

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
<b><i>This represents the final version (updated 30 April, 2021). New publications since our last update have been highlighted in blue.</i></b>							
COVID-19; pediatric; cardiac arrest; United States	29-Apr-21	<a href="#">A COVID-19-Positive Infant Presenting With Sudden Cardiac Arrest</a>	Pediatric Emergency Care	Letter to the Editor	The authors described the case of a SARS-CoV-2-positive infant in the United States presenting with sudden cardiac arrest [date not specified]. The 36-day-old infant was found unresponsive and not breathing, and emergency medical services were called. Cardio-pulmonary resuscitation, including endotracheal intubation, ventilation, and intra-osseous access, was initiated in the field. The spontaneous return of circulation was accomplished in approximately 5 min. The patient was asymptomatic before the onset of this catastrophic event and with no bacterial pathogen detected in the initial workup. The infant manifested a robust inflammatory response evidenced by high white blood cell count, elevated C-reactive protein, abnormal coagulation, elevated D-dimer levels, low fibrinogen, elevated ferritin, and positive SARS-CoV-2 IgG antibody. This clinical picture is suggestive of MIS-C, but fever and skin rashes were absent. Chest X-ray showed normal lungs without any cardiomegaly. Echocardiogram revealed reduced left ventricular function with a shortening fraction of 18% to 20% and an ejection fraction of 36% to 40%. There was mild mitral regurgitation without ventricular dilatation and no identifiable structural heart defects. This article demonstrates a case of COVID-19 presenting with sudden cardiac arrest in a child.	The authors described the case of a SARS-CoV-2-positive infant in the United States presenting with sudden cardiac arrest. The infant manifested a robust inflammatory response which is suggestive of MIS-C, but with absence of fever and skin rashes.	Pierre L, Kondamudi N, Adeyinka A, et al. A COVID-19-Positive Infant Presenting With Sudden Cardiac Arrest. <i>Pediatr Emerg Care.</i> 2021;37(5):e280-e281. doi:10.1097/PEC.0000000000002432.
COVID-19; pediatric; MIS-C; autopsy; pathology; Brazil	29-Apr-21	<a href="#">An autopsy study of the spectrum of severe COVID-19 in children: From SARS to different phenotypes of MIS-C</a>	EClinicalMedicine	Case Series	The authors described the pathology findings in 5 children and adolescents (age range=7 months-15 years) who died with SARS-CoV-2 infection in Brazil between 18 March-15 August 2020. Tissue samples from vital organs (lungs, heart, brain, kidneys, liver, and spleen) were analyzed by histology, electron microscopy (EM), RT-PCR and immunohistochemistry (IHC). 2 patients had other severe diseases previous to SARS-CoV-2 infection: 1 adolescent with adrenal carcinoma, who had diffuse alveolar damage (DAD) and thrombotic events, and 1 infant with Edwards syndrome, with severe COVID-19-related pneumonia, DAD, and syncytial giant cell hepatitis attributed to SARS-CoV-2 infection. The other 3 patients fulfilled the criteria for MIS-C with extrapulmonary manifestations attributed to SARS-CoV-2 infection (myocarditis, colitis, and acute encephalopathy with status epilepticus). Autopsy findings varied amongst patients and included mild to severe COVID-19 pneumonia, pulmonary micro-thrombosis, cerebral oedema with reactive gliosis, myocarditis, intestinal inflammation, and haemophagocytosis. SARS-CoV-2 RNA, antigens and virions were detected in several tissues by RT-PCR, IHC and EM, respectively. In all patients, SARS-CoV-2 was detected in lungs, heart, and kidneys by at least one method (RT-PCR, IHC or EM) and in endothelial cells from heart and brain in 2 patients with MIS-C (IHC). In addition, the study revealed for the first time the presence of SARS-CoV-2 in the brain tissue of a child with MIS-C with acute encephalopathy, and	The authors described the pathology findings in 5 children and adolescents who died with SARS-CoV-2 infection in Brazil between 18 March-15 August 2020. In all patients, SARS-CoV-2 was detected in lungs, heart, and kidneys by at least one method (RT-PCR, IHC or EM) and in endothelial cells from heart and brain in 2 patients with MIS-C (IHC). In addition, the study revealed for the first time the presence of SARS-CoV-2 in the brain tissue of a child with MIS-C with acute encephalopathy, and in the intestinal tissue of a child with acute colitis.	Duarte-Neto AN, Caldini EG, Gomes-Gouvêa MS, et al. An autopsy study of the spectrum of severe COVID-19 in children: From SARS to different phenotypes of MIS-C. <i>EClinicalMedicine.</i> 2021;35:100850. doi:10.1016/j.eclinm.2021.100850.

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					in the intestinal tissue of a child with acute colitis. The presence of SARS-CoV-2 in several organs, associated with cellular ultrastructural changes, reinforces the hypothesis that a direct effect of SARS-CoV-2 on tissues is involved in the pathogenesis of MIS-C.		
COVID-19; pediatric; acute parotitis; Turkey	28-Apr-21	<a href="#">Acute parotitis in a 4-year-old in association with COVID-19</a>	Journal of Paediatrics and Child Health	Brief Communication	The authors described a case of acute parotitis in a 4-year-old patient with COVID-19 in Turkey. The 4-year-old male presented with a day of malaise, diarrhea, vomiting and mild abdominal pain. His parents tested positive for SARS-CoV-2 by RT-PCR one day earlier. At presentation, the patient was hemodynamically stable with a completely normal physical examination. A combined oropharyngeal and nasopharyngeal swab was positive for SARS-CoV-2 by RT-PCR. 4 days later, he was admitted with right-sided facial swelling and pain, especially in the pre-auricular area and cheek, with difficulty swallowing. The swelling measured 2 x 2 cm, extended from the pre-auricular region to the mandible, and was soft and non-fluctuant. There was no purulent discharge after parotid massage. Other systems examinations were normal. Neck ultrasonography showed diffuse, hypoechoic enlargement of the parotid gland, compatible with acute parotitis. No pathological lymphadenopathy was detected. The patient was treated with a non-steroidal anti-inflammatory agent. At follow-up, 3 days later, his facial swelling had resolved. This case highlights the rare occurrence of COVID-19-associated parotitis in children.	The authors described a rare case of acute parotitis in a 4-year-old patient with COVID-19 in Turkey. The patient was treated with a non-steroidal anti-inflammatory for 3 days, after which the facial swelling resolved.	Ekemen Keles Y, Karadag Oncel E, Baysal M, et al. Acute parotitis in a 4-year-old in association with COVID-19. J Paediatr Child Health. 2021. doi:10.1111/jpc.15527.
COVID-19; pediatric; stroke; Iran	28-Apr-21	<a href="#">Stroke in a child with SARS-CoV-2 infection: A case report</a>	eNeurologicalSci	Case Report	The authors described a case of stroke in a pediatric patient with SARS-CoV-2 infection in Iran [date not specified]. The 10-year-old female had a severe headache in the right temporal area followed by facial distortion, tonic movements of the shoulders and the right leg, and loss of consciousness for 5 min. She was hospitalized due to the seizures and tested positive for SARS-CoV-2 by nasopharyngeal RT-PCR. One week before, she had had a low-grade fever and gastro-intestinal manifestations such as vomiting and abdominal pain for 2 days. She had no previous history of cough, shortness of breath, skin rash, or recent trauma. Acute infarction was seen in the right putamen, globus pallidus, and the posterior part of the insula. A small focal dilatation within M1 segment of the left middle cerebral artery (MCA) was also observed. Enoxaparin was prescribed until lack of thrombosis was confirmed (5 days), followed by aspirin treatment. According to this case report, SARS-CoV-2 infection may contribute to the occurrence and development of ischemic stroke in children.	The authors described a case of stroke in a pediatric patient with SARS-CoV-2 infection in Iran. Enoxaparin was prescribed until lack of thrombosis was confirmed (5 days), followed by aspirin treatment. According to this case report, SARS-CoV-2 infection may contribute to the occurrence and development of ischemic stroke in children.	Khosravia B, Moradvaesib B, Abedini M, et al. Stroke in a child with SARS-CoV-2 infection: A case report. eNeurologicalSci. 2021. doi:10.1016/j.ensci.2021.100345.

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COVID-19; hematology; pediatric COVID-19	28-Apr-21	<a href="#">Can Hematological Findings of COVID-19 in Pediatric Patients Guide Physicians about Clinical Severity?</a>	Turkish Journal of Hematology	Letter to the Editor	The authors conducted a retrospective study at a children's hospital in Izmir, Turkey, between 30 March-31 October 2020 to assess pediatric hematological findings. 9.1% (n=353) of the pediatric patients tested were diagnosed with COVID-19, 52.1% (n=184) of whom were male and the median age in the SARS-CoV-2 positive cohort was 9 years (range: 4 days-17 years). 2.5% (n=9), 83% (n=293), 10.8% (n=38) and 3.7% (n=13) cases were diagnosed as asymptomatic, mild, moderate, and severe/critical respectively. 47.9% of cases had neutropenia, followed by lymphocytosis (22.4%), lymphopenia (20.7%), leukopenia (9.1%), neutrophilia (6.5%) and thrombocytopenia 3.4%). Neutropenia was significantly more common in neonates (84.6%), while lymphocytosis and neutrophilia were significantly more common in infants (75.9%, p<0.001 and 23.3%, p<0.001 respectively). The neutrophil-to-lymphocyte ratio (NLR) was higher in severe/critical patients compared to asymptomatic, mild and moderate disease severity patients (p=0.25). The lymphocyte-to-white-blood-cell ratio was lower in severe/critical patients compared to asymptomatic, mild, and moderate severity patients (p=0.27). They also noted a significantly higher red cell distribution width (RDW) in severe patients (p=0.005). Median serum ferritin and D-dimer levels were significantly higher in patients with severe disease (p<0.001), with increased serum D-dimer associated with a 2.9-fold (p=0.022) higher risk of disease severity. Thus, the authors recommended close monitoring of leukocyte, lymphocyte, and platelet count, as well as serum D-dimer, ferritin, and RDW as markers of progression to clinical illness.	In their hematological findings, the authors found that the lymphocyte to white blood cell ratio was lower and the neutrophil-to-lymphocyte ratio was higher in severe/critical cases of COVID-19 compared to asymptomatic, mild, or moderate cases. Additionally, red cell distribution width, median serum D-dimer, and median serum ferritin levels were significantly higher in patients with severe disease.	Ötiken Arıkan K, Şahinkaya Ş, Böncüoğlu E, et al. Can Hematological Findings of COVID-19 in Pediatric Patients Guide Physicians about Clinical Severity? [published online ahead of print, 2021 Apr 28]. Turk J Haematol. 2021. doi:10.4274/tjh.galenos.2021.2021.0157
COVID-19; food security; obesity; overweight; stunting; wasting	27-Apr-21	<a href="#">Impact of COVID-19 on child malnutrition, obesity in women and household food insecurity in underserved urban settlements in Sri Lanka: a prospective follow up study</a>	Public Health Nutrition	Article	This prospective study examined changes and factors associated with child malnutrition, obesity in women, and household food insecurity in Sri Lanka before and after the first wave of COVID-19 pandemic. Height/length and weight of 109 children (mean age 39 months; range not provided) and women [ages not provided] from 207 households were measured, household food insecurity was assessed, and associated factors were gathered through interviewer administered questionnaires. Differences in measurements at baseline (September 2019) and follow-up studies (September 2020) were compared. The prevalence of children with wasting and overweight was higher in the follow-up study than at baseline (18.3% vs 13.7%; p=0.26 and 8.3% vs 3.7%; p=0.12 respectively). There was a decrease in prevalence of child stunting (14.7%vs11.9%; p=0.37). A change was not observed in overall obesity in women, which was around 30.7%. Repeated lockdown was associated with a significant reduction in food security from 57% to 30% in the current study (p<0.001). In light of these findings, the authors call for interventions to improve nutrition status of children and women, particularly since undernutrition can increase susceptibility to COVID-19.	This study examined changes and factors associated with child malnutrition, obesity in women, and household food insecurity in Sri Lanka before and after the first wave of COVID-19 pandemic. Results show an increase in wasting and overweight among children during the pandemic, while women had a persistent high prevalence of obesity, with no significant changes. In light of these findings, the authors call for interventions to improve nutrition status of children and women to minimize susceptibility to COVID-19.	Jayatissa R, Herath H, Perera AG, Dayaratne TT, De Alwis ND, Nanayakkara L. Impact of COVID-19 on child malnutrition, obesity in women and household food insecurity in underserved urban settlements in Sri Lanka: a prospective follow up study [published online, 2021 Apr 27]. Public Health Nutr. 2021;1-24. doi:10.1017/S1368980021001841

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Immunization coverage; Economic status; Public health; Covid-19; Brazil	27-Apr-21	<a href="#">Missed childhood immunizations during the COVID-19 pandemic in Brazil: analyses of routine statistics and of a national household survey</a>	Vaccine	Article	To examine the impact of the COVID-19 pandemic on routine childhood vaccination in Brazil, this study used data from 2 sources: 1) national data on the monthly number of vaccine doses (Bacille Calmette-Guerin, Hepatitis B, Polio, measles/mumps/rubella, or Pentavalent vaccine) administered to young children [mean age and range not reported] from January 2017 - June 2020; and 2) a survey in 133 large cities August 24-27, 2020 asking adult household members from 33,250 households whether children <3 years had missed any scheduled vaccinations during the pandemic. Corresponding vaccination cards were also examined. National data showed a 20% decline of vaccines administered to children aged ≥2 months during March and April 2020, relative to January and February 2020. After May, vaccination levels returned to pre-pandemic values. Survey data, based on the interviews and on examination of the vaccine cards, showed that 19.0% (95% CI 17.0-21.1%) and 20.6% (95% CI 19.0-23.1%) of children, respectively, had missed immunizations. Missed doses were most common in the North (Amazon) region and least common in the South and Southeast, and also more common among children from poor than from wealthy families [p-values not reported]. These results highlight an urgent need to booster immunization activities in the country to compensate for missed doses, and to reduce geographic and socio-economic inequalities.	This study examined the impact of the COVID-19 pandemic on routine childhood vaccination in Brazil based on 2 nationwide data sources. Results show a reduction of about 20% in child vaccinations, during March and April 2020, reverting to pre-pandemic levels in May. Children from poor families and from the least developed regions of the country were most affected. These results highlight an urgent need to booster immunization activities in the country to compensate for missed doses, and to reduce geographic and socio-economic inequalities.	Silveira MF, Tonial CT, Goretti K Maranhão A, et al. Missed childhood immunizations during the COVID-19 pandemic in Brazil: Analyses of routine statistics and of a national household survey. Vaccine. 2021. <a href="https://www.sciencedirect.com/science/article/pii/S0264410X21005053">https://www.sciencedirect.com/science/article/pii/S0264410X21005053</a> . doi: <a href="https://doi.org/10.1016/j.vaccine.2021.04.046">https://doi.org/10.1016/j.vaccine.2021.04.046</a>
COVID-19; pediatric; RT-PCR; computed tomography; Turkey	26-Apr-21	<a href="#">Comparison of computed tomography (CT) findings with RT-PCR in the diagnosis of COVID-19 in children</a>	Pediatric Pulmonology	Original Research	This retrospective archive study compared chest CT findings with RT-PCR test results in children aged 0-18 years with probable or definitive diagnosis of SARS-CoV-2 infection between 1 April-31 July 2020 in Turkey. 89 patients were included, and all had SARS-CoV-2 RT-PCR testing and CT scans performed. RT-PCR test results were positive in 56 patients (median age=14 years, IQR 7; n=20 male) and negative in 33 (median age=7 years, IQR 13; n=16 male). The presence of pulmonary lesions and consolidation were significantly more frequent in the RT-PCR-negative group compared to RT-PCR-positive group (p=0.037 and p=0.001, respectively). Lobe involvement of 0-25% was more common in the RT-PCR-positive group (p=0.001), and lobe involvements of 25-50% and 50-75% were significantly more common in the RT-PCR-negative group (p=0.001 and p=0.005, respectively). Central and perihilar involvement were more frequent in the RT-PCR-negative group (p=0.008 and p=0.005, respectively). These results show that although their predictive value may not be as typical as in adults, chest CT findings may have some benefit in predicting RT-PCR test positivity in children.	This retrospective archive study compared chest CT findings with RT-PCR test results in children aged 0-18 years with probable or definitive diagnosis of SARS-CoV-2 infection between 1 April-31 July 2020 in Turkey. The results show that although their predictive value may not be as typical as in adults, chest CT findings may have some benefit in predicting RT-PCR test positivity in children.	Bağcı Z, Keçeli AM. Comparison of computed tomography (CT) findings with RT-PCR in the diagnosis of COVID-19 in children. <i>Pediatr Pulmonol</i> . 2021. doi:10.1002/ppul.25426.

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COVID-19; Pregnancy; SARS-COV-2; anxiety; depression; mental health; stress	26-Apr-21	<a href="#">Stress, anxiety and depression in 1466 pregnant women during and before the COVID-19 pandemic: a Dutch cohort study</a>	Journal of Psychosomatic Obstetrics and Gynaecology	Original Research	This cohort study analyzed stress, anxiety, and depression in pregnant women during the COVID-19 pandemic. Pregnant women in the Netherlands were recruited via social media from May 21 - June 22, 2020 (n=1102) and completed a demographic questionnaire, the Hospital Anxiety and Depression Scale (HADS), and the Perceived Stress Scale (PSS-10). The possible PSS-10 score range is 0-40, with a higher score indicating more perceived stress. The control group consisted of pregnant women (n=364) who completed the HADS before COVID-19, between February 2019 and January 2020, for a separate study. The participants were older than the controls (mean age (SD): 32.02 (3.8) vs. 30.65 (4.3) years, p<0.001 [no ranges given]). In both groups, most women were in the third trimester (44.5% of participants, 49.5% of controls). The authors found no differences in clinically high levels of anxiety (HADS-A ≥ 8) and depression (HADS-D ≥ 8) in women during COVID-19 (19.5% and 13.2%, respectively) and before COVID-19 (23.1% and 15.7%, respectively). Furthermore, women who related their stress to the COVID-19 pandemic reported significantly higher overall stress levels on the PSS-10 compared to women with stress unrelated to COVID-19 (mean, 15.62; standard deviation [SD], 6.44 vs. mean, 10.28; SD, 5.48; p < 0.001). In contrast to previous studies, the pandemic did not increase anxiety and depression levels in this cohort of pregnant women. Interventions that specifically aim to reduce COVID-19 stress may help reduce overall stress levels in pregnant women during the pandemic.	This cohort study analyzed stress, anxiety, and depression in pregnant women in the Netherlands during the COVID-19 pandemic. In contrast to previous studies, the pandemic did not increase anxiety and depression levels in this cohort of pregnant women. However, women who related their stress to the COVID-19 pandemic reported higher overall stress than women with stress unrelated to the pandemic. Interventions that specifically aim to reduce COVID-19 stress may help reduce overall stress levels in pregnant women during the pandemic.	Zilver SJM, Broekman BFP, Hendrix YMGA, et al. Stress, anxiety and depression in 1466 pregnant women during and before the COVID-19 pandemic: a Dutch cohort study. J Psychosom Obstet Gynaecol. 2021 Apr 26:1-7. doi: 10.1080/0167482X.2021.1907338. PMID: 33900872.
COVID-19; delivery services; institutional deliveries; maternal and neonatal health; Pakistan	26-Apr-21	<a href="#">Factors Affecting Delivery Health Service Satisfaction of Women and Fear of COVID- 19: Implications for Maternal and Child Health in Pakistan</a>	Maternal and Child Health Journal	Original Research	This study identified factors influencing delivery service satisfaction during the COVID-19 pandemic and socio-demographic characteristics of women associated with greater fear of contracting SARS-CoV-2 during institutional deliveries in Pakistan. 190 women (53.7% aged between 20-29 years) who had given birth between May-June 2020 were included in the analysis. The results showed that 74.7% of women reported being afraid of contracting SARS-CoV-2. Women delivering at public hospitals compared to private hospitals, women with lower levels of education, women with more than 4 children, women with a monthly household income of between PKR 7,000- PKR 59,999/USD 42.01–360.06, unemployed, and currently married women showed greater fear of acquiring SARS-CoV-2 infection (p=0, p=0, p=0.001, p=0.001, p=0.001 and p=0.022 respectively). Factors that showed statistical significance in association with satisfaction with overall support during delivery included comfortable position and movement (p=0), confidence and trust in staff (p=0), involvement in decision-making (p=0), and staff assistance in a reasonable time (p=0.04). These findings indicate that women from disadvantaged backgrounds suffering from illiteracy, unemployment, and low household income have a	This study identified factors influencing delivery service satisfaction during the COVID-19 pandemic and socio-demographic characteristics of women associated with greater fear of catching SARS-CoV-2 during institutional deliveries in Pakistan. The findings indicate that women from disadvantaged backgrounds suffering from illiteracy, unemployment, and low household income have a greater fear of contracting SARS-CoV-2 during institutional deliveries. The authors recommend improved regulation of delivery services in both public and private hospitals and increased	Jafree SR, Momina A, Muazzam A, et al. Factors Affecting Delivery Health Service Satisfaction of Women and Fear of COVID- 19: Implications for Maternal and Child Health in Pakistan. Matern Child Health J. 2021. doi:10.1007/s10995-021-03140-4.

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					greater fear of contracting SARS-CoV-2 during institutional deliveries. The authors recommend improved regulation of delivery services in both public and private hospitals and increased protection for disadvantaged women groups to maintain service quality during the pandemic.	protection for disadvantaged women groups to maintain service quality during the pandemic.	
COVID-19; pediatric; orthogonal testing; seroprevalence; United States	26-Apr-21	<a href="#">Unexpected False-Positive Rates in Pediatric SARS-CoV-2 Serology Using the EUROIMMUN Anti-SARS-CoV-2 ELISA IgG Assay</a>	American Journal of Clinical Pathology	Brief Report	This study assessed remnant serum samples for routine bloodwork from 2,338 pediatric patients in the United States using the EUROIMMUN Anti-SARS-CoV-2 ELISA IgG (EuroIGG) assay. Reactive cases with sufficient volume were also tested using 3 additional commercial assays. Samples were collected from April 27 - May 19, 2020, and from June 22 - July 4, 2020. The results showed that 85 specimens were reactive according to the EuroIGG assay, yielding 3.64% (95% CI 2.91-4.48%) seropositivity, of which 73 specimens had sufficient remaining volume for confirmation by orthogonal repeat testing. Overall, 19.18% (95% CI 10.18-28.18%) of samples were positive on a second and/or third orthogonal assay. This 80.82% false positivity rate is disproportionate to the expected false positivity rate of 50% given the pediatric population prevalence (approximately 1%) and assay performance (sensitivity: 98.7% at >14 days; specificity: 98.9%). The results indicate that in pediatric populations, false positives may be more common than assay and prevalence parameters would predict. Orthogonal testing may be important in pediatric seroprevalence analyses for accurate results.	This study assessed remnant serum samples for routine bloodwork from 2,338 pediatric patients in the United States using the EUROIMMUN Anti-SARS-CoV-2 ELISA IgG (EuroIGG) assay. The results indicate that in pediatric populations, false positives may be more common than assay and prevalence parameters would predict. Orthogonal testing may be important in pediatric seroprevalence analyses for accurate results.	Geisler D, Freeman MC, Rapsinski GJ, et al. Unexpected False-Positive Rates in Pediatric SARS-CoV-2 Serology Using the EUROIMMUN Anti-SARS-CoV-2 ELISA IgG Assay. Am J Clin Pathol. 2021:aqab033. doi:10.1093/ajcp/aqab033.
COVID-19; pediatric; T-cell acute lymphoblastic leukemia; induction chemotherapy; United Kingdom	26-Apr-21	<a href="#">SARS CoV-2 Antibody Persistence During Induction Chemotherapy for Pediatric T-Cell Acute Lymphoblastic Leukemia [Free Access to Abstract Only]</a>	Journal of Pediatric Hematology/Oncology	Letter to the Editor	In this letter, the authors described the course of concurrent SARS-CoV-2 infection in a 15-year-old male presenting with T-cell acute lymphoblastic leukemia (T-ALL) in the United Kingdom [date not specified]. The patient initially presented with bilateral cervical lymphadenopathy and fever with a white cell count of 98x10 <sup>9</sup> /L with lymphoblasts on the blood film. He tested negative for SARS-CoV-2 via nasopharyngeal RT-PCR on admission, while his asymptomatic parents tested positive. Antibody testing of the patient before admission revealed detectable SARS-CoV-2 antibodies. The diagnosis of T-ALL was confirmed by flow cytometry, and he was treated with dexamethasone, vincristine, daunorubicin, and pegasparginase. His chest x-ray showed a mediastinal mass with clear lung fields. He had sleep orthopnea with low oxygen saturations presumed secondary to bulky cervical lymphadenopathy. He developed brief biochemical signs of tumor lysis syndrome, which resolved following rasburicase administration and hyperhydration. By day 8, he was discharged and received the remainder of induction chemotherapy as an outpatient with no delays. He tested negative for SARS-CoV-2 via nasopharyngeal RT-PCR throughout induction therapy, while his SARS-CoV-2 antibodies remained detectable. In conclusion, concurrent SARS-CoV-2 infection did not affect the ability to	The authors described the course of concurrent SARS-CoV-2 infection in a 15-year-old male presenting with T-cell acute lymphoblastic leukemia (T-ALL) in the United Kingdom [date not specified]. He tested negative for SARS-CoV-2 via nasopharyngeal RT-PCR throughout induction chemotherapy, while his SARS-CoV-2 antibodies remained detectable. In conclusion, concurrent SARS-CoV-2 infection did not affect the ability to deliver induction chemotherapy, and there was no reactivation of the SARS-CoV-2 virus nor loss of antibodies.	Pearce J, Friar S, Jigoulina G, et al. SARS CoV-2 Antibody Persistence During Induction Chemotherapy for Pediatric T-Cell Acute Lymphoblastic Leukemia. J Pediatr Hematol Oncol. 2021. doi:10.1097/MPH.00000000000002182.

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					deliver induction chemotherapy, and there was no reactivation of the SARS-CoV-2 virus nor loss of antibodies.		
Pediatrics, clinical trials, children, efficiency, evidence	26-Apr-21	<a href="#">Incorporating Adult Evidence Into Pediatric Research and Practice Bayesian Designs to Expedite Obtaining Child-Specific Evidence</a>	Journal of the American Medical Association (JAMA)	Viewpoint	In this viewpoint, the authors discuss challenges with generating child-specific data in a timeframe that is clinically actionable, as has been demonstrated during the COVID-19 pandemic. For example, hydroxychloroquine trials in children were planned at the early stages of the pandemic but were quickly abandoned with the loss of equipoise. There have been several attempts to use existing adult data to inform design and analysis of a pediatric trial, which allows pediatric trials to be designed for increased efficiency. However, this leaves pediatric clinical trials lagging adult clinical trials. The authors propose that a coordinated infrastructure of adult and pediatric clinical trials be performed in synergy when adequate safety data are available in the pediatric population. This integrated approach could increase the efficiency of knowledge generation, with frequent interim analyses based on emerging data from adult trials. The ability to reach statistically sound conclusions in children for benefit, futility, or harm could potentially be increased by using both pediatric and adult data. In addition, this model could avoid the loss of equipoise during a rapidly changing pandemic. The authors conclude that obtaining child-specific data is essential to inform evidence, and incorporating evidence from adult trials could help directly address the main challenges of conducting pediatric trials.	In this viewpoint, the authors discuss challenges with generating child-specific data in a clinically actionable timeframe and propose that a coordinated infrastructure of adult and pediatric clinical trials be performed in synergy when adequate safety data are available in the pediatric population. This integrated approach could potentially increase efficiency of knowledge generation, increase the ability to draw statistically sound conclusions, and avoid a loss of equipoise during a rapidly changing pandemic such as the COVID-19 pandemic. The authors conclude that incorporating evidence of adult trials could help address the main challenges of conducting pediatric trials.	Murthy S, Fontela P, Berry S. Incorporating Adult Evidence Into Pediatric Research and Practice: Bayesian Designs to Expedite Obtaining Child-Specific Evidence. JAMA. doi:10.1001/jama.2020.25007
MIS-C; diagnosis; systematic review; gastrointestinal involvement; cardiac dysfunction	25-Apr-21	<a href="#">A systematic review on Multisystem Inflammatory Syndrome in Children (MIS-C) with COVID-19: Development of a scoring system for clinical diagnosis</a>	medRxiv	Preprint (not peer-reviewed)	This systematic review evaluates the case definition, clinical presentations, and management of pediatric COVID-19 with or without MIS-C. Individual patient data for 333 children (<18 years) from 119 studies published Jan 1 - June 1, 2020 were analyzed. The authors created a scoring system per WHO criteria to identify patients with MIS-C, based on a minimum score of 6. A score of 3 was given for the presence of fever (>24h) and a score of 1 for lab-confirmed SARS-CoV-2. A score of 1 could be added for: a) rash, conjunctivitis, or muco-cutaneous inflammation; hypotension or shock; b) diarrhea, vomiting, or abdominal pain; c) myocardial dysfunction (abnormal eco-cardiography or elevated Troponin or N-terminal pro B-type Natriuretic Peptide); e) evidence of coagulopathy (elevated prothrombin time, partial thromboplastin time, or D-dimer); f) evidence of inflammation (elevated erythrocyte sedimentation rate, C-reactive protein, or procalcitonin). A negative score of (-3) is added with a diagnosis of sepsis, staphylococcal, or streptococcal shock syndrome. Based on this scoring system, 18% (52/289) of symptomatic cases were identified to be MIS-C. A greater proportion of MIS-C patients were 5-14 years old (65.4% vs 40.6%; p=0.004), had cardiac involvement	This systematic review evaluates the case definition, clinical presentations, and management of pediatric COVID-19 with or without MIS-C. Based on review of 333 children from 119 studies, the authors conclude that children with COVID-19 having cardiac and/or gastro-intestinal involvement are more likely to develop MIS-C and children with MIS-C have higher mortality rates. The authors also developed a scoring system based on WHO criteria for MIS-C to help clinicians with diagnosis and timely management.	Surve SV, Joseph S, Gajbhiye RK, Mahale SD, Modi DN. A systematic review on multisystem inflammatory syndrome in children (MIS-C) with COVID-19: Development of a scoring system for clinical diagnosis. medRxiv. 2021:2021.04.23.21255879. doi: 10.1101/2021.04.23.21255879 .

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					(80% vs 20%; p<0.0001), gastro-intestinal involvement (71% vs 12%; p<0.0001), and lymphopenia (54.2% vs 29.7%; p=0.001). In addition to inflammatory markers identified through scoring, MIS-C patients more often had elevated Ferritin (p=0.003), LDH (p=0.048), Fibrinogen (p<0.0001), and IL-6 (p=0.048). Children with MIS-C were less likely to have cough (25% vs 50%; p=0.001 [as seen in Table 3; discrepancy with abstract]) or rhinorrhea (4% vs 22.8%; p=0.002). MIS-C patients more often required ICU admission (63.5% vs 15.2%; p<0.0001) and had higher mortality rates (10% vs 1%; p=0.001). The authors conclude that children with COVID-19 having cardiac and/or gastro-intestinal involvement are more likely to develop MIS-C, and this scoring system can help clinicians in diagnosis and timely management.		
Vaccination, safety, breastfeeding, mRNA vaccine, maternal outcomes, children	25-Apr-21	<a href="#">Maternal and child outcomes reported by breastfeeding women following mRNA COVID-19 vaccination</a>	medRxiv	Preprint (not peer-reviewed)	In this study, the authors evaluated vaccinated breastfeeding women and their breastfed children. 180 breastfeeding women in the USA who received an mRNA vaccine from December 14, 2020-February 1, 2021 were enrolled at the University of California, San Diego, USA (128 women (71.1%) received Pfizer and 52 (28.9%) received Moderna). Maternal symptoms and child events were collected by maternal interview and questionnaire for 7 days following each dose. Child age at enrollment averaged 7.47 months (range 0.09-27.45 months). Following dose one, similar proportions of women reported any vaccine symptom (89.4% Pfizer; 98.1% Moderna). Following dose two, women who received Moderna were significantly more likely to report systemic side effects or localized symptoms than women who received Pfizer (all p's <0.05). A small proportion of women reported a reduction in milk supply, with a significant difference following dose 2 by brand (8.0% vs. 23.4% for Pfizer and Moderna, respectively, p<0.05). However, in all cases milk production returned to normal within 72 hours. No serious adverse events were noted. Few events were reported for children. Significantly more drowsiness was reported for children whose mothers received Moderna vs. Pfizer (0% vs. 6.4%, p=0.02). The authors conclude that these data are reassuring regarding the safety of vaccination in breastfeeding women with either of the mRNA COVID-19 vaccines.	In this study, the authors evaluated vaccinated breastfeeding women in the USA and their breastfed children following mRNA vaccination with either Pfizer or Moderna vaccines. More than 85% of 180 breastfeeding women reported local or systemic symptoms, with higher frequency following the second dose especially for Moderna. Few symptoms were reported in their breastfed children, and no serious adverse events were noted. The authors conclude that these data are reassuring regarding the safety of vaccination in breastfeeding women with either of the mRNA COVID-19 vaccines.	Betrand K, Honerkamp-Smith G, Chambers C. Maternal and child outcomes reported by breastfeeding women following mRNA COVID-19 vaccination. medRxiv. 2021; doi.org/10.1101/2021.04.21.21255841
COVID-19; pregnancy; prenatal care; psychological impact; Brazil	25-Apr-21	<a href="#">Assessment of the psychological impact of the COVID-19 pandemic on pregnant women [Free Access to Abstract Only]</a>	The Journal of Maternal-Fetal and Neonatal Medicine	Original Research	This cross-sectional observational study evaluated the psychological impact of the COVID-19 pandemic on pregnant women in Brazil [date not specified]. A form containing the validated Impact of Event Scale – Revised (IES-R) questionnaire was completed by 106 participants [age not specified]. 15, 30, and 61 participants were in their first, second, and third gestational trimesters, respectively. The total score (ranging from 0-88) was the arithmetic sum of the classification of 22 items (on a scale of severeness that ranged from 0-4 for each item). The total score of the IES-R was divided into 4 subcategories: 0-23 (normal), 24-32 (mild psychological impact), 33-36 (moderate psychological	This cross-sectional observational study evaluated the psychological impact of the COVID-19 pandemic on pregnant women in Brazil. Pregnant women who were not infected demonstrated less psychological impact than infected women. In addition, women with higher psychological impact were	Moreira Ramiro AC, Côrtes Ribeiro C, Leles Vieira de Souza B, et al. Assessment of the psychological impact of the COVID-19 pandemic on pregnant women. J Matern Fetal Neonatal Med. 2021;1-5. doi:10.1080/14767058.2021.1915976.

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					impact) and >37 (severe psychological impact). 13 respondents had SARS-CoV-2 infection during pregnancy. 51.89% of women presented some degree of psychological impact – 20 participants had a mild impact, 6 moderate impact, and 29 severe impact. The psychological impact was more prominent in women in their third gestational trimester – 36.07% of these women presented severe impact, 4.92% moderated impact and 14.75% mild impact. The mean IES-R score was 35.62 in the group of infected patients, indicating a higher psychological impact compared to the mean score of 26.76 in the group of uninfected patients. Patients with higher psychological impact were more likely to miss their ultrasound appointments, compared to those with lower psychological impact (p<0.05). The findings indicated a psychological impact of the pandemic on pregnant women.	more likely to miss their ultrasound appointments, compared to those with lower psychological impact. The findings indicated a psychological impact of the pandemic on pregnant women.	
prevalence; cycle threshold values; infectivity; asymptomatic; pediatric; Germany	24-Apr-21	<a href="#">COVID-19 study found that 0.4% of 5,730 asymptomatic children aged 0-18 tested positive for virus before hospital procedures or admission</a>	Acta Paediatrica	Brief Report	This study estimated the prevalence of SARS-CoV-2 infection in children (0-18 years) presenting to a university hospital from 13 March to 13 December 2020; results were excluded if the child had symptoms suggesting COVID-19 or recent contact with a confirmed case. 5,730 RT-PCR results were collected, including 2,315 tests from children with an underlying chronic disease. 22 (0.4%) of 5,730 results were positive. The median age of positive patients was 12.0 years (range 0.8-17.4 years), significantly higher compared to 5.2 years (range 0-17.9 years) for patients who tested negative (p=0.001). Of the patients who tested positive, 10/22 (45.5%) had an underlying chronic disease; however there was no significant difference in the prevalence of test positivity between children with or without chronic conditions (10/2,315, 0.4% vs 12/3,415, 0.4%, respectively; p=1.0). Cycle threshold values were similar among different age groups (p=0.67) and among patients with or without underlying comorbidities (p=0.26), indicating no significant differences in infectivity. These data support previous findings that children with underlying conditions are no more likely to be infected (or infect others) than children without; however, there are conflicting reports regarding whether symptomatic children <5 years old are more infectious than children aged 5-17 years. Despite the low percentage of unexpected positive cases in asymptomatic patients in this cohort and others, the authors emphasize the importance of SARS-CoV-2 screening strategies that do not rely on clinical presentation alone, and universal precautions such as social distancing, mask wearing, and cohorting in healthcare settings.	This study estimated the prevalence of SARS-CoV-2 infection in asymptomatic children presenting to a university hospital from in Cologne, Germany. Of 5,730 RT-PCR tests, 22 (0.4%) were positive. Cycle threshold values were similar among different age groups and among patients with or without underlying comorbidities, indicating no significant differences in infectivity. Prevalence of test positivity was similar between children with and without underlying chronic illness. The authors emphasize the importance of universal precautions and SARS-CoV-2 screening strategies that do not rely on clinical presentation alone.	Meyer M, Ruebsteck E, Gruell H, et al. COVID-19 study found that 0.4% of 5,730 asymptomatic children aged 0-18 tested positive for virus before hospital procedures or admission [published online, 2021 Apr 24]. Acta Paediatr. 2021;10.1111/apa.15884. doi:10.1111/apa.15884

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Gestational Diabetes; Diabetes Mellitus Type 1; Diabetes Mellitus Type 2; COVID-19; Pregnancy; Vaccines	24-Apr-21	<a href="#">COVID-19 Vaccination in Pregnant and Lactating Diabetic Women</a>	Nutrition, Metabolism and Cardiovascular Diseases	Viewpoint	This viewpoint aims to discuss the available data on COVID-19 vaccination for diabetic women during pregnancy and/or breastfeeding. It is known that pregnant women with COVID-19 are at increased risk for admission to the ICU and have higher rates of preterm delivery. Additionally, a study by Zhang Y et al. showed diabetic and/or obese patients with COVID-19 are associated with worse prognosis and increased risk of mortality (OR: 5.47, 95% CI: 1.56-19.82, p=0.01) compared to patients without diabetes or obesity. Because of these co-morbidities, diabetic and/or obese pregnant women are a vulnerable population where SARS-CoV-2 infection prevention is crucial for both mother and fetus. However, since pregnant women are excluded from clinical trials, there is very little information available on safety and efficacy of the COVID-19 or any mRNA vaccine during pregnancy. Despite this, there is no reason to expect that different effects of mRNA vaccines in pregnant as compare to non-pregnant women as vaccination during pregnancy is a common practice as the benefit of vaccination is likely to outweigh the potential risk. Pregnant women should be counselled by their healthcare provider before receiving the COVID-19 vaccine, but general consensus is that diabetic women during pregnancy or currently breastfeeding may receive the vaccine to prevent the health complications associated with SARS-CoV-2 infection.	This viewpoint discusses available data on COVID-19 vaccination for diabetic women during pregnancy and/or breastfeeding. Diabetic and/or obese pregnant women are a vulnerable population where SARS-CoV-2 infection prevention is crucial for both mother and fetus. Pregnant women should be counselled by their healthcare provider before vaccination, but general consensus is that diabetic women who are pregnant or breastfeeding may receive the vaccine to prevent health complications associated with SARS-CoV-2 infection.	Sculli MA, Formoso G, Sciacca L. COVID-19 Vaccination in Pregnant and Lactating Diabetic Women [published online ahead of print, 2021 Apr 24]. Nutr Metab Cardiovasc Dis. 2021; S0939-4753(21)00182-4. doi:10.1016/j.numecd.2021.04.012
COVID-19; lockdown; pediatric traumatology; France	<a href="#">23-Apr-21</a>	<a href="#">Pediatric traumatology in "green zone" during Covid-19 lockdown: a single-center study</a>	Orthopaedics & Traumatology: Surgery & Research	Original Research	This prospective study compared pediatric traumatology emergency activity in France during the COVID-19 lockdown (17 March-10 May 2020) to that during the same period in the previous 3 years (2017, 2018 and 2019). During lockdown, emergency consultations at the study hospital decreased by 50% (n=1,421 vs. an average of n=2,854 in previous years, p<0.05). The number of patients operated on was 86% of that in the previous 3 years, which the authors state is not a significant decline [no p-value given]. Surgical patients during lockdown had a mean age of 7.6 years (median=7.5 years) compared to 9.3 years (median=9.4 years) pre-pandemic (p<0.05). The rate of domestic accidents (59% vs. 23%, p<0.05) and trampoline accidents (16% vs. 5%, p<0.05) increased during lockdown, while sport accidents (2% vs. 24%, p<0.05) decreased. Wounds were more frequent, at 35% of procedures, versus 13% previously (p<0.05). The rate of surgery for upper-limb fracture decreased (48% vs. 69%, p<0.05), while that of lower-limb fracture was unchanged. Distal forearm fracture was less frequent, as was distal tibial fracture. The results indicate decrease in pediatric traumatology emergency activity during lockdown, without a comparable decrease in surgery. The authors recommend re-organizing emergency admission to free teams for management of COVID-19 patients, while maintaining operative rooms for emergency surgery.	This prospective study compared pediatric traumatology emergency activity in France during the COVID-19 lockdown (17 March-10 May 2020) to that during the same period in the previous 3 years (2017, 2018 and 2019). The results indicate decrease in pediatric traumatology emergency activity during lockdown, without a comparable decrease in surgery. The authors recommend re-organizing emergency admission to free teams for management of COVID-19 patients, while maintaining operative rooms for emergency surgery.	Bolzinger M, Lopin G, Accabbled F, et al. Pediatric traumatology in "green zone" during Covid-19 lockdown: a single-center study. Orthop Traumatol Surg Res. 2021;S1877-0568(21)00171-7. doi:10.1016/j.otsr.2021.102946.

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COVID-19; cesarean ectopic; cesarean scar pregnancy; hysterectomy; United States	23-Apr-21	<a href="#">Mid-trimester cesarean scar pregnancy: a case report</a>	Fertility Research and Practice	Case Report	The authors reported a unique case of cesarean scar pregnancy in the United States, demonstrating importance of early management and diagnosis. The 30-year-old pregnant woman with prior history of 2 C-sections was found to have cesarean scar pregnancy at approximately 13 weeks' gestation and underwent a gravid hysterectomy [date not specified]. The patient had initially presented with complaint of a rash and was incidentally found to have a positive beta-human chorionic gonadotropin (hCG). In further discussion with the patient, she reported a history of some crampy abdominal pain. Ultrasound revealed a gestational sac with an embryo measuring 64 mm, corresponding to 13 weeks gestational age, that was implanted in the lower uterine segment likely within the cesarean section scar. There was no myometrium seen surrounding the sac. Ultimately, the patient underwent a gravid hysterectomy and was discharged on post-operative day 3 without complication. While rare, cesarean scar pregnancies should be considered on the differential diagnosis of any pregnant patient with history of C-section who presents in early pregnancy with vaginal bleeding and/or cramping. According to the authors, given the increased rates of C-sections during the COVID-19 pandemic, cases of cesarean scar pregnancies may be anticipated.	The authors reported a unique case of cesarean scar pregnancy in the United States, demonstrating importance of early management and diagnosis. While rare, cesarean scar pregnancies should be considered on the differential diagnosis of any pregnant patient with history of C-section who presents in early pregnancy with vaginal bleeding and/or cramping. According to the authors, given the increased rates of C-sections during the COVID-19 pandemic, cases of cesarean scar pregnancies may be anticipated.	Fowler ML, Little S, Muto M, et al. Mid-trimester cesarean scar pregnancy: a case report. <i>Fertil Res Pract.</i> 2021;7(1):10. doi:10.1186/s40738-021-00103-9.
COVID-19; neonate; preterm infant; vertical transmission; Iran	23-Apr-21	<a href="#">Clinical course, radiological findings and late outcome in preterm infant with suspected vertical transmission born to a mother with severe COVID-19 pneumonia: a case report</a>	Journal of Medical Case Reports	Case Report	The authors presented the case of a preterm Iranian infant born at 32 weeks of gestation to a Persian mother with severe COVID-19 pneumonia on 11 March 2020. The mother had been suffering from fever, non-productive cough, myalgia, anorexia, and nausea for the preceding 2 weeks. She underwent C-section, and amniotic fluid was positive for SARS-CoV-2 by RT-PCR. The neonate was separated from the mother immediately after birth. The neonate showed early-onset infection with SARS-CoV-2, confirmed by pharyngeal RT-PCR within 24 hours after birth, suggesting vertical transmission. Chest X-ray of the infant showed a pneumomediastinum/pneumothorax needing chest drain insertion due to oxygen desaturation. A lung CT scan revealed patchy shadows in the peripheral parts of the lung. The results of repeated pharyngeal swab samples for SARS-CoV-2 on the 16th and 18th days of life were negative. The neonate was discharged home on day 30 of life. Unfortunately, the mother died 14 days after delivery. This case suggests a possible vertical transmission of SARS-CoV-2 from mother to infant.	The authors presented the case of a preterm Iranian infant born at 32 weeks of gestation to a Persian mother with severe COVID-19 pneumonia on 11 March 2020. This case suggests a possible vertical transmission of SARS-CoV-2 from mother to infant.	Farhadi R, Mehrpisheh S, Ghaffari V, et al. Clinical course, radiological findings and late outcome in preterm infant with suspected vertical transmission born to a mother with severe COVID-19 pneumonia: a case report. <i>J Med Case Rep.</i> 2021;15(1):213. doi:10.1186/s13256-021-02835-0.
COVID-19 pandemic; adolescent; mental health	23-Apr-21	<a href="#">Changes in adolescent mental health during the covid pandemic</a>	Minerva Pediatrics	Original Research	This study aims to draw attention to the COVID-19 pandemic-specific factors that might be associated with the severity of depression, anxiety, and COVID-19 phobia of high school students in Turkey. 1,431 high school students (56.7% female, 30.0% grade 12, range grade 9-12, age range 14-18 years) completed an online questionnaire about themselves and the changes in their lives during the pandemic. Findings showed that being female is an increased risk factor for anxiety, depression, and COVID-19 phobia	This study aims to draw attention to the COVID-19 pandemic-specific factors that might be associated with the severity of depression, anxiety, and COVID-19 phobia of high school students in Turkey. The authors conclude changes in	Bilginer Ç, Yildirim S, Çekin Yılmaz B, Beyhun E, Karadeniz S. Changes in adolescent mental health during the covid pandemic [published online ahead of print, 2021 Apr 23]. <i>Minerva Peditatr (Torino).</i> 2021;10.23736/S2724-

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					( $p < 0.001$ for all). In addition, following the official daily COVID-19 data ( $p < 0.001$ ) and having a healthcare professional in the building of residence ( $p = 0.019$ ) are significant risk factors for COVID-19 phobia. Having a psychiatric disorder ( $p < 0.001$ ), having a chronic disease ( $p = 0.023$ ), losing anyone due to COVID-19 ( $p = 0.009$ ), undergoing a COVID-19 diagnostic test ( $p = 0.045$ ), and meeting friends in person ( $p = 0.02$ ) are increased risk factors for anxiety during the pandemic. Having a psychiatric disorder ( $p < 0.001$ ), losing anyone due to COVID-19 ( $p = 0.016$ ), and meeting friends in person ( $p = 0.02$ ) are increased risk factors for depression during the pandemic. The authors conclude changes in adolescents' lives caused by the COVID-19 pandemic are negatively affecting their mental health. Studies are needed to maintain the mental well-being of adolescents under the conditions of this pandemic.	adolescents' lives caused by the COVID-19 pandemic are negatively affecting their mental health and further studies are needed to maintain the mental well-being of adolescents under the conditions of this pandemic.	5276.21.06178-4. doi:10.23736/52724-5276.21.06178-4
Anxiety; COVID-19; Depression; Maternal insomnia.	23-Apr-21	<a href="#">Maternal insomnia during the COVID-19 pandemic: associations with depression and anxiety</a>	Social Psychiatry and Psychiatric Epidemiology	Original Research	This study examines insomnia and psychological factors among pregnant and lying-in women during the COVID-19 pandemic in China. 2235 pregnant and lying-in women (mean age 30.25 years, range 19-47 years) from 12 provinces in China completed electronic questionnaires assessing demographic information and levels of depression, anxiety, and insomnia between February 28 – April 26, 2020. The prevalence of insomnia in the sample was 18.9%. Depression ( $p < 0.001$ ) and anxiety ( $p < 0.05$ ) were significant predictors of insomnia, and more indicative of insomnia than demographic variables. Participants in high-risk areas of infection, those with a disease history, those with economic losses due to the outbreak, and those in the postpartum period had significantly higher insomnia scores ( $p < 0.001$ for all). The authors conclude the prevalence of insomnia among pregnant and lying-in women is not serious possibly because the epidemic in China was under control during the data collection period. Furthermore, they suggest that cultural factors may play an important role in insomnia research because traditional Chinese culture, which they describe as a culture of diligence, may minimize sleep problems. They report that in such a social and cultural context, people may think long periods of sleep are a sign of laziness, and thus participants may underreport insomnia because they do not perceive it as a problem.	This study examines insomnia and psychological factors among pregnant and lying-in women during the COVID-19 pandemic in China. The authors conclude that insomnia is not a significant problem amongst pregnant and lying-in women and that this is possibly explained by cultural factors minimizing the perception of insomnia as a health problem.	Wang J, Zhou Y, Qian W, Zhou Y, Han R, Liu Z. Maternal insomnia during the COVID-19 pandemic: associations with depression and anxiety [published online ahead of print, 2021 Apr 23]. <i>Soc Psychiatry Psychiatr Epidemiol</i> . 2021;10.1007/s00127-021-02072-2. doi:10.1007/s00127-021-02072-2
COVID-19; Israel; Parenting stress; Fathers; Mothers; Meaning in life; Marital satisfaction	23-Apr-21	<a href="#">Parenting Stress among New Parents Before and During the COVID-19 Pandemic</a>	Child Abuse and Neglect	Original Research	This paper examined the effect of the COVID-19 pandemic on parenting stress in Israel. Questionnaires were distributed to parents of infants 3-12 months old ( $n = 1,591$ ) from August 2018-May 2019 before the pandemic ( $n = 985$ ) and from April 8-13, 2020 during the pandemic ( $n = 606$ ). On the Parenting Stress Index-Short Form, higher scores indicated higher parenting stress (possible score 1-5); parenting stress was higher during the pandemic (mean = 2.12) than before the pandemic (mean = 2.05) ( $p < 0.05$ ). On the Meaning in Life Questionnaire, higher scores indicated a higher perceived level of meaning in life (possible score 1-7). Perceived	This paper examined the effect of the COVID-19 pandemic on parenting stress in Israel, exploring differences in parenting stress among new parents before and during the pandemic, the role of background and personal variables, and the possibility that the presence of the	Taubman-Ben-Ari, O., Ben-Yaakov, O., Chasson, M. Parenting Stress among New Parents Before and During the COVID-19 Pandemic. <i>Child Abuse &amp; Neglect</i> . 2021. doi.org/10.1016/j.chiabu.2021.105080

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					meaning in life was higher before the pandemic (mean = 5.29) than during the pandemic (mean = 5.19), but the difference was not statistically significant. On the Relationship Assessment Scale (RAS), higher scores indicated higher marital satisfaction (possible score 1-7). The RAS score was higher during the pandemic (mean = 4.62) than before the pandemic (mean = 4.44) (p<0.05). Finally, a sociodemographic questionnaire was used to evaluate the parents' background characteristics. The study found that the association between gender and stress was moderated by presence of the pandemic, with fathers reporting greater increases in stress during the pandemic (p<0.001). The study found that sociodemographic variables, perception of the childbirth as traumatic, lower perceived meaning in life, higher search for meaning, less marital satisfaction, and presence of pandemic were all associated with greater parenting stress.	pandemic moderated the associations of gender and personal resources with parenting stress. The study found that sociodemographic variables, perception of the childbirth as traumatic, lower perceived meaning in life, higher search for meaning, less marital satisfaction, and presence of the pandemic were all associated with greater parenting stress.	
COVID-19; emergency caesarean section; neonatal outcome; obstetrics anaesthesia; United Kingdom	23-Apr-21	<a href="#">Decision-to-delivery interval and neonatal outcomes for category-1 caesarean sections during the COVID-19 pandemic</a>	Anaesthesia	Article	The authors investigated whether the COVID-19 pandemic affected the decision-to-delivery interval and influenced neonatal outcomes in patients who underwent category-1 C-section in the United Kingdom. Records of 562 patients (median age=31 yrs, range=15-47 yrs) who underwent emergency C-section between 1 April-1 July 2019 in 7 hospitals (pre-COVID-19 group) were compared with 577 emergency C-sections (median age=31 yrs, range=17-46 yrs) during the COVID-19 pandemic (1 April-1 July 2020) (post-COVID-19 group). The use of general anaesthesia decreased significantly from the pre- to post-COVID-19 groups (RR=0.48, 95% CI 0.37-0.62, p<0.0001). The regional to general anaesthesia conversion rate across the 7 hospitals also significantly declined (RR=0.41, 95% CI 0.21-0.81, p=0.0099). Compared with the pre-COVID-19 group, the post-COVID-19 group had an increase in median decision-to-delivery interval (26 min, range=4-124 min vs. 27 min, range=3-102 min; p=0.043) and a decrease in the number of C-sections meeting the decision-to-delivery interval target of <30 min (66.5% vs. 60.5%; p=0.02). The incidence of adverse neonatal outcomes was similar in the pre- and post-COVID-19 groups (24.6% vs. 24%, respectively, p=0.85). The small increase in decision-to-delivery interval during the COVID-19 pandemic did not adversely affect neonatal outcomes. The findings indicate the safe use of regional anaesthesia for category-1 C-section during the pandemic, except in those cases which warrant the most urgent delivery.	The authors investigated whether the COVID-19 pandemic affected the decision-to-delivery interval and influenced neonatal outcomes in patients who underwent category-1 C-section in the United Kingdom. The findings indicate the safe use of regional anaesthesia for category-1 C-section during the pandemic, except in those cases which warrant the most urgent delivery.	Bhatia K, Columb M, Bewlay A, et al. Decision-to-delivery interval and neonatal outcomes for category-1 caesarean sections during the COVID-19 pandemic. Anaesthesia. 2021. doi:10.1111/anae.15489.
COVID-19; children; MIS-C; Turkey	23-Apr-21	<a href="#">SARS-CoV-2 associated multisystem inflammatory syndrome in children (MIS-C). A single center's experience</a>	Minerva Pediatrics	Article	The authors described the clinical conditions of 20 children (median age=80.5 months, IQR 47.0-132.5 months; n=11 male) diagnosed with MIS-C and followed in a pediatric clinic between November 2020-January 2021 in Turkey. The most common symptoms at admission were fever (100%), abdominal pain (70%), myalgia (50%), and rash (50%). Lymphopenia and elevated inflammatory markers and cardiac enzymes were the main laboratory findings. Cardiac involvement (90%) consisted of	The authors described the clinical conditions of 20 children (median age=80.5 months; n=11 male) diagnosed with MIS-C and followed in a pediatric clinic between November 2020-January 2021 in Turkey. The findings indicate	Öcal Demir S, Tosun Ö, Öztürk K, et al. SARS-CoV-2 associated multisystem inflammatory syndrome in children (MIS-C). A single center's experience. Minerva Pediatr (Torino). 2021. doi:10.23736/S2724-5276.21.06327-8.

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					myopericarditis, valvulitis, left ventricular dysfunction, and coronary arteritis. 50% had gastro-intestinal involvement, with some symptoms mimicking acute appendicitis and ileus. Macular rash on the trunk and erythema on upper eyelids were noted in several patients. Empiric antibiotics and IV immunoglobulin (IVIG) were used in all patients; glucocorticoids (90%), anti-thrombotic agents (65%) and vasoactive agents (45%) were used according to severity of disease. Response to IVIG treatment was generally poor, whereas glucocorticoids had dramatic positive effect. 7 patients (35%) were monitored in ICU; none of them required intubation, mechanic ventilation, or extra-corporeal membrane oxygenation (ECMO). The median recovery time, that is, time from admission until fever subsided and inflammatory markers returned to normal, was 9.5 days. The findings indicate that glucocorticoids have a critical role in the treatment of MIS-C, and early recognition and treatment may decrease need for intensive care by speeding recovery.	that glucocorticoids have a critical role in the treatment of MIS-C, and early recognition and treatment may decrease need for intensive care by speeding recovery.	
COVID-19; pregnancy; management; mitigation strategies	23-Apr-21	<a href="#">SARS-CoV-2 infection during pregnancy and pregnancy-related conditions: concerns, challenges, management and mitigation strategies – a narrative review</a>	Journal of Infection and Public Health	Review	In this review, the authors raised concerns of infection risk, morbidity, and mortality from SARS-CoV-2 in pregnant women and discussed the pathophysiology and pathobiology of SARS-CoV-2 infection during pregnancy. Pregnant women are considered a vulnerable group due to the detrimental effects of SARS-CoV-2 infection observed in expectant mothers and their fetuses. Multi-pronged factors, including physiological anatomic changes, hormonal imbalance, immune system alterations, and increased ACE2 expression, might contribute to increased severity of COVID-19 in pregnancy. This article also discussed current evidence on vertical transmission of SARS-CoV-2 during pregnancy and breastfeeding. A number of studies have found elevated antibodies (IgM and IgG) and cytokine levels in the blood of neonates of infected mothers, suggesting in utero transmission of SARS-CoV-2. Other studies have not detected mother-to-fetus SARS-CoV-2 transmission, and have shared negative test results from breast milk, vaginal swabs, umbilical cord blood, and amniotic fluid. For uninfected mothers, the authors say breastfeeding should be allowed with precautions, including the use of a surgical mask, hand hygiene before and after contact, and cleaning of breast skin and contact surfaces. For infected mothers, the authors recommend pumping or extracting milk under strict hygiene, and feeding of the neonate by a healthy person.	In this review, the authors raised concerns of infection risk, morbidity, and mortality from SARS-CoV-2 in pregnant women and discussed the pathophysiology and pathobiology of SARS-CoV-2 infection during pregnancy. A number of studies have found elevated antibodies (IgM and IgG) and cytokine levels in the blood of neonates of infected mothers, suggesting in utero transmission of SARS-CoV-2. Other studies have not detected mother-to-fetus SARS-CoV-2 transmission, and have shared negative test results from breast milk, vaginal swabs, umbilical cord blood, and amniotic fluid.	Kumar R, Yeni CM, Utami NA, et al. SARS-CoV-2 infection during pregnancy and pregnancy-related conditions: concerns, challenges, management and mitigation strategies – a narrative review. J Infect Public Health. 2021. doi:10.1016/j.jiph.2021.04.005
school closures, lockdown, COVID-19, transmission, testing	23-Apr-21	<a href="#">Shut Down Schools, Knock Down the Virus? Causal Inference on the School Closures' Effect on</a>	medRxiv	Preprint (not peer-reviewed)	This article aimed to estimate the causal effects of school closures on the number of confirmed SARS-CoV-2 cases in Japan between March and May 2020. To do this, the authors matched Japanese municipalities based on confounders related to non-pharmaceutical interventions (stay-at-home orders, business closures, event suspensions), as well as demographic, commuting, geographic, income, education, labor, medical system, climatic,	This article aimed to estimate the causal effects of school closures on the number of confirmed SARS-CoV-2 cases in Japan between March and May 2020 by matching 847 municipalities on various	Fukumoto K, McClean CT, Nakagawa K. Shut Down Schools, Knock Down the Virus? Causal Inference on the School Closures' Effect on the Spread of COVID-19. medRxiv.

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
		<a href="#">the Spread of COVID-19</a>			and mayoral attributes. They then identified differences in SARS-CoV-2 case numbers between these matched municipalities with open vs. closed schools. The researchers included 847 municipalities in the final analysis, and found that both matched and treated (closed schools) municipalities experienced no new COVID-19 cases during the study period, despite a modest level of national SARS-CoV-2 infection in March 2020. In April and May 2020, there was no significant difference in the number of COVID-19 cases between municipalities with open or closed schools. Though the authors cannot completely rule out residual confounding or reverse causation (i.e., that schools experiencing COVID-19 case growth closed schools in response), they suggest that these results should guide policymakers in decisions regarding school openings. Specifically, independent of other non-pharmaceutical interventions, school closures do not appear to be driving the number of COVID-19 cases in Japanese municipalities, but need to be tested for generalizability in other settings and countries.	confounding variables and comparing those with open vs. closed schools. The authors found no significant difference in the number of COVID-19 cases between municipalities with open or closed schools. Though reverse causality could not be ruled out, the authors suggest that school closures do not significantly drive COVID-19 case counts in Japan, and that this may be an important consideration for policymakers.	2021; doi: 10.1101/2021.04.21.21255832
COVID-19; neonate; ultrasonography; India	22-Apr-21	<a href="#">Ultrasonography as a diagnostic aid for a neonate with gingival swelling in a COVID-19 neonatal intensive care unit</a>	Journal of Indian Society of Pedodontics and Preventive Dentistry	Case Report	This report described extraoral mandibular ultrasonography performed for the management of a congenital intraoral swelling in an infant in India during the COVID-19 pandemic [date not specified]. The patient was a 3-day-old infant whose mother was positive for SARS-CoV-2 infection. Oral examination was done in the NICU of a designated COVID-19 hospital, taking all necessary precautions. An intraoral swelling measuring 4mm in diameter was noted in the mandibular anterior region close to the midline, which upon palpation suggested the presence of a hard tissue-like structure. An extraoral mandibular ultrasonography was performed on the 10th day to confirm the presence of 4 deciduous tooth buds and 1 tooth-like structure measuring approximately 8mm with a supra-alveolar location. Therefore, extraction was planned for the 13th day. Vitamin K status was confirmed by the neonatologist before extraction in order to prevent potential hemorrhage. Using local anesthesia, an incision was made on the swelling; tissue was retracted to visualize the tooth. Extraction was performed, and gentle curettage of the socket was done. The infant tolerated the procedure well, and the extracted tooth had a crown with incomplete root development. The patient was discharged after 7 days when the mother tested negative for COVID-19. This case describes an out-of-the-box approach in confirming the diagnosis and management of a neonate with a congenital intraoral swelling during the pandemic.	This report described extraoral mandibular ultrasonography performed for the management of congenital intraoral swelling in an infant in India during the COVID-19 pandemic. Extraction was performed, which was well tolerated by the infant. This case describes an out-of-the-box approach in confirming the diagnosis and management of a neonate with congenital intraoral swelling during the pandemic.	Kakade A, Deshmukh B, Agarwal A, et al. Ultrasonography as a diagnostic aid for a neonate with gingival swelling in a COVID-19 neonatal intensive care unit. J Indian Soc Pedod Prev Dent. 2021;39(1):101-103. doi:10.4103/jisppd.jisppd_532_20.

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
Breastfeeding, infant, pediatrics, knowledge, guidelines	22-Apr-21	<a href="#">Assessment of knowledge and opinion regarding breastfeeding practices during COVID-19 pandemic among paediatricians and obstetricians in India: an online survey</a>	Sudanese Journal of Paediatrics	Original Research	The authors conducted this observational cross-sectional study in India to assess knowledge regarding breastfeeding practices among Indian pediatricians and obstetricians during the COVID-19 pandemic. An online survey was distributed from May 30-June 14, 2020 among 543 participants across India (462 (85.1%) pediatricians and 81 (14.9%) obstetricians). 72% (n = 390) responded that the COVID-19 virus cannot pass through breastmilk, while 81 (14.9%) thought it could, and 72 (13.3%) were not sure. The majority of doctors (91.7%) were in support of breastfeeding in communities where COVID-19 is prevalent. 48.1% answered that the newborn should not be placed in direct contact with a mother with SARS-CoV-2 and should not breastfeed immediately. 74.6% reported that they would advise expressed breast milk for confirmed/suspected SARS-CoV-2 mothers, while 12.2% of doctors would advise infant formula milk as an alternative to breastfeeding. 38.9% of doctors reported receiving information regarding breastfeeding during the COVID-19 pandemic from the internet, while 15% were not aware of any guidelines or recommendations during the pandemic. Based on total correct responses, only 54% of respondents were deemed to have adequate knowledge of the topic. The authors conclude that a more rigorous dissemination of information on breastfeeding practices in COVID-19 needs to be adopted in India.	In this study, the authors assessed knowledge regarding breastfeeding practices among Indian pediatricians and obstetricians during the COVID-19 pandemic. 15% of respondents were not aware of any guidelines or recommendations, and only 54% of respondents were deemed to have adequate knowledge of the topic. The authors conclude that a more rigorous dissemination of information on breastfeeding practices in COVID-19 needs to be adopted in India.	Malik S, Joshi P, Gupta PK, Sharma S. Assessment of knowledge and opinion regarding breastfeeding practices during COVID-19 pandemic among paediatricians and obstetricians in India: an online survey. <i>Sudan J Paediatr.</i> 2021;21(1):30-35. doi:10.24911/SJP.106-1598349125
COVID-19; maternal health; household; physical activity; preschool; sleep; stress	22-Apr-21	<a href="#">Household chaos, maternal stress, and maternal health behaviors in the United States during the COVID-19 outbreak</a>	Women's Health (London, England)	Original Research	This study evaluates the relationships among household chaos, maternal stress, and maternal physical activity and sleep, and identifies barriers to home organization during the COVID-19 outbreak. A survey of 1721 mothers (mean age 35.9 years, SD 4.1 years) of preschoolers (ages 3.0-5.9 years) in the United States was conducted between May 1-14, 2020 during COVID-19 stay-at-home orders and early re-opening. About half of mothers were middle income (48.2%), employed full-time prior to the outbreak (59.1%), and met the physical activity (47.7%), and sleep guideline (49.7%, 7-9 h/day). Household chaos and stress were both negatively related to physical activity and sleep (p<0.001 for both). Household chaos was positively related to stress (p=0.001). Stress partially mediated the relationship between household chaos and physical activity and sleep (p<0.001 for both). Virus concerns, occupational changes (i.e., teleworking), and lack of childcare were barriers to home organization. The authors conclude that during the COVID-19 outbreak, many mothers had poor sleep and physical activity, which was associated with household chaos and stress. Opportunities to promote order at the individual, household, and community level may result in beneficial mental and physical health in mothers of young children during the COVID-19 outbreak and beyond.	This study evaluates the relationships among household chaos, maternal stress, and maternal physical activity and sleep, and identifies barriers to home organization during the COVID-19 outbreak. The authors conclude that opportunities to promote order at the individual, household, and community level may result in beneficial mental and physical health in mothers of young children during the COVID-19 outbreak and beyond.	Kracht CL, Katzmarzyk PT, Staiano AE. Household chaos, maternal stress, and maternal health behaviors in the United States during the COVID-19 outbreak. <i>Womens Health (Lond).</i> 2021;17:17455065211010655. doi:10.1177/17455065211010655

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
COVID-19, SARS-CoV-2, Pregnancy, Maternal Outcomes, Neonatal Outcomes, Neonates	22-Apr-21	<a href="#">Maternal and Neonatal Morbidity and Mortality Among Pregnant Women With and Without COVID-19 Infection: The INTERCOVID Multinational Cohort Study</a>	Journal of the American Medical Association (JAMA) Pediatrics	Original Research	The authors of this study aimed to evaluate the risks associated with COVID-19 in pregnancy on maternal and neonatal outcomes compared with not-infected, concomitant pregnant individuals. The study period was from March to October 2020, involving 43 institutions in 18 countries. A total of 706 pregnant women with COVID-19 diagnosis and 1424 pregnant women without COVID-19 diagnosis were enrolled, all with broadly similar demographic characteristics (mean [SD] age, 30.2 [6.1] years). Women with a diagnosis of COVID-19 were at higher risk for preeclampsia/eclampsia (RR: 1.76, 95% CI: 1.27-2.43), severe infections (RR: 3.38, 95% CI: 1.63-7.01), ICU admission (RR: 5.04, 95% CI: 3.13-8.10), maternal mortality (RR: 22.3, 95% CI: 2.88-172), preterm birth (RR: 1.59, 95% CI: 1.30-1.94), severe neonatal morbidity index (RR, 2.66; 95% CI, 1.69-4.18), and severe perinatal morbidity and mortality index (RR, 2.14; 95% CI, 1.66-2.75). Fever and shortness of breath for any duration were associated with increased risk of severe maternal complications (RR, 2.56; 95% CI, 1.92-3.40) and neonatal complications (RR, 4.97; 95% CI, 2.11-11.69). Asymptomatic women diagnosed with COVID-19 remained at higher risk only for maternal morbidity (RR: 1.24, 95% CI: 1.00-1.54) and preeclampsia (RR: 1.63, 95% CI: 1.01-2.63). Among women who tested positive (98.1% by real-time polymerase chain reaction), 54 (13%) of their neonates tested positive. Cesarean delivery (RR, 2.15; 95% CI, 1.18-3.91) but not breastfeeding (RR, 1.10; 95% CI, 0.66-1.85) was associated with increased risk for neonatal test positivity. These findings should alert pregnant individuals and clinicians to implement all the recommended COVID-19 preventive measures strictly.	The authors of this study aimed to evaluate the risks associated with COVID-19 in pregnancy on maternal and neonatal outcomes compared with not-infected, concomitant pregnant individuals. The study results showed that COVID-19 in pregnancy was associated with consistent and substantial increases in severe maternal morbidity and mortality and neonatal complications when pregnant women with and without COVID-19 diagnosis were compared. These findings should alert pregnant individuals and clinicians to implement all the recommended COVID-19 preventive measures strictly.	Villar J, Ariff S, Gunier RB, et al. Maternal and Neonatal Morbidity and Mortality Among Pregnant Women With and Without COVID-19 Infection: The INTERCOVID Multinational Cohort Study [published online ahead of print, 2021 Apr 22]. JAMA Pediatr. 2021;10.1001/jamapediatrics.2021.1050. doi:10.1001/jamapediatrics.2021.1050
COVID-19; Children; Epidemiological characteristics; Outpatient visits; Respiratory tract infection	22-Apr-21	<a href="#">Epidemiological and virological characteristics of respiratory tract infections in children during COVID-19 outbreak</a>	BioMed Central (BMC) Pediatrics	Original Research	This study investigates the impact of protective measures and isolation on respiratory tract infections in children during the COVID-19 outbreak in China. The authors analyzed outpatient visits and respiratory infection visits, and tests of respiratory viruses (adenovirus (ADV), influenza A (FluA), influenza B (FluB) and respiratory syncytial virus (RSV)) from electronic records in Children's Hospital, Zhejiang China during the COVID-19 outbreak (January-April 2020), compared with those in 2018 and 2019 during the same periods (age range birth – 18 years). While outpatient visits in January 2020 were comparable with those in 2018 and 2019, they decreased by 59.9% and 57.4%, respectively during the period of February-April 2020, as compared to the same periods in 2018 and 2019. The total number of respiratory tract infections from January - April 2020 decreased by 65.7% and 59.0%, respectively compared with the same periods in 2018 and 2019. The proportion of respiratory tract infections during the outbreak also dropped compared with the same periods in 2018 and 2019 (P<0.001 for both). Significantly decreased numbers of completed tests for respiratory viruses and positive cases of ADV,	This study investigates the impact of protective measures and isolation on respiratory tract infections in children during the COVID-19 outbreak in China. The authors conclude adequate protective measures and isolation in children may help to prevent respiratory virus infections in children and significantly decrease outpatient visits.	Zhu Y, Li W, Yang B, et al. Epidemiological and virological characteristics of respiratory tract infections in children during COVID-19 outbreak. <i>BMC Pediatr</i> . 2021;21(1):195. Published 2021 Apr 22. doi:10.1186/s12887-021-02654-8

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					FluA, FluB, and RSV were reported during February-April 2020 [see Fig.2; raw data unavailable]. The authors conclude adequate protective measures and isolation in children may help to prevent respiratory virus infections in children and significantly decrease outpatient visits.		
COVID-19; children; sleep duration; lockdown	22-Apr-21	<a href="#">Effects of the COVID-19 lockdown on sleep duration in children and adolescents: A survey across different continents</a>	Pediatric Pulmonology	Original Research	The authors conducted a survey to assess the sleep habits of children in various countries before and during the COVID-19 pandemic. A total of 845 questionnaires completed from 1 May-10 June 2020 were analyzed (45.8% female; age range=3-17 yrs, 52.5% between ages 6-13 yrs). During the pandemic, 23.1% of preschoolers, 46.2% of school-age children, and 89.8% of adolescents were going to bed after 10 p.m. on weekdays compared to 7.1%, 9.4%, and 57.1%, respectively, before the pandemic, with these proportions being higher on weekends. Likewise, 42.5% of preschoolers, 61.3% of school-age children, and 81.2% of adolescents were waking after 8 a.m. on weekdays (11.6%, 4.9%, and 10.3% before the pandemic), with these proportions being greater on weekends. Sleep duration did not change in 43% of participants on weekdays and in 46.2% on weekends. The 14-17-year age group had fourfold increased odds for longer sleep duration on weekdays ( $p<0.01$ ), and children aged 6-13 years old had twofold increased odds for longer sleep duration on weekends, relative to the 3-5-year age group ( $p=0.01$ ). The findings indicate that, although lockdown was associated with later bedtime and wake time, this shift did not alter sleep duration in >40% of children. Yet, compared to preschoolers, high school-aged children were more likely to sleep more on weekdays, and primary school children on weekends.	The authors conducted a survey to assess the sleep habits of children residing in various countries before and during the COVID-19 pandemic. The findings indicate that, although lockdown was associated with later bedtime and wake time, this shift did not alter sleep duration in >40% of children. Yet, compared to preschoolers, high school-aged children were more likely to sleep more on weekdays, and primary school children on weekends.	Kaditis AG, Ohler A, Gileles-Hillel A, et al. Effects of the COVID-19 lockdown on sleep duration in children and adolescents: A survey across different continents. <i>Pediatr Pulmonol.</i> 2021. doi:10.1002/ppul.25367.
COVID-19; pregnancy; neonate; vertical transmission	22-Apr-21	<a href="#">Vertical transmission of Severe Acute Respiratory Syndrome Coronavirus 2: A scoping review</a>	PLoS One	Review	This review summarized emerging evidence on the vertical transmission of SARS-CoV-2. The authors conducted a systematic search in PubMed, CINAHL, Web of Science, SCOPUS, and CENTRAL. Likewise, a search for preprint publications was conducted using medRxiv and Research Square. Studies published between December 2019-September 2020 that addressed vertical transmission of SARS-CoV-2 in pregnant women infected by SARS-CoV-2 in any setting (community, hospital, or home) and in any country or context were considered for inclusion. 51 studies reporting 336 neonates screened for COVID-19 were identified. Only 15 (4.4%) of these were positive for SARS-CoV-2 via throat swab RT-PCR. All neonates with positive throat swab RT-PCR were delivered by C-section. Among neonates with positive throat swabs, only 5 (33.3%) had concomitant “intra-uterine tissue” tested (placenta, amniotic fluid, and/or cord blood), of which only one amniotic fluid sample was positive for RT-PCR. 5 neonates had elevated IgG and IgM, but without intra-uterine tissue tested. 4 PCR-positive neonates had chest imaging suggestive of COVID-19 pneumonia. The findings suggest that currently there is not	This review summarized emerging evidence on the vertical transmission of SARS-CoV-2. The findings suggest that currently there is not enough evidence on vertical virologic transmission of COVID-19 infection during the third trimester of pregnancy. Additionally, there is no evidence to support prophylactic C-sections, abstaining from breastfeeding, nor mother and infant separation.	Tolu LB, Ezeh A, Feyissa GT. Vertical transmission of Severe Acute Respiratory Syndrome Coronavirus 2: A scoping review. <i>PLoS One.</i> 2021;16(4):e0250196. doi:10.1371/journal.pone.0250196.

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					enough evidence on vertical virologic transmission of COVID-19 during the third trimester of pregnancy. Additionally, there is no evidence to support prophylactic C-sections, abstaining from breast-feeding, nor mother/infant separation.		
Pregnancy; diabetes; telemedicine; Medicaid; United States	22-Apr-21	<a href="#">Evaluation of a Telemedicine Program Managing High-Risk Pregnant Women with Pre-Existing Diabetes in Arkansas's Medicaid Program [Free Access to Abstract Only]</a>	Seminars in Perinatology	Original Research	This study evaluated the effects of the telemedicine program, High-Risk Pregnancy Program at the University of Arkansas for Medical Sciences (UAMS) in the United States, on health services utilization and medical expenditures among pregnant women with pre-existing diabetes and their neonates. The study sample was selected from the Arkansas Medicaid claims linked to infant birth/death certificates and UAMS telemedicine records from 2013-2016. Propensity score matching based on participants' characteristics was used to create 3 groups: UAMS telemedicine care (n=172; mean age=30.65 ± 6.82 years), UAMS in-person care (n=421; mean age=29.41 ± 6.37 years), and non-UAMS prenatal care (n=1,016; mean age=26.76 ± 5.77 years). The UAMS telemedicine group had fewer inpatient admissions (1.18 vs. 1.31; 95% CI: -0.27, 0.00, p<0.05), lower insulin use rates (41.86% vs. 59.88%; 95% CI: -29.00%, -7.05%, p<0.01) and lower maternal care expenditures (\$7,846 vs. \$10,644; 95% CI: -\$4,089, -\$1,507, p<0.01) compared with the UAMS in-person care group. Women receiving UAMS telemedicine had more prenatal care visits (10.45 vs. 8.57; 95% CI: -2.96, -0.81, p<0.01), higher insulin use rates (41.86% vs. 26.74%; 95% CI: 4.63%, 25.60%, p<0.01) and similar maternal care expenditures (\$7,846 vs. \$7,051), compared with those receiving non-UAMS in-person care. Cesarean section, severe maternal morbidity, and infant mortality rates were similar across the 3 groups. In conclusion, UAMS telemedicine was associated with improved utilization of prenatal care among pregnant women with pre-existing diabetes, which may have implications for use during the COVID-19 pandemic.	This study evaluated the effects of the telemedicine program, High-Risk Pregnancy Program at the University of Arkansas for Medical Sciences (UAMS) in the United States, on health services utilization and medical expenditures among pregnant women with pre-existing diabetes and their neonates. The UAMS telemedicine group had fewer inpatient admissions, lower insulin use rates, and lower maternal care expenditures than the UAMS in-person care group. In conclusion, UAMS telemedicine was associated with improved utilization of prenatal care among pregnant women with pre-existing diabetes, which may have implications for use during the COVID-19 pandemic.	Sung Y, Zhang D, Eswaran H, et al. Evaluation of a Telemedicine Program Managing High-Risk Pregnant Women with Pre-Existing Diabetes in Arkansas's Medicaid Program. <i>Semin Perinatol.</i> 2021;151421. doi:10.1016/j.semperi.2021.151421.
pregnancy; newborns; COVID-19	22-Apr-21	<a href="#">COVID-19 in Pregnant Women and Their Newborn Infants</a>	Journal of the American Medical Association (JAMA) Pediatrics	Editorial	In this editorial, the author discusses the unique risks that SARS-CoV-2 and COVID-19 pose to pregnant women and their infants. They elaborate on the physiological changes associated with pregnancy, such as increased risk of thrombolytic events and decreased lung capacity, which make pregnant women more vulnerable to COVID-19. In particular, the author discusses the INTERCOVID multi-cohort study results published by Villar, et al., and emphasizes the magnitude of the risk of COVID-19 in pregnant women and their newborns, as these data can drive vaccination prioritization, public health guidelines, and national and international policy. The results of the INTERCOVID study showed that pregnant women had higher risk of preeclampsia, eclampsia, severe infections, admission to ICU, preterm birth, and in some cases, maternal death. The relative risk for severe neonatal morbidity index and severe perinatal morbidity and mortality index were 2.66 and 2.14, respectively, in infected pregnant women,	The author discusses the risks of severe COVID-19 in pregnant women and their newborns, as elaborated in the recently published results of the INTERCOVID multi-cohort study. She outlines the need to understand the relative and absolute risks of severe COVID-19, physiological changes underlying increased risks in pregnant women, and targeted prevention strategies to protect the health of this vulnerable population.	Healy CM. COVID-19 in Pregnant Women and Their Newborn Infants [published online ahead of print, 2021 Apr 22]. <i>JAMA Pediatr.</i> 2021. doi:10.1001/jamapediatrics.2021.1046

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					compared with those who were not infected. Despite these high relative risks, the author notes that the absolute risk of severe COVID-19 for pregnant women is low, as acknowledged by the American College of Obstetricians and Gynecologists. Overall, prevention strategies are needed to mitigate health risks of severe COVID-19 in pregnant women and newborns, including non-pharmaceutical measures such as handwashing, mask-wearing, and social distancing, and also vaccination against SARS-CoV-2.		
childhood development; psychology; COVID-19 pandemic	22-Apr-21	<a href="#">SARS pandemic exposure impaired early childhood development in China</a>	Nature Scientific Reports	Original Research	This retrospective study analyzed the China Family Panel Studies to examine the epidemiological associations between the 2003 SARS pandemic and infant and child health indicators, including developmental milestones, body weight, height, birthweight, and preterm birth in 14,647 children. These results were then extended to make recommendations for studying child development in the setting of the COVID-19 pandemic. The study found that experiencing the SARS pandemic during childhood was associated with delayed milestones, with hazard ratios of 3.17 (95% CI: 2.71, 3.70), 3.98 (95% CI: 3.50, 4.53), 4.96 (95% CI: 4.48, 5.49), and 5.57 (95% CI: 5.00, 6.20) for delays in walking independently, saying a complete sentence, counting 0–10, and undressing him/herself for urination, respectively. Associations between the pandemic and health indicators, especially delayed developmental milestones and reduced body weight, were strongest in SARS hotspots. These findings suggest that social stressors associated with novel infectious disease outbreaks, such as in the COVID-19 pandemic, can impair child development significantly. As such, the authors state that studies and interventions to characterize and address child health effects should be immediately initiated, and a cohort focusing on child development during the COVID-19 pandemic should be urgently planned.	This retrospective study identified delayed developmental milestones and reduced bodyweight in Chinese children during the SARS pandemic in 2003, due to social stressors associated with novel infectious disease outbreak. The authors state that studies and interventions to characterize and address child health effects of the COVID-19 pandemic should be immediately initiated, and a cohort focusing on child development during the COVID-19 pandemic should be urgently planned.	Fan Y, Wang H, Wu Q, et al. SARS pandemic exposure impaired early childhood development in China. <i>Sci Rep.</i> 2021;11(1):8694. Published 2021 Apr 22. doi:10.1038/s41598-021-87875-8
screening, SARS-CoV-2, pregnancy	22-Apr-21	<a href="#">Prevalence, clinical features, and outcomes of SARS-CoV-2 infection in pregnant women with or without mild/moderate symptoms: Results from universal screening in a tertiary care center in Mexico City, Mexico</a>	PLoS One	Original Research	This retrospective case-control study described features and outcomes of pregnant women with and without SARS-CoV-2 infection after universal screening was established in a large tertiary care center in Mexico City. The study included pregnant women and neonates with a SARS-CoV-2 RT-PCR test result between April 22 and May 25, 2020. Among 240 pregnant women, 29% (n=70) were positive for SARS-CoV-2; 86% (60/70) were asymptomatic, 9 had mild symptoms, and 1 had moderate disease. No baseline features or risk factors associated with severity of infection, including maternal age, BMI, and pre-existing conditions, were different between SARS-CoV-2-positive and -negative women. The median gestational age at admission for both groups was 38 weeks, and all women were discharged to home without complications. The proportion of pre-eclampsia was higher in SARS-CoV-2-positive than -negative women (18% [95% CI: 10%-29%] vs. 9% [95% CI: 5%-14%], p<0.05). Within 24 hours of birth, 9	This retrospective case-control study identified features and outcomes of pregnant women with and without SARS-CoV-2 infection in a tertiary care center in Mexico. Though baseline risk factors associated with infection severity were not different between SARS-CoV-2-positive and -negative women, positive women had a higher proportion of pre-eclampsia, and had a higher proportion of neonates admitted to the neonatal ICU, with a longer length of	Cardona-Pérez JA, Villegas-Mota I, Helguera-Repetto AC, et al. Prevalence, clinical features, and outcomes of SARS-CoV-2 infection in pregnant women with or without mild/moderate symptoms: Results from universal screening in a tertiary care center in Mexico City, Mexico. <i>PLoS One.</i> 2021;16(4):e0249584. Published 2021 Apr 22. doi:10.1371/journal.pone.0249584

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					infants of positive mothers tested positive for SARS-CoV-2 infection. A larger number of SARS-CoV-2 infected neonates were admitted to the neonatal ICU, compared to negative neonates (44% vs. 22%, p<0.05), and infected neonates had a longer length of hospitalization (mean 2 days [IQR 2-18] vs. mean 2 days [IQR 2-3], p<0.001), both of which are potential proxies for illness severity. As such, this report highlights the importance of COVID-19 detection at delivery in pregnant women living in areas with high transmission of SARS-CoV-2.	hospitalization. Detecting SARS-CoV-2 infection at delivery is therefore important in promoting the health of women and neonates.	
Abortion, telehealth, access, medication abortion	21-Apr-21	<a href="#">Changes to medication abortion clinical practices in response to the COVID-19 pandemic</a>	Contraception	Original Research	In this longitudinal study, the authors assessed how clinicians adapted their medication abortion practices in response to the COVID-19 pandemic. 3 online surveys were conducted between April-December, 2020 among 55 abortion service sites across the USA and Canada. The total number of abortion encounters reported by the sites remained consistent throughout the study period, though medication abortion encounters increased (median of 25 per site (range 0-294) reported pre-pandemic and 32 per site (range 1-767) by the end of October 2020) while first-trimester aspiration abortion encounters decreased (median of 37 per site (range 0-526) pre-pandemic to 35 per site (range 2-508) at the end of October 2020). In response to the COVID-19 pandemic, sites reduced the number of in-person visits associated with medication abortion. In February 2020, 39/55 sites (71%) required 2 or more patient visits for a medication abortion. By April 2020, 19/55 sites (35%) reported reducing the total number of in-person visits associated with a medication abortion. As of October 2020, 37 sites indicated newly adopting a practice of offering medication abortion follow-up with no in-person visits. The authors conclude that abortion sites successfully adopted protocols that reduced in-person visits and sustaining these changes after the public health crisis may increase patient access to abortion.	In this study, the authors assessed adaptations to medical abortion practices in response to the COVID-19 pandemic in the USA and Canada. During the pandemic, medication abortion encounters increased, while first-trimester aspiration abortion encounters decreased. Sites also reduced in-person visits associated with medication abortions. The authors conclude that abortion sites successfully adopted protocols that reduced in-person visits and sustaining these changes after the public health crisis may increase patient access to abortion.	Tschann M, Ly ES, Hilliard S, Lange HLH. Changes to medication abortion clinical practices in response to the COVID-19 pandemic. <i>Contraception</i> . 2021;S0010-7824(21)00115-3. doi:10.1016/j.contraception.2021.04.010
COVID-19; pregnancy; neonatal outcomes; placenta; vertical transmission; treatment; vaccine	21-Apr-21	<a href="#">COVID-19 and Pregnancy: Risk, Symptoms, Diagnosis, and Treatment</a>	SN Comprehensive Clinical Medicine	Review	The authors described the clinical manifestations of SARS-CoV-2 infection in the pregnant population and reviewed the implications and sequelae of infection throughout pregnancy and outcomes of live births. Findings regarding maternal morbidity included an increased risk of acquiring severe SARS-Co-2 infection, requiring a higher level of inpatient hospital care, and an increased risk of preterm labor and cesarean delivery. Neonatal SARS-CoV-2 vertical transmission was shown to have conflicting data as there was a presence of transmission in certain retrospective studies and absence in others. There was also no evidence of teratogenicity from maternal SARS-CoV-2 infection. The authors also summarized current knowledge about COVID-19 treatments and vaccination in pregnancy. Of note, remdesivir is currently classified as a pregnancy category B2 pharmaceutical drug - epitomizing the limited data of remdesivir in the pregnant cohort. Furthermore, there is limited data regarding the fetal effects of remdesivir from	The authors described the clinical manifestations of SARS-CoV-2 infection in the pregnant population, reviewed the maternal and neonatal outcomes, and discussed current knowledge about COVID-19 treatments and vaccination in pregnancy. Data on neonatal SARS-CoV-2 vertical transmission was conflicting. The authors concluded that due to the unique physiologic state of pregnancy and partly due to unknown factors, pregnant	Hapshy V, Aziz D, Kahar P, et al. COVID-19 and Pregnancy: Risk, Symptoms, Diagnosis, and Treatment. <i>SN Compr Clin Med</i> . 2021:1-7. doi:10.1007/s42399-021-00915-2.

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					its current usage in the treatment of COVID-19; therefore, more clinical studies are needed. The American College of Obstetricians and Gynecologists (ACOG) recommends that COVID-19 vaccines should not be withheld from pregnant individuals who meet the criteria for vaccination based on the Advisory Committee on Immunization Practices (ACIP)-recommended priority groups. Physicians must use their clinical judgment when evaluating the need for hospitalization and treatment in their pregnant patients since many symptoms of COVID-19 mimic those associated with normal physiologic changes in pregnancy. In conclusion, due to the unique physiologic state of pregnancy and partly due to unknown factors, pregnant patients are at increased risk for adverse outcomes of COVID-19 and must be classified as a high-risk population.	patients are at increased risk for adverse outcomes of COVID-19 and must be classified as a high-risk population.	
SARS-CoV-2 infection; infant; <i>M. tuberculosis</i> ; failure to thrive; preventive pediatrics	21-Apr-21	<a href="#">Fatal SARS-CoV-2 and Mycobacterium tuberculosis coinfection in an infant: insights from Botswana</a>  <a href="#">[Free access to abstract only]</a>	British Medical Journal (BMJ) Case Reports	Case Report	In this case presentation, the authors describe a 3-month-old male, presenting with fever, respiratory distress and failure to thrive in a medical facility in Botswana. The patient was a full-term male born via normal spontaneous vaginal delivery; however, his mother experienced intermittent fever, cough and weight loss during her third trimester of pregnancy. The patient received his normal 2-month childhood vaccines and was exclusively breastfed; however, at 3-months-old, he had not gained weight appropriately. On presentation to care, the infant displayed respiratory distress, tachypnea and hypoxemia. Chest imaging revealed significant bilateral infiltrates, perihilar opacities, left sided consolidation and bilateral hyperinflation. In both the patient and his mother, nucleic acid amplification revealed rifampin-sensitive <i>M. tuberculosis</i> (TB) and naso- and oropharyngeal samples were positive for SARS-CoV-2 infection on real-time PCR. On admission, the patient received supplemental oxygen and empiric antibiotics; on day 4 of admission, he began rifampicin, isoniazid, pyrazinamide and ethambutol. On day 5 of hospitalization, the patient was febrile and tachycardia. He later experienced cardiac arrest and died. Autopsy revealed disseminated TB, necrotizing granulomatous lesions in the lungs, and diffuse platelet-fibrin microthrombi in the lungs and myocardium. The authors suggest that this case involving coinfection with <i>M. tuberculosis</i> and SARS-CoV-2 infection in an infant, highlights both the need for further study regarding potential pathophysiologic synergy, and the need for greater public health efforts in tuberculosis-endemic areas.	The authors described a 3-month-old male, presenting with fever, respiratory distress and failure to thrive in a medical facility in Botswana. The authors suggest that this case involving co-infection with <i>M. tuberculosis</i> and SARS-CoV-2 infection in an infant, highlights both the need for further study regarding potential pathophysiologic synergy, and the need for greater public health efforts in tuberculosis-endemic areas.	Mulale UK, Kashamba T, Stryko J, Kyokunda LT. Fatal SARS-CoV-2 and Mycobacterium tuberculosis coinfection in an infant: insights from Botswana. <i>BMJ Case Rep.</i> 2021;14(4):e239701. Published 2021 Apr 21. doi:10.1136/bcr-2020-239701

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COVID-19, SARS-CoV-2, Pregnancy, Pregnant, mRNA COVID-19 vaccine, vaccinations	21-Apr-21	<a href="#">Preliminary Findings of mRNA Covid-19 Vaccine Safety in Pregnant Persons</a>	New England Journal of Medicine (NEJM)	Original Article	The authors report the preliminary findings of their study on the safety of mRNA COVID-19 vaccines in pregnant persons. From December 14, 2020, to February 28, 2021, they used data from the "v-safe after vaccination health checker" surveillance system, the v-safe pregnancy registry, and the Vaccine Adverse Event Reporting System (VAERS) to characterize the initial safety of mRNA Covid-19 vaccines in pregnant persons. A total of 35,691 v-safe participants 16 to 54 years of age identified as pregnant. Injection-site pain was reported more frequently among pregnant persons than among nonpregnant women, whereas headache, myalgia, chills, and fever were reported less frequently. Among 3958 participants enrolled in the v-safe pregnancy registry, 827 had a completed pregnancy, of which 115 (13.9%) resulted in a pregnancy loss and 712 (86.1%) resulted in a live birth (mostly among participants with vaccination in the third trimester). Adverse neonatal outcomes included preterm birth (in 9.4%) and small size for gestation age (in 3.2%); no neonatal deaths were reported. Although not directly comparable, calculated proportions of adverse pregnancy and neonatal outcomes in persons vaccinated against COVID-19 who had a completed pregnancy were similar to incidences reported in studies involving pregnant women conducted before the COVID-19 pandemic. Among 221 pregnancy-related adverse events reported to the VAERS, the most frequently reported event was spontaneous abortion (46 cases). In conclusion, preliminary findings did not show obvious safety signals among pregnant persons who received mRNA COVID-19 vaccines. However, more longitudinal follow-up, including follow-up of large numbers of women vaccinated earlier in pregnancy, is necessary to inform maternal, pregnancy, and infant outcomes.	The authors report the preliminary findings of their study on the safety of mRNA COVID-19 vaccines in pregnant persons. Early data from the v-safe surveillance system, the v-safe pregnancy registry, and the Vaccine Adverse Event Reporting System do not indicate any obvious safety signals with respect to pregnancy or neonatal outcomes associated with COVID-19 vaccination in the third trimester of pregnancy. However, more longitudinal follow-up, including follow-up of large numbers of women vaccinated earlier in pregnancy, is necessary to inform maternal, pregnancy, and infant outcomes.	Shimabukuro TT, Kim SY, Myers TR, et al. Preliminary Findings of mRNA Covid-19 Vaccine Safety in Pregnant Persons [published online, 2021 Apr 21]. N Engl J Med. 2021;10.1056/NEJMoa2104983. doi:10.1056/NEJMoa2104983
AIDS; COVID-19; HIV protease-inhibitors; detrimental; infant sex; neonate; placenta; race; receptor; renin-angiotensin system.	21-Apr-21	<a href="#">ACE2, TMPRSS2 and L-SIGN expression in placenta from HIV-positive pregnancies exposed to antiretroviral therapy- implications for SARS-CoV-2 placental infection</a>	Journal of Infectious Diseases	Original Research	The authors compared the mRNA levels of SARS-CoV-2 cell-entry mediators ACE2, TMPRSS2, and L-SIGN (an alternative entry receptor) by qPCR in 105 placentae: 45 from pregnant women with HIV (WHIV) exposed to protease inhibitor (PI)-based ART, 17 from WHIV on non-PI-based ART, and 43 from HIV-uninfected women in Canada, between May 2010 and April 2019. Compared to the HIV-control group, ACE2 levels were significantly lower in placenta exposed to PI-based ART (median (IQR of loge- transformed values): -0.56 (-1.03, -0.11) for PI-based ART vs 0.12(-0.28, -0.50) for control, p<0.01). ACE2 levels were similar between the control group and the non-PI-based ART group. The L-SIGN expression level was significantly higher in placenta exposed to PI-based ART compared to those with non-PI-based ART and compared to controls (median (IQR of loge- transformed values): 0.78 (0.08, -1.37) for PI-based ART vs. -0.30 (-1.22, -0.78) for non-PI-based ART (p<0.01) and vs 0.0 (-0.68, -0.78) for control (p<0.01). The TMPRSS2 expression was similar between the groups. Lower ACE2	The authors compared placental mRNA levels of SARS-CoV-2 cell-entry mediators ACE2, TMPRSS2, and L-SIGN between 45 pregnant women with HIV (WHIV) exposed to protease inhibitor (PI)-based ART, 17 WHIV on non-PI-based ART, and 43 HIV-uninfected women in Canada between May 2010 and April 2019. ACE2 levels were lower, while L-SIGN levels were higher in placenta from WHIV on PI-based ART than those on non-PI-based ART and HIV-uninfected women. These data	Kala S, Meteleva K, Serghides L. ACE2, TMPRSS2 and L-SIGN expression in placenta from HIV-positive pregnancies exposed to antiretroviral therapy-implications for SARS-CoV-2 placental infection. J Infect Dis. 2021 Apr 21;jiab166. doi: 10.1093/infdis/jiab166. Epub ahead of print. PMID: 33880537.

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					expression and higher L-SIGN expression in placentae from Black women were observed compared to White women (median (IQR of loge- transformed values): for ACE2 -0.26 for Blacks vs. 0.24 for Whites, p<0.05; for L-SIGN 0.61 for Blacks vs. -0.13 for Whites, p<0.01). This effect may potentially contribute to altered susceptibility to COVID-19 in these women, either favorably by reduced viral entry or detrimentally by loss of ACE2 protection against hyperinflammation. These data may better inform clinical considerations regarding risk stratification and prevention approaches for SARS-CoV-2-affected pregnancies exposed to HIV and ART.	may better inform clinical considerations regarding risk stratification and prevention approaches for SARS-CoV-2-affected pregnancies exposed to HIV and ART.	
ACE2; Placental expression; SARS-CoV-2; TMPRSS2.	21-Apr-21	<a href="#">SARS-CoV-2 ACE2 and TMPRSS2 Receptor Protein Expression Patterns Throughout Gestation</a>	Journal of Infectious Diseases	Original Research	To better understand the risk of early gestational vertical SARS-CoV-2 transmission, the authors examined placental receptor expression patterns from early 1st to mid-3rd trimester. They examined 12 cases (gestational age range: 5 weeks 3 days to 36 weeks [maternal ages not given]) from pre-pandemic women or SARS-CoV-2-negative women who underwent a therapeutic pregnancy termination or preterm delivery between 1 Jan 2019 and 1 December 2020 in Massachusetts, United States. The authors reviewed placental/villous tissue hematoxylin and eosin slides, pathology reports, and Immunohistochemistry studies. ACE2 expression was uniformly strong in the villous syncytiotrophoblast (ST), cytotrophoblast, and extra-villous trophoblast. The authors observed a distinct ACE2 expression polarity in the ST favoring basal over apical expression (10/12 cases), but occasionally observed a primarily circumferential membranous expression (3/12 cases). TMPRSS2 expression was usually not detected in villous tissues, but occasionally weakly detected in the ST (n=2) or placental endothelium (n=2). Overall, ACE2 expression was polarized and biased to the ST stromal (basal) side, offering some barrier to placental cellular SARS-CoV-2 infection. However, ACE2 was more frequently expressed circumferentially in the ST in early gestation. Relatively higher ACE2 expression on the apical ST surface suggests a weakness of the ST barrier function, which could result in higher placental infection rates and vertical SARS-CoV-2 transmission in early pregnancy exposures.	The authors investigated the developmental protein expression patterns of ACE2 and TMPRSS2 in placentas throughout gestation in Massachusetts, United States from 1 Jan 2019 to 1 December 2020. ACE2 expression varied during gestation, with circumferential syncytiotrophoblast expression more common in early gestation, and polarized expression more common in later gestation. Pregnancies at earlier gestational ages may be more vulnerable to infection than at later gestational ages.	Roberts DJ, Bebell LM, Edlow AG. SARS-CoV-2 ACE2 and TMPRSS2 Receptor Protein Expression Patterns Throughout Gestation. J Infect Dis. 2021 Apr 21. doi: 10.1093/infdis/jiab164. PMID: 33880519.
chest ultrasound, neonates, SARS-CoV-2, COVID-19	21-Apr-21	<a href="#">Usefulness of chest ultrasound in a neonatal infection due to SARS-CoV-2</a>	Anales de Pediatría	Letter to Editor	The authors present a case of horizontal transmission of SARS-CoV-2 in a neonate in Spain and highlight the importance of the chest ultrasound (US) for early abnormalities detection. A male neonate aged 10 days with fever (rectal temperature of 38.5C) and no other symptoms was admitted to the hospital for evaluation [date not specified]. The relevant history included potential household transmission where the neonate's parents and paternal grandfather had experienced cold symptoms, including cough and nasal discharge without fever. On admission, the neonate had a heart rate (HR) of 144 bpm, a respiratory rate (RR) of 42 bpm, and oxygen saturation of 100%. Laboratory findings were normal	The authors present a case of horizontal transmission of SARS-CoV-2 in a neonate in Spain. Chest ultrasound (US) successfully detected lung abnormalities before the patient developed apnea, highlighting the importance of using chest US to detect early abnormalities that radiography cannot reveal. Further	Capliure AP, Almela MP, Albert AN, et al. Usefulness of chest ultrasound in a neonatal infection due to SARS-CoV-2, Anales de Pediatría (English Edition), 2021. ISSN 2341-2879, <a href="https://doi.org/10.1016/j.anpede.2021.04.001">https://doi.org/10.1016/j.anpede.2021.04.001</a> . ( <a href="https://www.sciencedirect.co">https://www.sciencedirect.co</a>

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					<p>except for the positive RT-PCR for SARS-CoV-2. Both parents later tested positive for SARS-CoV-2. At 24 hours from admission, the neonate's RR increased to 60 bpm with HR of 160-180 bpm, prompting chest X-ray and ECG, which were unremarkable. A chest US revealed pleural thickening, converging B-lines in the posterior chest, and subpleural consolidation at the lung base level of the right hemithorax. The patient later developed apnea, and capillary blood gas analysis revealed mild CO2 retention (pH 7.38, pCO2 48.4, bicarbonate 26.4, lactate 1.2), leading to treatment initiation with caffeine and supplemental O2 with a peak FiO2 of 0.3. The patient recovered without complications and was discharged on day 9. This case highlights the importance of chest US to detect early abnormalities that are not often detected with chest X-ray. Further research is required to establish the lung ultrasound features found in patients with COVID-19 and the course of the disease in the neonatal population.</p>	<p>research is required to establish the lung ultrasound features found in patients with COVID-19 and the course of the disease in the neonatal population.</p>	<p>m/science/article/pii/S234128792100048X)</p>
COVID-19; nutrition; public health	21-Apr-21	<a href="#">Impact of COVID-19 on household food insecurity and interlinkages with child feeding practices and coping strategies in Uttar Pradesh, India: a longitudinal community-based study</a>	British Medical Journal (BMJ) Open	Original Research	<p>The COVID-19 pandemic has profound negative impacts on people's lives, but little is known on its effect on household food insecurity (HFI) in poor resource settings. This longitudinal study conducted December 2019 (in-person) and August 2020 (by phone) across 2 districts in Uttar Pradesh, India assessed changes in HFI during the pandemic among 569 mothers with children &lt;2 years and examined the interlinkages between HFI with child feeding practices and coping strategies. Mothers had an average age of 25.5 years [range not reported], with infants ranging from 0-5.9 months old (average age 3 months). HFI increased sharply from 21% in December 2019 to 80% in August 2020, with 62% of households changing from food secure to insecure over this period. After controlling for child age, sex, breastfeeding status, mother's age, education, caste, religion, number of children &lt;5 years, and household income, children in newly or consistently food-insecure households were less likely to consume a diverse diet (adjusted (A)OR 0.57, 95% CI 0.34-0.95 and AOR 0.51, 95% CI 0.23-1.12, respectively) compared with those in food-secure households. Households with consistent food insecurity were more likely to engage in coping strategies such as reducing other essential non-food expenditures (AOR 2.2, 95% CI 1.09-4.24), borrowing money to buy food (AOR 4.3, 95% CI 2.31-7.95) or selling jewelry (AOR 5.0, 95% CI 1.74-14.27) to obtain foods. Similar findings were observed for newly food-insecure households. These findings highlight the need for further investment in targeted social protection strategies and safety nets as part of multisectoral solutions to improve HFI during and after COVID-19.</p>	<p>This longitudinal study in India assessed changes in household food insecurity (HFI) during the pandemic among 569 mothers with children &lt;2 years and identified associated coping strategies. HFI increased from 21% in December 2019 to 80% in August 2020, with 62% of households changing from food secure to insecure over this period. These findings highlight the need for targeted social protection strategies to improve HFI among mothers with young children in India.</p>	<p>Nguyen PH, Kachwaha S, Pant A, et al. Impact of COVID-19 on household food insecurity and interlinkages with child feeding practices and coping strategies in Uttar Pradesh, India: a longitudinal community-based study. BMJ Open. 2021;11(4):e048738. Published 2021 Apr 21. doi:10.1136/bmjopen-2021-048738</p>

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COVID-19; pediatric; anesthetic complications; United States	21-Apr-21	<a href="#">Anesthetic Complications Associated with SARS-CoV-2 in Pediatric Patients [Free Access to Abstract Only]</a>	Anesthesia and Analgesia	Original Research	The authors conducted a retrospective cohort study analyzing complications for children aged <18 yrs who underwent anesthesia between 28 April-30 September 2020 at a large, academic pediatric hospital in the United States. Each child with a positive SARS-CoV-2 test within the prior 10 days was matched to a patient with a negative SARS-CoV-2 test. 9,812 general anesthetics that had a pre-operative SARS-CoV-2 test were identified. 51 patients who had positive SARS-CoV-2 testing pre-operatively were included for analysis (median age=10 yrs, IQR=4-15 yrs; 56.8% male). The matched controls cohort included 99 encounters (median age=11 yrs, IQR=5-14 yrs; 50.5% male). Procedure types included: general surgery (47.1%); orthopedic surgery (21.6%); interventional radiology (15.7%); radiology (3.9%); hematology/oncology (3.9%); cardiovascular surgery (2%); gastroenterology (2%); neurosurgery (2%); and ear, nose, and throat surgery (2%). A positive SARS-CoV-2 test was associated with a higher incidence of respiratory complications (11.8% vs. 1%; risk difference=10.8%, 95% CI 1.6-19.8%; p=0.003). After adjustment, the OR for respiratory complications was 14.37 (95% CI 1.59-130.39; p=0.02) for SARS-CoV-2 positive children as compared to controls. There was no occurrence of acute respiratory distress syndrome, postoperative pneumonia, or perioperative mortality in either group. Pediatric patients with non-severe SARS-CoV-2 infection had higher rates of peri-anesthetic respiratory complications than matched controls with negative testing. However, severe morbidity was rare and there were no mortalities.	The authors conducted a retrospective cohort study analyzing complications for children aged <18 years who underwent anesthesia between April 28 - September 30, 2020, at a large, academic pediatric hospital in the United States. Pediatric patients with non-severe SARS-CoV-2 infection had higher rates of peri-anesthetic respiratory complications than matched controls with negative testing. However, severe morbidity was rare, and there were no mortalities.	Saynalath R, Alex G, Efun PN, et al. Anesthetic Complications Associated with SARS-CoV-2 in Pediatric Patients. <i>Anesth Analg.</i> 2021. doi:10.1213/ANE.0000000000005606.
COVID-19; acute lymphoblastic leukemia; pediatrics; remdesivir; SARS-CoV-2	21-Apr-21	<a href="#">A 10-Year-Old Girl With Late Acute Lymphoblastic Leukemia Recurrence Diagnosed With COVID-19 and Treated With Remdesivir [Free Access to Abstract Only]</a>	Journal of Pediatric Hematology/Oncology	Case Report	In this case report, the authors describe a 10-year old girl in Poland with acute lymphoblastic leukemia (ALL) who was diagnosed with SARS-CoV-2 infection and ultimately treated with a course of remdesivir. On admission to the hospital for a scheduled chemotherapy cycle, screening RT-PCR testing for SARS-CoV-2 infection was negative. During the first several days of admission, the patient developed stomatitis, initially treated with amphotericin B and micafungin. She later required multiple transfusions of red blood cells secondary to bone marrow suppression. On the 12th day of admission, the patient began to develop cough and laboratory testing revealed elevated C-reactive protein and procalcitonin. The patient began antimicrobial therapy for agranulocytosis and C. difficile infection. She then developed fever and continued elevation of inflammatory markers. On the 23rd day of hospitalization, the patient required oxygen therapy and a computed tomography scan of the chest revealed scattered areas of ground-glass type opacities, merging into parenchymal consolidations with bronchial distribution in all lobes. On the 25th day of hospital admission, the patient was found to be SARS-CoV-2 positive. Due to the patient's symptoms and chest CT results, she was started on a 5-day course of compassionate use of remdesivir	The authors described a 10-year old girl in Poland with acute lymphoblastic leukemia (ALL) who was diagnosed with SARS-CoV-2 infection and ultimately treated with a course of remdesivir. More research is needed to find optimal treatment regimens for children with severe COVID-19, including in groups of patients with risk factors for high-risk disease.	Gadzińska J, Kuchar E, Matysiak M, Wanke-Rytm M, Kloc M, Kubiak JZ. A 10-Year-Old Girl With Late Acute Lymphoblastic Leukemia Recurrence Diagnosed With COVID-19 and Treated With Remdesivir [published online ahead of print, 2021 Apr 21]. <i>J Pediatr Hematol Oncol.</i> 2021;10.1097/MPH.0000000000002166. doi:10.1097/MPH.0000000000002166

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					treatment and her condition improved; she was discharged on the 38th day of hospitalization. The authors suggest that physicians must exercise caution in managing hematologic diseases with COVID-19. More research is needed to find optimal treatment regimens for children with severe COVID-19, including in groups of patients with high-risk factors.		
telehealth, apps, SDOH, Moms2B, disparities, pregnancy	21-Apr-21	<a href="#">Using Telehealth Approaches to Address Social Determinants of Health and Improve Pregnancy and Postpartum Outcomes</a>  <a href="#">[Free Access to Abstract Only]</a>	Clinical Obstetrics and Gynecology	Article	With a focus on US-specific resources, this article describes telehealth modalities and their application to improve the social determinants of health (SDOH) that impact pregnancy and postpartum outcomes in the context of the COVID-19 pandemic. Physicians and patients alike report satisfaction with telehealth as it improves access to education, disease monitoring, specialty care, prenatal and postpartum care. The authors provide strategies to promote equitable access to telehealth (see Table 1), arguing that telehealth modalities not only improve SDOH for pregnant and postpartum women, but that the rise of telehealth in the context of the pandemic makes telehealth access an SDOH in itself. For example, text-based postpartum support has been shown to contribute to higher rates of continued and exclusive breastfeeding. Lifeline provides US patients with subsidized voice, text, internet, and video services for households up to 135% of the US federal poverty level. Patient portals can foster two-way communication, increase health literacy, and promote self-advocacy. Continued use of telehealth video conference platforms beyond the pandemic can increase access for low-income and rural patients by reducing the cost of transportation to appointments and missed time from work. They also provide examples of telehealth modalities for group-based postpartum support, mental health support, and opioid use treatment for pregnant women. Finally, they present a case study of how Moms2B, a community group program designed to improve the SDOH for underserved pregnant women, transitioned to a virtual format. As emergency authorizations during the COVID-19 pandemic have allowed telehealth to flourish, more evidence has shown how telehealth can continue to improve the SDOH for pregnant and postpartum women beyond the pandemic.	With a focus on US-specific resources, this article describes telehealth modalities and their application to improve the social determinants of health (SDOH) that impact pregnancy and postpartum outcomes in the context of the COVID-19 pandemic. The authors provide strategies to promote equitable access to telehealth and present a case study of how Moms2B, a community group program designed to improve the SDOH for underserved pregnant women, transitioned to a virtual format.	Dixon-Shambley K, Gabbe PT. Using Telehealth Approaches to Address Social Determinants of Health and Improve Pregnancy and Postpartum Outcomes [published online, 2021 Apr 21]. Clin Obstet Gynecol. 2021;10.1097/GRF.0000000000000611. doi:10.1097/GRF.0000000000000611
Adults; Antibodies; Children; Infants; SARS-CoV-2	20-Apr-21	<a href="#">Circulating anti-SARS-CoV-2 nucleocapsid (N)-protein antibodies and anti-SARS-CoV-2 spike (S)-protein antibodies in an African setting: herd</a>	BioMed Central (BMC) Research Notes	Research Note	The main argument for Africa's resilience to the COVID-19 pandemic has been the younger age of its population. The median age in Gabon is around 20 years old, with more than 60% of the population under 25 years old. It is in that context that an age-stratified sero-epidemiological study was conducted to determine the extent of SARS-CoV-2 exposure in parts of the population. 1,492 adults and children [based on abstract and tables; discrepancy with text] were enrolled July - October 2020; 110 infants aged ≤9 months (7.4%), 141 children ages 1-5 years (9.4%),	This age-stratified sero-epidemiological study was conducted to determine SARS-CoV-2 exposure in Gabon. They estimated an overall prevalence of anti-SARS-CoV-2 antibodies of 36.2% (neutralizing antibodies, 27%), with little difference between	Mveang Nzoghe A, Leboueny M, Kuissi Kamgaing E, et al. Circulating anti-SARS-CoV-2 nucleocapsid (N)-protein antibodies and anti-SARS-CoV-2 spike (S)-protein antibodies in an African setting: herd immunity, not there yet!. BMC Res Notes. 2021;14(1):152.

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		<a href="#">immunity, not there yet!</a>			143 children ages 6-17 years old (9.6%), 993 adult women 18-85 years old (66.5%) and 105 men 18-78 years old (7%) [source of discrepancy; 108 in text and 105 in table 1]. The overall prevalence of anti-SARS-CoV-2 antibodies was 36.2%. Moreover, 76.4% of people who developed a humoral response to SARS-CoV-2 produced both anti-SARS-CoV-2 N-protein antibodies and anti-SARS-CoV-2 S-protein antibodies, which correspond to 27.7% of the total population. In infants (0-9 month), children (1-17 years) and adults, the prevalence of anti-SARS-CoV-2 antibodies was relatively the same, between 33 and 37% (any antibody types) and between 25 and 28.6% (neutralizing antibodies). These data suggest that herd immunity is not yet to be achieved in Gabon; given wide variation in crude antibody seroprevalence (Kenya 4.3% vs. South Africa 32-63% vs. worldwide 3.6%), the authors argue in support of COVID-19 vaccination campaigns in Africa as opposed to a strategy of natural herd immunity. They also note that 28% of newborn infants (aged 0 to 3 months) showed evidence of antibodies against both SARS-CoV-2 N- and S-protein, bringing further evidence of mother-to-child transfer of protective immunity.	infants, children, and adults. These data suggest that herd immunity is not yet to be achieved in Gabon; given wide variation in crude antibody seroprevalence the authors argue in support of COVID-19 vaccination campaigns in Africa as opposed to a strategy of natural herd immunity. They also note a seroprevalence of 28% in newborn infants, suggesting mother-to-child transfer of protective immunity.	Published 2021 Apr 20. doi:10.1186/s13104-021-05570-3
China, COVID-19, pregnancy, neonate, lymphocytes	20-Apr-21	<a href="#">Retrospective Analysis of Clinical Characteristics and Neonatal Outcomes of Pregnant Women with SARS-COV-2 Infection</a>	Current Medical Science	Original Research	This retrospective study aimed to investigate the clinical characteristics and neonatal outcomes of pregnant women with SARS-CoV-2 infection in the Wuhan Children's Hospital (China). 8 pregnant women (mean age=30.6 years, range 24 - 39; mean gestational age=37+4 weeks, range 29+6 - 40) with SARS-CoV-2 infection (confirmed with either nucleic acid or antibody testing) were recruited from February 1-March 30, 2020. Clinical features, laboratory data, and maternal and neonatal outcomes were analyzed. For all women, white blood cell and lymphocyte counts were normal, but 6/8 women had a low percentage of lymphocytes. C-reactive protein (CRP) levels were normal for all the women. One neonate tested positive for SARS-CoV-2 IgG and IgM antibodies via nucleic acid test. The symptoms of the pregnant women with SARS-COV-2 were mild, and the laboratory data were similar to those of non-infected pregnant women. Since one neonate tested positive for SARS-CoV-2, the authors argue that there is a possibility of vertical transmission. Thus, they conclude that prompt and efficient screening, triage, and isolation of pregnant women should be used to reduce hospital-based infection during the COVID-19 pandemic	This retrospective study aimed to investigate the clinical characteristics and neonatal outcomes of pregnant women with SARS-CoV-2 infection in the Wuhan Children's Hospital (China). 8 pregnant women with SARS-CoV-2 infection were recruited from February 1-March 30, 2020 and had unremarkable clinical courses, although 6/8 women had low percentage of lymphocytes. The authors recommend that prompt and efficient screening, triage, and isolation of pregnant women be used to reduce hospital-based infection during the COVID-19 pandemic.	Chen Y, Pang XL, Ding WP, et al. Retrospective Analysis of Clinical Characteristics and Neonatal Outcomes of Pregnant Women with SARS-COV-2 Infection. Curr Med Sci. 2021 Apr;41(2):306-311. doi: 10.1007/s11596-021-2347-9. PMID: 33877546; PMCID: PMC8056188.

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
COVID-19; problematic gaming; problematic smartphone use; problematic social media use; psychological distress; school lockdown	20-Apr-21	<a href="#">Internet-Related Behaviors and Psychological Distress Among Schoolchildren During the COVID-19 School Hiatus</a>	Cyberpsychology, Behavior and Social Networking	Original Research	This study assessed the mediating roles of problematic gaming, problematic social media use, and problematic smartphone use in the associations between psychological distress and screen time use among primary school children during the school lockdown due to COVID-19. Students (n = 2,026; mean [SD] age = 10.71 years [1.07]; 1,011 [49.9 %] girls) in Sichuan, China completed a cross-sectional online survey between March 4-16, 2020. The Internet Gaming Disorder Scale-Short Form, Bergen Social Media Addiction Scale, and Smartphone Application-Based Addiction Scale were used to assess problematic gaming, social media use, and smartphone use. The Depression, Anxiety, Stress Scale-21 was used to assess distress, and an item rated on a 0-10 scale was included to assess fear of COVID-19. Fear of COVID-19 was assessed because this could be a confounding variable in the association between psychological distress and screen time use. Increased time spent on gaming, social media, and smartphones was associated with greater problematic gaming (p<0.001), problematic social media use (p<0.001), problematic smartphone use (p<0.001), and psychological distress (p<0.001), but was not associated with fear of COVID-19. Problematic gaming, problematic social media use, and problematic smartphone use were significant mediators in the association between psychological distress and increased time spent on Internet-related activities during the COVID-19 outbreak period. The authors recommend parents/caregivers monitor their children's use of Internet while encouraging children to engage in positive activities to ease the concern of negative psychological responses during the COVID-19 pandemic.	This study assessed the mediating roles of problematic gaming, problematic social media use, and problematic smartphone use in the associations between psychological distress and screen time use among primary school children during the school lockdown due to COVID-19. Increased time spent on gaming, social media, and smartphones was associated with greater problematic gaming, problematic social media use, and psychological distress, but was not associated with fear of COVID-19.	Chen CY, Chen IH, Pakpour AH, Lin CY, Griffiths MD. Internet-Related Behaviors and Psychological Distress Among Schoolchildren During the COVID-19 School Hiatus [published online ahead of print, 2021 Apr 20]. <i>Cyberpsychol Behav Soc Netw</i> . 2021;10.1089/cyber.2020.0497. doi:10.1089/cyber.2020.0497
COVID-19; post-acute outcomes; children; SARS-CoV-2 infection; asymptomatic disease	20-Apr-21	<a href="#">Post-acute COVID-19 outcomes in children with mild and asymptomatic disease</a>	The Lancet Child and Adolescent Health	Correspondence	In this correspondence, the authors describe clinical outcomes occurring 3–6 months after diagnosis in children with COVID-19 who presented to a tertiary pediatric hospital in Australia. 171 children (≤ 18 years) who tested positive for SARS-CoV-2 infection between March 21 and October 28, 2020, were included in this study. The median age of participants was 3 years old (IQR 1–8), 90 (53%) were boys and 81 (47%) girls. A standardized clinic proforma was used to collect data about participants' demographic information, acute COVID-19 symptoms, risk factors, medical history and post-acute COVID-19 symptoms. Most children had mild disease (100 [58%]) or were asymptomatic (61 [36%]), and nine (5%) children had moderate disease. One (1%) child with complex congenital heart disease had severe COVID-19 pneumonitis and 2 (1%) children had post-acute COVID-19 inflammatory conditions temporally associated with SARS-CoV-2 (including one with PIMS and one with Kawasaki disease). Data were available for 151 (88%) of the participants 3-6 months following acute presentation; 12 (8%) children had post-acute COVID-19 symptoms, all of whom were symptomatic with acute	The authors described the clinical outcomes occurring 3–6 months after diagnosis in children with COVID-19 who presented to a tertiary pediatric hospital in Australia. Full recovery occurred within weeks of acute symptom onset and symptoms were mild in severity; however, the authors suggest that ongoing follow-up of pediatric patients with COVID-19 is needed to comprehensively describe long-term outcomes in this population.	Say D, Crawford N, McNab S, et al. Post-acute COVID-19 outcomes in children with mild and asymptomatic disease. <i>Lancet Child Adolesc Health</i> . 2021; doi:10.1016/S2352-4642(21)00124-3

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					COVID-19. The most common post-acute symptoms were mild post-viral cough (6 [4%]) and fatigue (3 [2%]). The duration of post-viral cough ranged from 3 weeks to 8 weeks and post-viral fatigue ranged from 6 weeks to 8 weeks. Full recovery occurred within weeks of acute symptom onset and symptoms were mild in severity; however, the authors suggest that ongoing follow-up of pediatric patients with COVID-19 is needed to comprehensively describe long-term outcomes in this population.		
SARS-CoV-2, COVID-19, Children, Antigen-based rapid diagnostic tests, Pediatric, Symptomatic, Asymptomatic, Sensitivity, Specificity, Diagnostics	20-Apr-21	<a href="#">Diagnostic Accuracy of SARS-CoV-2 Rapid Antigen Detection Testing in Symptomatic and Asymptomatic Children in the Clinical Setting</a>	medRxiv	Preprint (not peer-reviewed)	This prospective diagnostic study aimed to evaluate the diagnostic performance of the Panbio-COVID-19 Ag Rapid Test Device (P-RDT) in symptomatic and asymptomatic children against RT-PCR testing on nasopharyngeal swabs. The study was performed in children ages 0-16 years of age (n= 822) from November 2020 to March 2021. The results showed that 533 (64.9%) of participants were symptomatic. Among the 119 (14.5%) RT-PCR positive patients, the overall P-RDT sensitivity was 0.66 (95% CI: 0.57-0.74). Mean viral load (VL) was higher among P-RDT positive tests compared to negative ones (p<0.001). Sensitivity was 0.87 in specimens with VL>1.0E6 copies/mL (95%CI 0.87-1.00), which is the accepted cut-off for the presence of infectious virus, and decreased to 0.67 (95%CI 0.59-0.76) for specimens >1.0E3 copies/mL. Among symptomatic participants, the P-RDT had a sensitivity of 0.73 (95% CI: 0.64-0.82). There was a trend towards lower P-RDT sensitivity in symptomatic children <12 years (0.62, 95% CI: 0.45-0.78) versus 12 years and older (0.80, 95% CI: 0.69-0.91, p=0.09). In asymptomatic participants, the P-RDT had a sensitivity of 0.43 (95% CI: 0.26-0.61), and the VL was significantly lower than in symptomatic participants (p<0.001). In conclusion, the overall respective 73% and 43% sensitivities of P-RDT in symptomatic and asymptomatic children, respectively, were below the 80% cut-off recommended by the World Health Organization. These findings are likely explained by the lower VLs in children at the time of diagnosis. These data highlight the limitations of RDTs both in symptomatic and asymptomatic children, with the potential exception in early symptomatic children ≥12yrs where sensitivity reached 80%.	This prospective diagnostic study aimed to evaluate the diagnostic performance of the Panbio-COVID-19 Ag Rapid Test Device (P-RDT) in symptomatic and asymptomatic children against RT-PCR testing on nasopharyngeal swabs. The overall respective 73% and 43% sensitivities of P-RDT in symptomatic and asymptomatic children, respectively, were below the 80% cut-off recommended by the World Health Organization. These data highlight the limitations of RDTs both in symptomatic and asymptomatic children, with the potential exception in early symptomatic children ≥12yrs where sensitivity reached 80%.	L'huillier AG, Lacour M, Sadiku D, et al. Diagnostic accuracy of SARS-CoV-2 rapid antigen detection testing in symptomatic and asymptomatic children in the clinical setting. . 2021. doi: 10.1101/2021.04.15.21255577
COVID-19, SARS-CoV-2, Children, Adolescents	20-Apr-21	<a href="#">Asymptomatic or Mild Symptomatic SARS-CoV-2 Infection Elicits Durable Neutralizing Antibody Responses in Children and Adolescents</a>	medRxiv	Preprint (not peer-reviewed)	This study aimed to evaluate the humoral immune responses in children diagnosed with asymptomatic and symptomatic SARS-CoV-2 infections. 69 children and adolescents (median [interquartile range (IQR)] age = 11.5(5.2, 16.5) years; 51% female) with positive PCR tests for SARS-CoV-2 between May 1 and July 31, 2020, were included in the study. 55 (80%) participants reported one or more symptoms associated with acute SARS-CoV-2 infection, while 14 (20%) participants were asymptomatic. The most common symptoms reported were fever (49%), cough (36%), and headache (29%). The results showed robust IgM, IgG, and IgA antibody responses to a broad array of SARS-CoV-2 antigens at the time of acute infection and 2 and 4 months after acute infection in	This study aimed to evaluate the humoral immune responses in children diagnosed with asymptomatic and symptomatic SARS-CoV-2 infections. The results showed robust IgM, IgG, and IgA antibody responses to a broad array of SARS-CoV-2 antigens at the time of acute infection and 2 and 4 months after acute infection in all	Garrido C, Hurst JH, Lorang CG, et al. Asymptomatic or mild symptomatic SARS-CoV-2 infection elicits durable neutralizing antibody responses in children and adolescents. . 2021. doi: 10.1101/2021.04.17.21255663

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					all participants. Notably, these antibody responses were associated with virus-neutralizing activity that was still detectable 4 months after acute infection in 94% of children. Moreover, antibody responses and neutralizing activity in sera from children and adolescents were comparable or superior to those observed in sera from 24 adults with mild symptomatic infection. In conclusion, these findings suggest that children and adolescents with mild or asymptomatic SARS-CoV-2 infection generate robust and durable humoral immune responses that are likely to protect from reinfection.	participants. These findings suggest that children and adolescents with mild or asymptomatic SARS-CoV-2 infection generate robust and durable humoral immune responses that are likely to protect from reinfection.	
COVID-19, SARS-CoV-2, Maternal Outcomes, Neonatal Outcomes, Neonates, Pregnancy, Maternal, Clinical symptoms	20-Apr-21	<a href="#">Clinical Outcomes of Maternal and Neonate with COVID-19 Infection– Multicentre Study in Saudi Arabia</a>	Journal of Infection and Public Health	Original Research	This retrospective descriptive study aimed to investigate maternal and neonatal outcomes in pregnant women with confirmed SARS-CoV-2 infections and the likelihood of vertical transmission of SARS-CoV-2. The study was conducted in 3 medical centers located in Saudi Arabia between March and November 2020. Data were collected from available medical records using a standardized questionnaire on maternal and neonatal outcomes. 288 pregnant women with confirmed SARS-CoV-2 infections (median age= 30 years; median gestational age at diagnosis = 38 weeks; 27% obese) were analyzed. The majority of pregnant women were symptomatic, with cough (n=92, 31.9%) being the most frequent symptom followed by fever and dyspnea (n=36, 12.5%). 204 pregnant women delivered (70.84%), of which 35.8% were via cesarean section. The most common adverse pregnancy outcome was prematurity (n=31, 15.5%), followed by fetal distress (n=13, 6.5%), preeclampsia (n=4, 2.0%), and 1 pregnant woman died. However, a small proportion of pregnant women were admitted to the ICU (3.8%). 4 of 204 neonates died, and less than half of neonates required admission to the neonatal ICU (n=86, 43%). 7% of neonates required respiratory support of mechanical ventilation, and none got infected with SARS-CoV-2. These findings suggest that the majority of pregnant women had mild or moderate SARS-CoV-2 infection symptoms, and there was no evidence of vertical transmission from mothers to their neonates. This study may provide a baseline for further studies focusing on investigating long-term maternal and neonatal outcomes and possible vertical transmission of SARS-CoV-2 from mothers to neonates.	This retrospective descriptive study aimed to investigate maternal and neonatal outcomes in pregnant women with confirmed SARS-CoV-2 infections and the likelihood of vertical transmission of SARS-CoV-2. Findings suggest that the majority of pregnant women had mild or moderate symptoms, and there was no evidence of vertical transmission. This study may provide a baseline for further studies focusing on investigating long-term maternal and neonatal outcomes and possible vertical transmission of SARS-CoV-2 from mothers to neonates.	Al-Matary A, Almatari F, Al-Matary M, et al. Clinical outcomes of maternal and neonate with COVID-19 infection–Multicentre study in Saudi Arabia. Journal of Infection and Public Health. 2021. doi: 10.1016/j.jiph.2021.03.013.
preschool; SARS-CoV-2; transmission; testing; seropositivity	20-Apr-21	<a href="#">NewsCAP: Low rates of COVID-19 in preschool-aged children</a>	American Journal of Nursing	News	This news article briefly reports on a study published in the April 2021 Lancet Child and Adolescent Health reporting low rates of SARS-CoV-2 infection in preschool-aged children attending day care in France from March to May 2020. Among children ages 5 months to 4 years [no mean age reported] at 22 day care centers, only 3.7% were seropositive. Seropositive children were more likely than seronegative children to have a seropositive parent, indicating that the children were most likely infected by their parents, rather than by other children or day care staff. The	This news article briefly describes a study reporting low rates of SARS-CoV-2 infection in preschool-aged children attending day care in France. Seropositive children were more likely than seronegative children to have a seropositive parent,	NewsCAP: Low rates of COVID-19 in preschool-aged children. Am J Nurs. 2021;121(5):17. doi:10.1097/01.NAJ.0000751060.08558.2a

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					authors conclude that children in day care are more likely to contract SARS-CoV-2 at home than at a day care center. The day care centers followed standard COVID-19 safety precautions, including having small cohorts of 6-8 children, disinfecting surfaces, social distancing among staff, and screening for COVID symptoms.	indicating that the children were most likely infected by their parents, rather than by other children or day care staff.	
SARS-CoV-2, COVID-19, Children, Adults, sCycle threshold, Viral load	20-Apr-21	<a href="#">Infants Have Lower RT-PCR Cycle Threshold for SARS-CoV-2 in Comparison with Older Children and Adults</a>	medRxiv	Preprint (not peer-reviewed)	This prospective study aimed to evaluate how RT-PCR Ct values among children with confirmed SARS-CoV-2 infections compare with adults. Children ages 2 months to 18 years of age were included in this study along with adults over 18 years of age, all of whom presented with signs and symptoms of acute SARS-CoV-2 infections for less than 7 days, between May and November 2020. All study participants underwent RT-PCR assay for SARS-CoV-2 detection. Ct values of ORF1ab, N, and S gene-targets and the average of all three probes were used as surrogates of viral load. The results showed that of the 376 participants with confirmed SARS-CoV-2 infections, there were 21 infants, 62 children, and 293 adults. The RT-PCR Ct values of children under 18 years were not significantly different from that of adults, as observed by the analyzed probes (ORF1ab, N, and S). However, infants had significantly lower Ct values compared to children and adults (p=0.044). In conclusion, Ct values for children were not significantly different from that of adults with positive SARS-CoV-2 infections. Infants were found to have lower Ct values when compared to older children and adults. Although the viral load is not considered the only determinant of transmission, infants may play a significant role in the spread of SARS-CoV-2 infections in the community, especially if or when this population returns to regular daycare activities.	This prospective study aimed to evaluate how RT-PCR Ct values among children with confirmed SARS-CoV-2 infections compare with adults. Ct values for children were not significantly different from that of adults with positive SARS-CoV-2 infections. Infants were found to have lower Ct values when compared to older children and adults. Although the viral load is not considered the only determinant of transmission, infants may play a significant role in the spread of SARS-CoV-2 infections.	Polese-Bonatto M, Sauthier Sartor IT, Varela FH, et al. Infants have lower RT-PCR cycle threshold for SARS-CoV-2 in comparison with older children and adults. 2021. doi: 10.1101/2021.04.20.21255059
COVID-19; SARS-CoV-2; adolescent; meningococcaemia	20-Apr-21	<a href="#">Fatal meningococcaemia in a SARS-CoV-2-positive adolescent</a>	Journal of Paediatrics and Child Health	Case Report	The authors present the case of a 14-year-old male presenting to the emergency department in Portugal with a 12-hour history of fever, dyspnea, and vomiting. He had psoriasis, which had been treated with 0.2mg/kg/day of prednisolone for 2 months. He was poorly responsive, hypotensive, tachypneic, febrile, and tachycardic at presentation. A prolonged capillary refill time and purpuric rash were evident. Cultures were collected, and IV ceftriaxone and fluid resuscitation were immediately started to treat presumed septic shock. His laboratory results indicated thrombocytopenia, high C-reactive protein, acute renal failure, metabolic acidosis, hyper-lactic acidemia, and he also tested positive for SARS-CoV-2. His clinical condition deteriorated with refractory shock and multi-organ dysfunction. He did not respond to treatment options such as mechanical ventilation, resuscitation guided by invasive hemodynamic monitoring, renal replacement therapy, broad-spectrum antibiotics (meropenem and vancomycin), blood products, and IV immunoglobulin resulting in his death 18 hours after admission. His blood cultures, collected at	The authors present a case of meningococcaemia in a SARS-CoV-2-positive 14-year-old male in Portugal. Despite treatment, his clinical condition deteriorated with refractory shock and multi-organ dysfunction resulting in his death 18 hours after admission. This case demonstrates the challenge around diagnosing and managing a critical patient with suspected bacterial coinfection in the COVID-19 pandemic era, with limited scientific literature and knowledge.	Rebelo A, Dias DI, Sousa E, et al. Fatal meningococcaemia in a SARS-CoV-2-positive adolescent [published online, 2021 Apr 20]. J Paediatr Child Health. 2021;10.1111/jpc.15508. doi:10.1111/jpc.15508

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					admission, grew <i>Neisseria meningitidis</i> serogroup B after 48 hours of incubation, sensitive to penicillin and ceftriaxone. The patient had not received vaccination for this strain of meningococcus, which only became routinely available in Portugal in October 2020. The possibility of <i>N. meningitidis</i> co-infection is of concern among children and young adults with SARS-CoV-2 infection, as higher rates of meningococcal carriage are known in this age range. This case demonstrates the challenge around diagnosing and managing a critical patient with suspected bacterial co-infection in the COVID-19 pandemic era, with limited scientific literature and knowledge.		
COVID-19; maternal health; placenta pathology; vertical transmission	20-Apr-21	<a href="#">Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Infecting Pregnant Women and the Fetus, Intrauterine Transmission and Placental Pathology During the Coronavirus Disease 2019 (COVID-19) Pandemic: It's Complicated</a>	Archives of Pathology & Laboratory Medicine	Review	This review summarizes and synthesizes the findings of 2 studies on placental pathology in pregnant women infected with SARS-CoV-2. The authors present 5 conclusions on placental pathology. (1) The syncytiotrophoblast is the cell type most susceptible to SARS-CoV-2 infection in the maternal-fetal interface; (2) syncytiotrophoblast infection usually presents with chronic histiocytic intervillitis and trophoblast necrosis on placenta pathology for both liveborn and nonviable neonates; (3) transplacental transmission of SARS-CoV-2 can lead to intra-uterine infection of the fetus, but it is very uncommon; (4) placental pathology for COVID-19 patients is associated with placental SARS-CoV-2 infection, specifically when the syncytiotrophoblast is infected; (5) chronic histiocytic intervillitis, trophoblast necrosis, and syncytiotrophoblast infection are risk factors for fetal infection. The authors note that few placentas are infected with SARS-CoV-2, and hypothesize that there are immune defenses against viral infection in the maternal-fetal interface. They urge further research to understand how the placenta permits or inhibits perinatal SARS-CoV-2 infection.	This review summarizes and synthesizes the findings of 2 studies on placental pathology in pregnant women infected with SARS-CoV-2. The authors present 5 conclusions on placental pathology, concerning infection of the syncytiotrophoblast, fetal infection, and risk factors for fetal infection. They note that few placentas are infected with SARS-CoV-2, and hypothesize that there are immune defenses against viral infection in the maternal-fetal interface.	Schwartz DA, Levitan D. Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Infecting Pregnant Women and the Fetus, Intrauterine Transmission and Placental Pathology During the Coronavirus Disease 2019 (COVID-19) Pandemic: It's Complicated. Arch Pathol Lab Med. 2021 Apr 20. doi: 10.5858/arpa.2021-0164-ED
COVID-19, pregnancy, COVID-19 symptoms, COVID-19 screening	20-Apr-21	<a href="#">Clinical and Demographic Risk Factors for COVID-19 during Delivery Hospitalizations in New York City</a>  <a href="#">[Free Access to Abstract Only]</a>	American Journal of Perinatology	Original Research	This retrospective cohort study aimed to evaluate 4 weeks of COVID-19 screening among delivery hospitalizations to compare outcomes between patients based on COVID-19 status and to determine whether demographic risk factors and symptoms predicted screening positive for SARS-CoV-2. The researchers evaluated 454 women (mean age: 30 years, range not provided) admitted for delivery from March 22 to April 18, 2020, at 2 New York City (USA) hospitals. Both obstetrical and neonatal outcomes were collected. Adjusted logistic regression models were performed to determine predictability of demographic risk factors for COVID-19. Out of the 454, 79 (17%) had COVID-19. Within those 79, 27.9% (n=22) showed symptoms such as cough (13.9%), fever (10.1%), chest pain (5.1%), and myalgia (5.1%). Most delivery outcomes were similar between women with and without SARS-CoV-2 infection except women with COVID-19 were less likely to have a vaginal delivery (51.9% vs. 55.2%, p=0.04) and had a significantly longer postpartum length of stay with cesarean	This retrospective cohort study evaluated 4 weeks of COVID-19 screening among delivery hospitalizations to compare outcomes between patients based on COVID-19 status and to determine whether demographic risk factors and symptoms predicted screening positive for SARS-CoV-2. Most delivery outcomes were similar between women with and without SARS-CoV-2 infection except women with COVID-19 were less likely to have a vaginal delivery and had a significantly longer postpartum	Sutton D, Wen T, Staniczenko AP, et al. Clinical and Demographic Risk Factors for COVID-19 during Delivery Hospitalizations in New York City [published online ahead of print, 2021 Apr 20]. Am J Perinatol. 2021; 10.1055/s-0041-1727168. doi:10.1055/s-0041-1727168

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					delivery (2.67 vs. 2.00 days, $p < 0.01$ ). COVID-19 was associated with higher risk for diagnoses of chorioamnionitis and pneumonia and fevers without a focal diagnosis. In adjusted analyses, including demographic factors, logistic regression demonstrated an area under the curve (AUC) of 0.71 (95% CI: 0.69-0.80) from the receiver operating characteristic (ROC) curve. While demographic risk factors demonstrated acceptable discrimination, risk prediction does not capture a significant portion of COVID-19-positive patients.	length of stay with cesarean delivery.	
COVID-19, Pandemic, SARS-CoV-2, Physical activity, Screen exposure, Sleep, Students, Children	20-Apr-21	<a href="#">Physical Activity, Screen Exposure and Sleep Among Students During the Pandemic of COVID-19</a>	Scientific Reports	Original Research	This cross-sectional study aimed to determine the levels of health-related behaviors among Chinese students from primary, secondary, and high schools during the COVID-19 pandemic, and their changes compared with their status before the pandemic. An online survey was conducted among 10 schools in Guangzhou, China, comprising 10,933 students, between March 8-15, 2020. The questionnaire asked about time spent on health-related behaviors during the COVID-19 pandemic, compared with 3 months before the pandemic. Students were stratified by region, gender, and grade (lower grades of primary school, higher grades of primary schools, secondary schools, and high schools). The response rate was 95.3%. The median age of included students was 13.0 years, and 50.1% were boys. 41.4%, 53.6% and 53.7% of total students reported <15 minutes per day in light, moderate, and vigorous activities, respectively, and 58.7% reported decreased physical activity compared to before the pandemic. >5 hours of daily screen time was reported by 44.6% of respondents, particularly among high schoolers (81.0%). 76.9% of students reported increased screen time during the pandemic. Inadequate sleep was identified among 38.5% of students, and the proportion was highest among high schoolers (56.9%). The study concluded that during the COVID-19 pandemic, school closure exerted negative effects on students' health behaviors, including less physical activity, longer screen exposure, and irregular sleeping patterns.	This cross-sectional study aimed to determine the levels of health-related behaviors (i.e., physical activity, screen exposure and sleep status) among Chinese students from primary, secondary, and high schools during the COVID-19 pandemic, and their changes compared with their status before the pandemic. The study concluded that during the COVID-19 pandemic, school closure exerted negative effects on students' health behaviors, including less physical activity, longer screen exposure, and irregular sleeping patterns.	Guo YF, Liao MQ, Cai WL, et al. Physical activity, screen exposure and sleep among students during the pandemic of COVID-19. Sci Rep. 2021;11(1):8529. Published 2021 Apr 20. doi:10.1038/s41598-021-88071-4
COVID-19; diabetic ketoacidosis; cardiac arrhythmias; pediatric emergency medicine; United States	<a href="#">19-Apr-21</a>	<a href="#">Triple threat: New presentation with diabetic ketoacidosis, COVID-19, and cardiac arrhythmias</a>	The American Journal of Emergency Medicine	Article	The authors described 2 children with COVID-19, new-onset diabetic ketoacidosis (DKA) and cardiac arrhythmias [dates not specified]. The first case was that of a 17-year-old female that presented with altered mental status, fever, nausea, and vomiting. She tested positive for SARS-CoV-2 by PCR. During transport to a pediatric tertiary care center, she had worsening mental status and an abnormal cardiac rhythm. She was treated with lidocaine, magnesium, and calcium gluconate with conversion to sinus tachycardia with pre-ventricular contractions and intermittent Mobitz type I heart block. Her arrhythmia was presumed to be ventricular tachycardia due to severe acidosis. The second patient was a 12-year-old male with 2 days of vomiting, increased thirst, and fatigue without other infectious symptoms. Initial laboratory	The authors described 2 children with COVID-19, new-onset diabetic ketoacidosis and cardiac arrhythmias. These cases emphasize the importance of close cardiac and electrolyte monitoring in patients with SARS-CoV-2 infection.	Howard MB, Basu S, Sherwin E, et al. Triple threat: New presentation with diabetic ketoacidosis, COVID-19, and cardiac arrhythmias. Am J Emerg Med. 2021:S0735-6757(21)00331-4. doi:10.1016/j.ajem.2021.04.045.

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					evaluation was consistent with severe DKA. He tested positive for SARS-CoV-2 PCR. He had increased heart rate during resuscitation with IV fluids. He was sedated, intubated, and cardioverted with conversion to sinus rhythm. He had no subsequent arrhythmias and was extubated during his first hospital day. His DKA resolved with insulin and fluids. His arrhythmia was presumed to be due to electrolyte disturbances. These cases emphasize the importance of close cardiac and electrolyte monitoring in patients with SARS-CoV-2 infection.		
acceptance, COVID-19, hesitancy, pregnant women, SARS-CoV-2, vaccine, Turkey	19-Apr-21	<a href="#">COVID-19 vaccine acceptance in pregnant women</a>	International Journal of Gynaecology and Obstetrics	Clinical Article	This article seeks to determine the levels of acceptance and hesitancy among pregnant women regarding the COVID-19 vaccine. Pregnant women (n=300) seeking prenatal care at Ankara City hospital in Turkey between January 1-February 1, 2021 were recruited for this study. Data were collected via face-to-face survey, which contained 40 questions about socio-demographic characteristics, vaccination history, perception of risk related to the COVID-19 pandemic, the impact of the COVID-19 pandemic, and acceptance and attitude toward future COVID-19 vaccination. Among all participants, 111 (37%) stated their intent to receive the vaccine if it were recommended for pregnant women. Main refusal reasons were lack of data about COVID-19 vaccine safety in the pregnant population and possibility of harm to the fetus. There was a weak positive correlation between COVID-19 vaccine acceptance and number of school-age children (p<0.05). Pregnant women in the first trimester expressed higher acceptance of COVID-19 vaccination than those in the second and third trimesters (p<0.05). In summary, this study reports low acceptance of COVID-19 vaccination in a sample of pregnant women. Concern about vaccine safety was the major hesitancy reason, so identifying attitudes among priority groups will be useful to create vaccination strategies that are most effective in the COVID-19 pandemic.	This article seeks to determine the levels of acceptance and hesitancy among pregnant women with regard to the COVID-19 vaccine. Among 300 pregnant women in Turkey, 37% stated their intent to receive the vaccine if it were recommended for pregnant women, and the most common reasons for refusal were lack of data about COVID-19 vaccine safety in the pregnant population and possibility of harm to the fetus. In summary, this study reports low acceptance of COVID-19 vaccination in a sample of pregnant women, suggesting that identifying attitudes among priority groups will be useful to create effective vaccination strategies in the COVID-19 pandemic.	Goncu Ayhan S, Oluklu D, Atalay A, et al. COVID-19 vaccine acceptance in pregnant women [published online ahead of print, 2021 Apr 19]. Int J Gynaecol Obstet. 2021. doi:10.1002/ijgo.13713
digital media, mobile phone, internet, addiction, ADHD, children, adolescent, China	19-Apr-21	<a href="#">Influences of digital media use on children and adolescents with ADHD during COVID-19 pandemic</a>	Globalization and Health	Original Research	This study sought to determine how digital media influenced children and adolescents with attention deficit hyperactivity disorder (ADHD) during the COVID-19 pandemic. Participants (n=192, age range 8-16 years) from Shanghai, China were recruited between April and May 2020. Participants completed 2 questionnaires: (1) The Self-rating Questionnaire for Problematic Mobile Phone Use (SQPMPU), used to estimate the dependence symptoms of mobile phone use for Chinese adolescents. A score >27 indicates problematic mobile phone use. (2) The Young's Internet Addiction Test (IAT). A score of >40 indicates problematic internet use. Any participant scoring higher than the cut-off point on either SQPMPU or IAT were defined as problematic digital media users (PDMUs), and others were defined as without PDMU. The group with PDMU had significantly worse symptoms for	This study sought to determine how digital media influenced children and adolescents in Shanghai, China with attention deficit hyperactivity disorder (ADHD) during the COVID-19 pandemic. Participants with problematic mobile phone and internet usage had significantly worse symptoms of inattention, oppositional defiance, conduct problems, and emotional problems. The authors note that supervision	Shuai L, He S, Zheng H, et al. Influences of digital media use on children and adolescents with ADHD during COVID-19 pandemic. Global Health. 2021;17(1):48. doi:10.1186/s12992-021-00699-z

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					inattention ( $p = 0.04$ ), oppositional defiance ( $p = 0.01$ ), conduct problems ( $p = 0.01$ ), and emotional problems ( $p < 0.001$ ), when compared to the ADHD group without PDMU. The authors note that supervision of digital media usage, especially video games and social media, along with increased physical exercise, is essential in managing the core symptoms and associated problems of ADHD.	of digital media usage, especially video games and social media, along with increased physical exercise, is essential in managing ADHD.	
mental health; telehealth; perinatal health	19-Apr-21	<a href="#">Perinatal mental telehealth: a Singaporean experience born in COVID-19</a>	Singapore Medical Journal	Case Report	This case report reflects on the positive use of telemedicine video consultation (TVC) for psychiatric care for a pregnant adult woman [no age or gestation information given] in Singapore. The subject struggled with mood and relationships throughout her life, but experienced a severe panic attack while pregnant, which led to her seeking psychiatric care in October 2019. The woman then canceled in-person appointments during the COVID-19 pandemic in January 2020, to avoid contracting the virus. She accepted TVC as a treatment option, and improved enough to resume work and find satisfaction with her career and pregnancy. The subject was quoted as liking being able to see the faces of her doctor and psychologist. The authors reflect that implementing telemedicine may be burdened by cost and lack of technical infrastructure and skill, especially in underdeveloped countries. In high-income countries, issues of legislation, privacy, and confidentiality may also be a barrier to TVC. Overall, however, they recommend TVC as a useful mental health service.	This case report reflects on the positive use of telemedicine video consultation (TVC) for psychiatric care for a pregnant adult woman [no age or gestation information given] in Singapore. Overall, the authors recommend TVC as a useful mental health service, but also reflect on its technical and legal complications.	Hong LF, Chua TE, Koh LPD, et al. Perinatal mental telehealth: a Singaporean experience born in COVID-19. Singapore Med J. 2021 Apr 19. doi: 10.11622/smedj.2021044.
COVID-19; creatine-kinase-MB; cardiovascular; pediatric	19-Apr-21	<a href="#">Characteristics of abnormal serum creatine kinase-MB levels in children with COVID-19</a>	World Journal of Pediatrics	Letter to the Editor	The authors conducted a retrospective study of COVID-19 pediatric patients in a Chinese hospital from January 26- March 24, 2020, to evaluate the characteristics of children with normal and elevated levels of Creatine kinase-MB (CK-MB). Of 243 pediatric patients, 103 (42.4%) had elevated CK-MB levels. The mean age of children with elevated CK-MB was 39.4 months, the mean age of children with normal CK-MB levels was 110.6 months. Children <3 years had a higher proportion with elevated CK-MB (64.1% vs. 8.6%, $p < 0.001$ ). Patients with elevated CK-MB were more likely to have gastro-intestinal symptoms (17.5% vs. 5.0%, $p = 0.0016$ ), liver damage (47.6% vs. 11.4%, $p < 0.001$ ), and pneumonia complications (67.0% vs. 40.7%, $p < 0.001$ ). Patients with elevated CK-MB also had higher numbers of white blood cells ( $p < 0.001$ ), higher serum levels of cytokines ( $p = 0.0034$ ), and higher B-lymphocyte counts ( $p < 0.001$ ). The duration of viral shedding from symptoms onset to a negative RT-PCR test via nasopharyngeal swab was shorter in children with elevated CK-MB ( $16.540 \pm 1.049$ days vs. $13.850 \pm 0.648$ days, $p = 0.0254$ ). The authors state that CK-MB is predominantly in the myocardium and is a substitute for troponins, and an elevated CK-MB might suggest myocardial damage. Cardiovascular complications of COVID-19 are related to adverse outcomes in adult COVID-19 patients, and that elevated	The authors conducted a retrospective study of COVID-19 pediatric patients in a Chinese hospital from January 26- March 24, 2020, to evaluate the characteristics of children with normal and elevated levels of Creatine kinase-MB (CK-MB). Pediatric patients with elevated CK-MB more frequently experienced impairment of multiple organs.	Wang JJ, Hu Z, Chen JY. Characteristics of abnormal serum creatine kinase-MB levels in children with COVID-19 [published online ahead of print, 2021 Apr 19]. <i>World J Pediatr.</i> 2021;1-3. doi:10.1007/s12519-020-00402-z

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					levels in children should have additional monitoring. Pediatric patients with elevated CK-MB more frequently experienced impairment of multiple organs.		
Vaccination, pregnancy, safety, immunization, Pfizer, Moderna, women's health	19-Apr-21	<a href="#">Covid-19: Pregnant women should be offered Pfizer or Moderna vaccine, says UK advisory committee</a>	British Medical Journal (BMJ)	News	In this article, the author highlights that pregnant women should be offered the Pfizer BioNTech or Moderna COVID-19 vaccine at the same time as the rest of the population, with priority based on age and clinical risk group. The Joint Committee on Vaccination and Immunisation in the United Kingdom stated that no specific safety concerns related to pregnancy have been identified for the vaccines. Real world evidence from the United States, where 90,000 pregnant women have been vaccinated mainly with the Pfizer and Moderna vaccines, has not raised any safety concerns. While severe illness from SARS-CoV-2 is uncommon in pregnant women, those who do get symptomatic infection are 2-3X more likely to give birth prematurely. As age is still the greatest risk factor for severe illness, it is recommended that women be vaccinated along with their age or clinical risk group. Mary Ramsay, head of Immunization at Public Health England, said, "The available data on the Pfizer and Moderna vaccines provide confidence that they can be offered safely to pregnant women." Pregnant women have been advised to discuss the risks and benefits with their clinician. Those planning pregnancy, in the immediate postpartum, or breastfeeding can currently be vaccinated with any vaccine, depending on their age and clinical risk group.	In this article, the author discusses the United Kingdom's Joint Committee on Vaccination and Immunisation statements regarding COVID-19 vaccination in pregnancy. No safety concerns regarding the Pfizer and Moderna vaccines have been raised, and real world data from the USA has been reassuring. They conclude that pregnant women should be vaccinated along with their age or clinical risk group, and should discuss risks and benefits with their clinician.	Mahase E. Covid-19: Pregnant women should be offered Pfizer or Moderna vaccine, says UK advisory committee. BMJ. 2021;373:n1013. Published 2021 Apr 19. doi:10.1136/bmj.n1013
Stillbirth, placenta, pathology, perfusion	19-Apr-21	<a href="#">Third Trimester Stillbirth During the SARS-CoV-2 Pandemic: Similar Rates with Increase in Placental Thrombotic Pathology</a>	Placenta	Original Research	In this study, the authors assessed whether the first surge of COVID-19 in the Northeast USA was associated with an increased risk of stillbirth in 3 Boston hospitals, and examined causes of fetal death to explore the role of COVID-19 on placental pathology. They compared 3rd trimester stillbirth rates (≥28 weeks) during the first surge of the COVID-19 pandemic (February-July 2020) to the equivalent time periods in 2019 and 2018. The rates of stillbirth per 5-month period between February 1-July 1 were similar across the 3 time periods (0.188%, 0.187%, 0.150% in 2020, 2019, 2018 respectively). There was a significant difference in gestational age between groups, with stillbirths in 2018 being diagnosed at later gestational age than in 2019 and 2020 (p<0.01). On review of placental pathology, the authors identified a trend toward an increase in thrombotic pathology with 11/12 placentas affected by either maternal vascular malperfusion or fetal vascular malperfusion in 2020, 9/12 in 2019, and 6/9 in 2018 [significance not reported]. The authors conclude that while there was no change in the rates of 3rd trimester stillbirth during the first 5 months of the COVID-19 pandemic, the increased rates of abnormal placental perfusion suggest that the effects of COVID-19 may be still unrecognized.	This study sought to assess stillbirth rates during the pandemic (February-July 2020) and causes of fetal death in Boston, USA. Compared to February-July 2018 and 2019, there was no change in the rate of stillbirths. However, investigation of the placental pathology demonstrated trends towards more thrombotic pathology. The authors conclude that while there was no change in the rates of 3rd trimester stillbirth during the first 5 months of the COVID-19 pandemic, the increased rates of abnormal placental perfusion suggest that the effects of COVID-19 may be still unrecognized.	Bunnell ME, Koenigs KJ, Roberts DJ, Goldfarb IT. Third Trimester Stillbirth During the SARS-CoV-2 Pandemic: Similar Rates with Increase in Placental Thrombotic Pathology. Placenta. 2021; doi.org/10.1016/j.placenta.2021.04.003

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Coagulation, thrombosis, prophylaxis, children, pediatrics, MIS-C, critical illness	19-Apr-21	<a href="#">Multisystem Inflammatory Syndrome in Children (MIS-C) and the Prothrombotic State: Coagulation Profiles and Rotational Thromboelastometry in a MIS-C Cohort</a>  <a href="#">[Free Access to Abstract Only]</a>	Journal of Thrombosis and Haemostasis	Original Research	In this article, the authors analyzed the prothrombotic state of pediatric patients (< 21 years of age) with a diagnosis of MIS-C (n=40) to determine if this could aid in risk stratification for thromboprophylaxis. 66 children admitted in New York between April 17-July 9, 2020 were included (mean age 9 years, range not provided); MIS-C patients met CDC criteria (n=40) and controls were those who presented with concerns for MIS-C but did not formally meet criteria (n=26). Clinical demographics, laboratory data including baseline coagulation and inflammatory markers and rotational thrombo-elastometry (ROTEM) parameters were completed within 1-4 days of admission. MIS-C patients had higher levels of inflammatory markers including D-dimer (p<0.0001), compared to controls, along with evidence of hypercoagulability on ROTEM with elevated maximum clot firmness (p<0.05). D-dimer >2144 ng/mL was predictive of ICU admission (area under the curve (AUC) 0.80, 95% CI: 0.60-0.99; p<0.01; sensitivity: 82%, specificity: 75%), and elevated maximum clot firmness (AUC 1 for >2500 ng/mL). MIS-C patients (50%) received enoxaparin thromboprophylaxis with significant improvement in their inflammatory and ROTEM parameters upon outpatient follow up. The authors conclude that ROTEM, in addition to coagulation profiles, may be helpful to tailor thromboprophylaxis in critically ill MIS-C patients.	In this article, the authors analyzed the prothrombotic state of pediatric patients with a diagnosis of MIS-C compared to controls that did not meet MIS-C criteria. MIS-C patients had higher levels of inflammatory markers including D-dimer compared to controls, along with evidence of hypercoagulability on rotational thrombo-elastometry (ROTEM) with elevated maximum clot firmness. D-dimer >2144 ng/mL was predictive of ICU admission. The authors conclude that ROTEM, in addition to coagulation profiles, may be helpful to tailor thromboprophylaxis in critically ill MIS-C patients.	Al-Ghafry M, Vagreicha A, Malik M, et al. Multisystem Inflammatory Syndrome in Children (MIS-C) and the Prothrombotic State: Coagulation Profiles and Rotational Thromboelastometry in a MIS-C Cohort. J Thromb Haemost. 2021; doi:10.1111/jth.15340
SARS-CoV-2, COVID-19, children, spike protein, RBD, receptor binding domain	19-Apr-21	<a href="#">Children develop strong and sustained cross-reactive immune responses against spike protein following SARS-CoV-2 infection</a>	medRxiv	Preprint (not peer-reviewed)	This is an analysis of SARS-CoV-2 surveillance in primary schools across the United Kingdom. Surveillance comprised 2 arms, one involving weekly swabbing of primary school students and staff for SARS-CoV-2 infection (June to mid-July 2020) and the other comprising swabbing and blood sampling taken in 3 rounds: 1-19 June, 3-23 July, and 23 November-18 December 2020. Samples for extended humoral and cellular analysis were taken in round 3. For each known SARS-CoV-2 seropositive individual, an age-matched and gender-matched participant underwent blood sampling. Blood samples were obtained from 91 children (median age 7 years, range 3-11 years) and 154 adults (median age 41 years, range 20-71). SARS-CoV-2 antibody profile was assessed to determine serological responses against spike protein, Receptor Binding Domain (RBD), N-terminal domain (NTD), and Nucleocapsid. 47% of the children and 59% of the adults were seropositive. Geometric mean antibody titers against all the 4 virus domains were higher in children, especially against the NTD and RBD, which showed 2.3-fold and 1.7-fold increases, respectively, although findings were not statistically significant. Notably, SARS-CoV-2 infection in children increased the antibody titers against all 4 human coronavirus (HCoV) subtypes. 60% of seronegative children had virus-specific T cell responses, suggesting that cross-reactive antibody and cellular responses in children may explain their excellent clinical outcomes. All children had retained humoral	The authors provide a characterization of the convalescent humoral and cellular immune response to SARS-CoV-2 in a cohort of 91 primary school-aged children compared with 154 adults, in the United Kingdom from June to December 2020. The data reveal that children generate robust, cross-reactive, and sustained immune responses after SARS-CoV-2 infection.	Dowell AC, Butler MS, Jinks E, et al. Children develop strong and sustained cross-reactive immune responses against spike protein following SARS-CoV-2 infection. BMJ. medRxiv 2021. doi: https://doi.org/10.1101/2021.04.12.21255275

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					immunity 6 months post-infection, whereas 7% of previously seropositive adults had lost humoral response. These data support that immunity against COVID-19 generated in childhood may provide longer-term protection.		
COVID-19; metabolic disorders; pregnancy	19-Apr-21	<a href="#">Severe metabolic ketoacidosis as a primary manifestation of SARS-CoV-2 infection in non-diabetic pregnancy</a>	British Medical Journal (BMJ) Case Reports	Case Report	This case report from the Netherlands details non-diabetic metabolic ketoacidosis in a 21-year-old pregnant woman (gestational age 37 week 6 days) provoked by acute starvation due to gastro-intestinal symptoms with SARS-CoV-2 infection with an otherwise healthy pregnancy. The patient presented with dyspnea, tachypnea, thoracic pain and a 2-day history of vomiting, initially attributed to COVID-19 pneumonia, to a hospital in the Netherlands on October 21, 2020. Patient was initially discharged home, and readmitted 2 days later with worsening symptoms. Differential diagnosis was expanded when arterial blood gas showed a high anion gap metabolic non-lactate acidosis without hypoxemia. Most likely, the hypermetabolic state of pregnancy, in combination with maternal starvation and increased metabolic demand due to infection, had resulted in metabolic ketoacidosis. Despite supportive treatment and rapid induction of labor, maternal deterioration and fetal distress during labor necessitated an emergency caesarean section. The patient delivered a healthy neonate at 38 weeks 3 days gestation, Apgar score 7 and 8 after 1 and 5 minutes. Postpartum, after initial improvement in metabolic acidosis, viral and bacterial pneumonia with subsequent significant respiratory compromise were successfully managed with oxygen supplementation and corticosteroids. The authors conclude this case illustrates how the metabolic demands of pregnancy can result in an uncommon presentation of COVID-19.	This case report details non-diabetic metabolic ketoacidosis in a pregnant woman provoked by acute starvation due to gastro-intestinal symptoms with SARS-CoV-2 infection with an otherwise healthy pregnancy. The authors conclude this case illustrates how the metabolic demands of pregnancy can result in an uncommon presentation of COVID-19.	van Amesfoort JE, Werter DE, Painter RC, Hermans FJR. Severe metabolic ketoacidosis as a primary manifestation of SARS-CoV-2 infection in non-diabetic pregnancy. <i>BMJ Case Rep.</i> 2021;14(4):e241745. Published 2021 Apr 19. doi:10.1136/bcr-2021-241745
COVID-19; Pediatric; PsySTART; disaster response; mental health triage; tabletop exercise	19-Apr-21	<a href="#">Addressing Pediatric Mental Health during COVID-19 and other Disasters: A National Tabletop Exercise</a>	Disaster Medicine and Public Health Preparedness	Original Article	This article details the Western Regional Alliance for Pediatric Emergency Management's integrated, interdisciplinary national tabletop exercise to familiarize mental health and non-mental health professionals with Psychological Simple Triage and Rapid Treatment (PsySTART), an evidence-based triage and incident management system used to evaluate new mental health risk impacts following exposure to traumatic events such as COVID-19 for pediatric populations in the United States. Participants were exposed to 3 practice cases that reflected a combination of "all hazards" scenarios and were asked to triage each case using PsySTART. Participants were asked to interpret results both at an individual site and aggregate county and/or state level. The exercise had a total of 115 participants with a total of 156 discrete triage encounters. A user-defined operating picture was created with graphs of aggregate mental health risk data, generating cross-regional, real-time situational awareness. 58% of participants completed the post-exercise survey, and of these, 94% reported confidence in their ability to use PsySTART in their practices. In the wake of the COVID-19 pandemic, rapid identification of pediatric	This article details a tabletop exercise to familiarize professionals with Psychological Simple Triage and Rapid Treatment (PsySTART), an evidence-based triage and incident management system used to evaluate new mental health risk impacts on pediatric populations following exposure to traumatic events such as COVID-19. The exercise offers tools to identify risk level, to understand population-level impact, and use aggregate data to ethically allocate resources.	Gupta S, Schreiber M, McGuire T, Newton C. Addressing Pediatric Mental Health during COVID-19 and other Disasters: A National Tabletop Exercise [published online ahead of print, 2021 Apr 19]. <i>Disaster Med Public Health Prep.</i> 2021;1-13. doi:10.1017/dmp.2021.122

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					mental health risk is extremely important. The authors conclude that pediatric leaders and frontline workers nationally are now better equipped with tools to identify risk level, to understand population-level impact, and use aggregate data to ethically allocate resources appropriately.		
COVID-19; pediatric; bilateral orbital inflammation; United States	19-Apr-21	<a href="#">Bilateral orbital inflammation in a 6-month old with SARS-CoV-2 infection [Free Access to Abstract Only]</a>	Orbit	Case Report	The authors describe the case of bilateral orbital inflammation in a pediatric patient with SARS-CoV-2 infection in the United States [date not specified]. The 6-month-old female presented with bilateral periorbital edema for 7 days. Her respiratory viral panel PCR was positive for the SARS-CoV-2 virus and Human Metapneumovirus. Neuroimaging demonstrated soft tissue changes within the bilateral orbits and enlargement of the bilateral lacrimal glands. Although the patient initially improved with corticosteroid treatment, she later returned with recurrent left periorbital and eyelid edema. Orbital biopsy was performed and demonstrated findings in the lacrimal gland and the adjacent fibroconnective tissues similar to those of prior lung specimens seen in SARS-CoV-2 patients. The final diagnosis was bilateral orbital inflammation with features presumed secondary to SARS-CoV-2 infection. The patient was treated with intravenous dexamethasone with clinical improvement and was discharged on a 6-week oral prednisone taper. She had no evidence of disease recurrence at a 6-month follow-up visit. This case is one of the first to document bilateral orbital inflammation as a sign of SARS-CoV-2 infection in the pediatric population with the associated pathological findings.	The authors describe the case of bilateral orbital inflammation in a pediatric patient with SARS-CoV-2 infection in the United States. The patient clinically improved after treatment with intravenous dexamethasone. This case is one of the first to document bilateral orbital inflammation as a sign of SARS-CoV-2 infection in the pediatric population with the associated pathological findings.	Dermarkarian CR, Chilakapati M, Hussein M, et al. Bilateral orbital inflammation in a 6-month old with SARS-CoV-2 infection. <i>Orbit</i> . 2021:1-4. doi:10.1080/01676830.2021.1914670.
Kawasaki disease, KD, COVID-19, children, SARS-CoV-2, myocarditis, PIMS-TS, Macrophage Activation Syndrome (MAS)	19-Apr-21	<a href="#">Children with Kawasaki disease or Kawasaki-like syndrome (MIS-C/PIMS) at the time of COVID-19: are they all the same? Case series and literature review</a>	Rheumatismo	Article	The authors present 3 cases of children with Kawasaki-like diseases in northern Italy from March to mid-May 2020, and discuss the differences between Kawasaki disease (KD) and PIMS-TS based on a literature review conducted between May and August 2020. The clinical presentation for the 3 patients included fever, diarrhea, and elevated inflammatory markers. Cases #1 and #2 were Caucasian boys (5 and 11 years old) who had myocardial impairment including left ventricular hypokinesis and reduced left ventricular ejection fraction (45%). One boy had a dilated right ventricle and inferior vena cava, while the other had a dilated left main coronary artery. Both patients initially tested negative for SARS-CoV-2 and were diagnosed with KD with myocardial involvement; however, they were later found to be positive for SARS-CoV-2 IgG. Case #3 was a 5-month-old Caucasian girl who tested negative for SARS-CoV-2 twice. Trans-thoracic echocardiography showed dilated right coronary artery and left main coronary artery, and her NT-proBNP was elevated. Her procalcitonin, C-Reactive Protein, D-dimer, and ferritin were lower than in the other 2 cases. Based on a literature review, Cases #1 and #2 fit the MIS-C definitions, while Case #3 would be characterized as classical KD phenotype, but could have been	The authors present 3 cases of Kawasaki-like diseases in northern Italy between March and mid-May 2020 and conduct a literature review to characterize Kawasaki disease (KD) versus PIMS-TS. They hypothesize that SARS-CoV-2 might trigger a classical KD phenotype or cause a systemic inflammatory response leading to a severe KD-like phenotype characterized by myocardial impairment.	Marino A, Varisco T, Quattrocchi G, et al. Children with Kawasaki disease or Kawasaki-like syndrome (MIS-C/PIMS) at the time of COVID-19: are they all the same? Case series and literature review. <i>Reumatismo</i> . 2021 Apr 19;73(1):48-53. doi: 10.4081/reumatismo.2021.1331. PMID: 33874647.

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					induced by SARS-CoV-2 exposure. The authors hypothesize that SARS-CoV-2 might trigger a systemic inflammatory response leading to a severe KD-like phenotype involving myocardial impairment (Cases #1 and #2) or might induce the classical KD phenotype (possibly Case #3).		
COVID-19; childhood vaccination; COVID-19 vaccines	19-Apr-21	<a href="#">COVID-19 herd immunity by immunisation: are children in the herd?</a>	The Lancet Infectious Diseases	Commentary	Noting the low prevalence of COVID-19 in children and the absence of epidemiological evidence implicating children in SARS-CoV-2 transmission, the author highlighted immunological, ethical, and economic conundrums that require careful examination before the deployment of any COVID-19 vaccine in children. Immunologically, they noted that current vaccines authorized for emergency use, approved, or in development did not have a safety or immunogenicity profile in children, and their use in the absence of a better understanding of SARS-CoV-2 antigen processing and immunopathogenesis could exacerbate the hyperinflammatory condition. From a public health perspective, current epidemiological reports suggest the possibility of young children having a high likelihood of being infected by household transmission, with little evidence of secondary infection of children to others in the transmission pathways. Thus vaccinating children cannot be justified since the vaccine is not targeted towards a population that is a significant reservoir for transmission. From an ethical perspective, there is a risk-benefit balance between offering the COVID-19 vaccine to children that will offer minimal to no direct benefit to the recipient, the public, or unknown medium-term and long-term risks to the recipient. Additionally, the exclusion of young children would make vaccines available for more epidemiologically susceptible subgroups. The author also discussed economic and practical considerations in deploying a new vaccine into routine childhood immunization programs.	The author highlighted the immunological, ethical, and economic conundrums that require careful examination before the deployment of any COVID-19 vaccine in children. From an ethical perspective, there is a risk-benefit balance between offering the COVID-19 vaccine to children that will offer minimal to no direct benefit to the recipient, the public, or unknown medium-term and long-term risks to the recipient. The author also discussed economic and practical considerations in deploying a new vaccine into routine childhood immunization programs.	Obaro S. COVID-19 herd immunity by immunisation: are children in the herd? [published online, 2021 Apr 19]. Lancet Infect Dis. 2021;S1473-3099(21)00212-7. doi:10.1016/S1473-3099(21)00212-7
Kawasaki disease; COVID-19; pediatric health	19-Apr-21	<a href="#">Kawasaki disease recurrence in the COVID-19 era: a systematic review of the literature</a>	Italian Journal of Pediatrics	Review	This case report and review shares the case of a 3-year-old boy in Italy with Kawasaki disease (KD) recurrence concurrent with SARS-CoV-2 infection. The patient was admitted with a fever, painful pedal edema, maculopapular exanthema, and cheilitis [no date given]. He had a previous diagnosis of recurrent KD with no coronary artery abnormalities (CAAs). 24 hours after IV immunoglobulin (IVIG) and acetylsalicylic acid were administered, the patient's symptoms were improving. He tested positive for SARS-CoV-2 and displayed slight hilar interstitial infiltrates in a chest x-ray. No CAAs were diagnosed at readmission, but the patient presented all KD diagnostic criteria. The authors reviewed 18 articles on 105 pediatric cases of recurrent KD from 1993-2019. 23.5% of patients had CAAs during the first KD episode and 55.5% did not, with no data available for the remaining percentage. 80% of those that had CAAs at first episode would go on to display CAAs at the recurrence. By comparison, only 12% of those that did not have CAAs at first would display them at recurrence. Although	This case report shares the case of a 3-year-old boy in Italy with Kawasaki disease (KD) recurrence concurrent with SARS-CoV-2 infection. The authors review the prevalence of coronary artery abnormalities in KD recurrence. Several factors led the authors to believe their patient was experiencing recurrent KD triggered by a SARS-CoV-2 infection, rather than MIS-C.	Medaglia, A.A., Siracusa, L., Gioè, C., et al. Kawasaki disease recurrence in the COVID-19 era: a systematic review of the literature. Ital J Pediatr 47, 95 (2021). <a href="https://doi.org/10.1186/s13052-021-01041-4">https://doi.org/10.1186/s13052-021-01041-4</a>

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					CAAs are typical in KD, but uncommon in MIS-C cases, the patient's young age, previous history of KD, and the quick and complete response to IVIG led the authors to believe their patient was experiencing recurrent KD triggered by a SARS-CoV-2 infection, instead of MIS-C.		
COVID-19; maternal health; placenta pathology; vertical transmission	19-Apr-21	<a href="#">Pregnant women with COVID-19: the placental involvement and consequences</a>	Journal of Molecular Histology	Review	This review examined placental involvement in fetoneonatal outcomes of COVID-19 in pregnant women. They found that SARS-CoV-2 infection in pregnant women increased their risk for hospitalization, mechanical ventilation, and ICU admission, as well as their risk of maternal mortality - especially during the 2nd and 3rd trimesters. C-section was the most common mode of delivery in this review, and obstetric outcomes of COVID-19 included: anemia, preterm premature rupture of membranes, preterm labor, and multi-organ dysfunction. Differences in immune responses can lead to more severe COVID-19 during pregnancy, and the authors recommend evaluating D-dimers and fibrinogen levels in all hospitalized pregnant women with COVID-19, to avoid adverse maternal outcomes. At this time, due to a lack of information and variations in infection duration, symptoms, and immune responses, the authors were unable to make a causal link between COVID-19 and neonatal complications. Most studies showed no evidence of vertical SARS-CoV-2 transmission. However, infection from mother to neonate may have occurred via close contact during breastfeeding. Many results displayed the importance of ACE2 for viral transmission via the placenta, and that placenta pathology following COVID-19 could negatively impact fetoneonatal outcomes. The authors recommend additional research on risk factors for vertical transmission and the effect of COVID-19 on fetoneonatal outcomes.	This review examined placental involvement in fetoneonatal outcomes of COVID-19 in pregnant women. Variation in infection duration, symptoms, and immune responses make causal links between COVID-19 and neonatal complications difficult, and the authors recommend additional research on risk factors for vertical transmission and fetoneonatal outcomes.	Aghaamoo, S., Ghods, K., Rahmanian, M. Pregnant women with COVID-19: the placental involvement and consequences. J Mol Histol (2021). <a href="https://doi.org/10.1007/s10735-021-09970-4">https://doi.org/10.1007/s10735-021-09970-4</a>
COVID-19; cesarean delivery; hemoglobin; mask-wearing; preterm birth	19-Apr-21	<a href="#">Hematologic adaptation to mask-wearing among pregnant women and obstetrical outcome during the COVID-19 pandemic</a>	International Journal of Gynaecology and Obstetrics	Original Research	This retrospective cohort study explored the association of low oxygen and high carbon dioxide concentrations inhaled when wearing a mask, and hematologic and obstetrical outcomes of pregnant women in Israel. Characteristics and outcomes of patients admitted to an obstetrical emergency unit for delivery between March 21, 2011-April 18, 2020 (n=88,973), April 19-June 27, 2019 (n=1,890), and April 19-June 27, 2020 (n=1,838) were analyzed. Mean hemoglobin levels (12.15±1.1 vs. 11.96±1.2, p<0.001) and the proportion of patients with hemoglobin > 13g/dL (21.5% vs. 16%, OR: 1.43, 95% CI: 1.28-1.61, p<0.001), and fibrinogen levels (472±103.6 vs. 448±85.1 mg/dL, p<0.001) were higher during the COVID-19 pandemic. Rates of C-section (26.7% vs. 24.4%, OR: 1.13, 95% CI: 1.02-1.25, p=0.022), postpartum hemorrhage (4.1% vs. 2.8%, OR: 1.5, 95% CI: 1.2-1.8, p=0.01) and composite bleeding (5.1% vs. 3.8%, OR: 1.3, 95% CI: 1.07-1.60, p=0.07) were higher during the COVID-19 pandemic. Mean birthweight was higher during the COVID-19 pandemic (3,232 vs. 3,200 g, p=0.009), with fewer neonatal ICU admissions (2.8% vs.	This retrospective cohort study explored the association of low oxygen and high carbon dioxide concentrations inhaled when wearing a mask, and hematologic and obstetrical outcomes of pregnant women in Israel. The authors state that their results show that pregnant women experienced significant hematologic changes during the COVID-19 pandemic, which they argue may be due to mask-wearing regulations.	Friedrich L, Levin G, Maixner N, et al. Hematologic adaptation to mask-wearing among pregnant women and obstetrical outcome during the COVID-19 pandemic. Int J Gynaecol Obstet. 2021 Apr 19. doi: 10.1002/ijgo.13715.

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					3.7%, OR: 0.75, 95% CI: 0.56-0.99, p=0.046). The authors state that their results show that pregnant women experienced significant hematologic changes during the COVID-19 pandemic, which they argue may be due to mask-wearing regulations. They ask that further research be conducted to understand the long-term effects of masks among high-risk populations.		
COVID-19; neonate; perinatal care; practice guidelines; transmission	19-Apr-21	<a href="#">Guidance for the clinical management of infants born to mothers with suspected/confirmed COVID-19 in Singapore</a>	Singapore Medical Journal	Guide	This guidance was created by neonatal care practitioners from 4 hospitals in Singapore, for clinicians working with neonates born to mothers with confirmed or suspected COVID-19 based on evidence available as of July 31, 2020. They advise communication between the obstetrician and neonatologist and expectant parents before delivery, dedicated delivery facilities with isolation capabilities, care for mothers with COVID-19 in single rooms, and appropriate infection control procedures during breastfeeding. In addition, rooming-in of infant and mother should be decided on a case-by-case basis, with de-isolation of infants based on virologic testing; visiting to both should be limited. Transfer of neonates between hospitals should only be performed when clinical care needs cannot be met at the referring hospital. Finally, institutions need to ensure adequate staff training for specific neonatal infection prevention and control situations. The authors conclude by noting that their guidance may change as new evidence on COVID-19 emerges.	This guidance was created by neonatal care practitioners from 4 hospitals in Singapore, for clinicians working with neonates born to mothers with confirmed or suspected COVID-19 based on evidence available as of July 31, 2020. They provide guidance on communication with patients, care of mother and infant, inter-hospital transfer, staff training, and more.	Yeo KT, Biswas A, Ho SKY, et al. Guidance for the clinical management of infants born to mothers with suspected/confirmed COVID-19 in Singapore. Singapore Med J. 2021 Apr 19. doi: 10.11622/smedj.2021045.
SARS-CoV-2; COVID-19; Sex Hormones; Estradiol (E2); Progesterone	19-Apr-21	<a href="#">Sex Steroids and COVID-19 Mortality in Women</a>	Trends in Endocrinology and Metabolism	Letter	This letter sought to hypothesize the underlying pathophysiological mechanisms contributing to the increased COVID-19 severity and increased mortality in men compared to women as this area remains incompletely understood. The authors noted that many have suggested that estrogens may protect women and has led to the misguided advocacy for treating COVID-19 patients with estrogens without biochemical or physiological data to support this theory. Data on COVID-19 deaths among men and women are inconsistent among countries throughout the world. Thus, there may not be credible evidence to support that sex hormones are fully responsible for the disparity in mortality among men and women. It is more plausible that the role of genetics and inborn errors of immunity contributes to the mechanism as COVID-19 disease severity is associated with impaired interferon (IFN) type-I response with no IFN-β and low IFN-α production and activity. Patients with impaired type-I IFN response exhibit high blood viral load and excessive inflammatory response which promotes increased risk of mortality. It was also suggested that inborn errors of type-I IFNs and neutralizing autoantibodies (auto-Abs) against type-I IFNs possibly underlie the greater variability between the sexes as more men exhibited inborn errors of immunity than women. The authors emphasize that caution should be exercised regarding the claims that sex steroid hormones	In this letter, the authors hypothesize the underlying pathophysiological mechanisms contributing to the increased COVID-19 severity and mortality in men compared to women as this area remains incompletely understood. Many have suggested that estrogens may protect women, but there is a lack of credible evidence that sex hormones are fully responsible for disparities in mortality. It is more plausible that the role of genetics and inborn errors of immunity contributes to the greater variability between the sexes.	Traish AM. Sex Steroids and COVID-19 Mortality in Women [published online ahead of print, 2021 Apr 19]. Trends Endocrinol Metab. 2021; S1043-2760(21)00078-3. doi:10.1016/j.tem.2021.04.006

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
					account for the gender disparity in COVID-19 infection severity and mortality.		
Pregnancy, postpartum, ICU, ARDS, labor, ECMO	19-Apr-21	<a href="#">Peripartum Covid-19 Pneumonia with Severe ARDS - A Case Report</a>  <a href="#">[Free Access to Abstract Only]</a>	Zeitschrift für Geburtshilfe und Neonatologie	Case Report	In this case report, the authors present a pregnant woman with SARS-CoV-2 at term. A 38 year-old presented at 38+1 gestational weeks to a clinic in Germany with fever and cough. Laboratory results revealed elevated neutrophils, C-reactive protein (CRP), and lactate dehydrogenase (LDH). Antibiotic treatment was initiated with Sultamicillin. Influenza A/B and SARS-CoV-2 screenings were conducted and the patient went into labor. During the second stage of labor, maternal oxygen saturation was 92%. Due to failure to progress, the newborn was delivered via ventouse (vacuum). Postpartum, the mother was isolated with symptomatic and antibiotic treatment as well as thromboprophylaxis (enoxaparin 4,000 IE daily). Maternal SARS-CoV-2 returned positive. Neonatal SARS-CoV-2 was negative. The patient pumped breast milk, which was subsequently pasteurized. SARS-CoV-2 testing of the breast milk did not detect any virus. 8 days postpartum the mother's condition worsened rapidly and she developed acute respiratory distress syndrome requiring ICU admission, endotracheal intubation and ventilation. Echocardiogram showed slight pericardial effusion and chest radiograph showed consolidation. With refractory hypoxia, the interdisciplinary team initiated veno-venous extracorporeal membrane oxygenation (VV ECMO). Prone was performed for 7 days and after 71 days in the ICU, the patient was successfully transferred to a rehabilitation unit. The authors conclude that close maternal and fetal surveillance during labor, delivery, and the postpartum period is necessary for optimal patient care in peripartum COVID-19 cases.	In this case report, the authors present a pregnant woman with SARS-CoV-2 at term in Germany. The mother was isolated from the neonate after vacuum delivery and SARS-CoV-2 testing of pumped breast milk and the neonate were both negative. 8 days postpartum, the mother developed acute respiratory distress syndrome requiring ICU admission, intubation, and ultimately ECMO. After 71 days in the ICU, she was successfully transferred to rehabilitation. The authors conclude that close maternal and fetal surveillance during labor, delivery, and the postpartum period is necessary for optimal patient care in peripartum COVID-19 cases.	Maier JT, Zickler D, Metz M, et al. Peripartum Covid-19 Pneumonia with Severe ARDS - A Case Report. Z Geburtshilfe Neonatol. 2021;225(2):183-187. doi:10.1055/a-1365-9262
SARS-CoV-2 infection; childcare facilities; transmission; prevalence	18-Apr-21	<a href="#">Prevalence and Transmission of SARS-CoV-2 in Childcare Facilities: A Longitudinal Study</a>	medRxiv	Preprint (not peer-reviewed)	In this longitudinal study, the authors aim to investigate the prevalence, transmission and spread of SARS-CoV-2 within childcare facilities in Germany during low- and high-prevalence periods. Between July 2020 and January 2021, 318 children (between 12 mos - 6 years), 299 parents, and 233 childcare workers in childcare facilities were enrolled. The median age of the children was 4 years (IQR 2-5), their parents, 37 years (IQR 34-40) and childcare workers, 39 years (IQR 32-49). In all adults, the seroprevalence of SARS-CoV-2 antibodies was assessed up to 4 times during the study period, while in children, stool viral shedding of SARS-CoV-2 was analyzed every 2-4 weeks. During the low-prevalence period (July - mid-November, 2020), 2 study participants, one childcare worker (1/154 – 0.7%) and one parent (1/196 – 0.5%) became seropositive. Both participants reported a known PCR-confirmed infection and did not attend the same childcare facility. Also during this period, there were 2 positive stool samples detected resulting in a prevalence of 2 out of 232 (0.9%) SARS-CoV-2 positive children. At the end of January 2021, after the second wave of the pandemic, 25 of 236 (10.6%) parents	The authors investigated the prevalence, transmission and spread of SARS-CoV-2 within childcare facilities in Germany during low- and high-prevalence periods. The authors suggest that the few connected cases strengthen the hypothesis that childcare facilities are not a major source of uncontrolled clusters and that adults seem to transmit SARS-CoV-2 more frequently than children.	Haag L, Blankenburg J, Unrath M, et al. Prevalence and Transmission of SARS-CoV-2 in Childcare Facilities: A Longitudinal Study. MedRxiv. 2021. doi:10.1101/2021.04.16.21255616

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					and 23 of 187 (12.3%) childcare workers were seropositive (p=0.64). Additionally, 15 out of 222 children (6.8%) had at least one SARS-CoV-2 positive stool sample; cases occurred in 8 different institutions, with a possible epidemiological link between a maximum of 3 children. The increasing SARS-CoV-2 cases during the second wave in the general population mirrored the study population. The authors suggest that the few connected cases strengthen the hypothesis that childcare facilities are not a major source of uncontrolled clusters and that adults seem to transmit SARS-CoV-2 more frequently than children.		
SARS-CoV-2, COVID-19, Saliva sampling, Primary school, Childcare Facilities, rRT-PCR	18-Apr-21	<a href="#">Feasibility and accuracy of a novel saliva sampling method for large-scale SARS-CoV-2 screening in children &lt; 12 years of age</a>	medRxiv	Preprint (not peer-reviewed)	This study aimed to establish a practical, safe, and easy-to-use system for saliva collection and subsequent rRT-PCR testing for SARS-CoV-2 for children aged 3 years and older. Between June and November 2020, the authors conducted a weekly SARS-CoV-2 sentinel study in primary schools, kindergartens, and childcare facilities in Munich, Germany. A total of 3123 concurrent oropharyngeal and saliva samples were processed for SARS-CoV-2 testing in both children (n=2104) and staff (n=1019). Saliva sampling was optimized, and a novel sampling system was introduced and assessed for feasibility, the Salivette® system. Also, 50 individuals, both adults, and children, known to be infected with SARS-CoV-2 were recruited and consented into a positive control cohort. The results showed that a mean of 1.18 ml of saliva could be obtained with the Salivette® sampling system from children across all age groups. Using 1293 concurrent oropharyngeal swabs from children and staff, and participants of a positive control cohort as a reference, the Salivette testing method could be assigned an overall specificity of 99.8% and sensitivity of 95.1%. Comparative analysis of Ct-values derived from saliva vs. oropharyngeal swabs demonstrated a significant difference (p =0.032). Furthermore, Bland-Altman graphical comparison showed an agreement between the two sampling methods, with saliva-derived Ct-values being systematically higher than Ct-values derived from oropharyngeal swabs (mean difference 4.23, 95% CI: 2.48-6.00). In conclusion, the Salivette system is an easy-to-use, safe and feasible collection method for saliva sampling and subsequent SARS-CoV-2 testing in children ages 3 years and older. The high sensitivity and specificity make this testing approach very reliable and a much more pleasant alternative to oropharyngeal swab-based testing, particularly in children.	This study aimed to establish a practical, safe, and easy-to-use system for saliva collection and subsequent rRT-PCR testing for SARS-CoV-2 for children aged 3 years and older. Findings showed that the Salivette testing method could be assigned an overall specificity of 99.8% and sensitivity of 95.1%. The Salivette system was found to be an easy-to-use, safe and feasible collection method for saliva sampling and subsequent SARS-CoV-2 testing in children ages 3 years and older.	Hoch M, Vogel S, Eberle U, et al. Feasibility and accuracy of a novel saliva sampling method for large-scale SARS-CoV-2 screening in children < 12 years of age. . 2021. doi: 10.1101/2021.04.17.21255651

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
COVID-19; Childhood cancer; SARS-CoV-2; pandemics	18-Apr-21	<a href="#">Impact of COVID-19 on the Children with Cancer in 6 Pediatric Oncology Units (POU's) of Pakistan-a Multi-Center Study</a>  <a href="#">[Free Access to Abstract Only]</a>	Cancer Investigation	Research Article	This study evaluated the impact of COVID-19 on 6 Pediatric Oncology Units in Pakistan. Data from 1 April-30 June 2019 and 1 April-30 June 2020 were reviewed to compare patient volume, treatment abandonment rates, and delays in treatment. 634 total registered cases were reviewed: 379 from 2019 and 255 from 2020, representing a 33% decrease in patients seen during the pandemic (p=0.001). Differences in treatment abandonment rates were not significantly different (45 in 2019 vs 32 in 2020). 59 SARS-CoV-2 positive cases were identified in the 2020 cohort; of these, 24 (41%) were admitted, 4 (6.7%) were referred, 27 (45.7%) were advised to isolate at home, and 4 (6.7%) discharged against medical advice. The 24 who were admitted had chemotherapy treatment or surgeries delayed; the authors warn that delays like these may lead to increased relapses and treatment failures. Consistent with recent evidence that pediatric cancer patients are not at increased risk of severe COVID-19 when compared to the wider pediatric population, this study shows that COVID-19 may have a mild course even in children receiving anticancer chemotherapy. However, delays in diagnosis and treatment can have lasting health effects on this population.	This study evaluated the impact of COVID-19 on 6 Pediatric Oncology Units in Pakistan. Results showed a 33% reduction in patient volume in 2020 compared to 2019, a non-significant difference in treatment abandonment rates, and evidence of delayed treatment in cases with confirmed SARS-CoV-2 infection. The authors conclude that pediatric cancer patients are not at increased risk of severe COVID-19, but may be impacted by delays in diagnosis and treatment.	Raza MR, Maqsood S, Rana ZA, et al. Impact of COVID-19 on the Children with Cancer in 6 Pediatric Oncology Units (POU's) of Pakistan-a Multi-Center Study [published online, 2021 Apr 18]. Cancer Invest. 2021;1-11. doi:10.1080/07357907.2021.1916027
Maternal morbidity and mortality; Social justice; COVID-19 pandemic; Racial disparities; Medical comorbidities	18-Apr-21	<a href="#">Pregnant in the United States in the COVID-19 pandemic: A collision of crises we cannot ignore</a>	Journal of the National Medical Association	Commentary	This commentary aimed to describe the collision of the crises of maternal health and the COVID-19 pandemic both disproportionately affecting women of color and Indigenous communities. The pandemic is a call for social justice as the United States has already experienced a steady 20-year rise in maternal morbidity and mortality with pregnant women today facing a 50% higher risk of mortality than their mothers. Most vulnerable are women of color, Black and American Indian/Alaska Native women, who have experienced longstanding disparities in access to quality prenatal care and may also begin pregnancy with co-morbid complications such as hypertension, diabetes, and obesity. Race-related health disparities lead to disproportionately higher rates of COVID-19 cases and mortality in Indigenous, Black, Latinx, and other communities. This can be attributed to underlying social, structural, and environmental determinants of health including resource inequities, inadequate housing, and occupational and environmental hazards result in greater exposure to and less protection from COVID-19. Compared to those who gave birth without COVID-19, infected women experienced a considerably higher risk of in-hospital death, thrombotic events, preterm birth, and preeclampsia, with the highest risk experienced by Black and Latinx women. The authors emphasized our opportunity to consider the health not only of SARS-CoV-2-positive pregnant women, but all pregnant women to tackle intransigent health disparities experienced by underrepresented racial and ethnic populations in the United States. Strategies should focus on the high-risk status conferred by pregnancy that encompasses social	This commentary describes the collision of the crises of maternal health and the COVID-19 pandemic both disproportionately affecting women of color and Indigenous communities. The authors emphasized our opportunity to implement strategies that consider the health not only of SARS-CoV-2-positive pregnant women, but all pregnant women to tackle intransigent health disparities experienced by underrepresented racial and ethnic populations in the United States.	Stratton P, Gorodetsky E, Clayton J. Pregnant in the United States in the COVID-19 pandemic: A collision of crises we cannot ignore [published online ahead of print, 2021 Apr 18]. J Natl Med Assoc. 2021; S0027-9684(21)00055-9. doi:10.1016/j.jnma.2021.03.008

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					determinants of health, addresses structural racism, and seeks to interrupt chronic disease onset and progression within a life-course perspective.		
Pregnancy, endocrinology, obesity, hyperglycemia, diabetes, maternal outcomes	18-Apr-21	<a href="#">A snapshot of the prevalence of endocrine disorders in pregnancies complicated by COVID-19: A narrative review with meta-analysis</a>  <a href="#">[Free Access to Abstract Only]</a>	International Journal of Gynaecology and Obstetrics	Review	In this narrative review with meta-analysis, the authors investigated the prevalence of endocrine disorders in pregnant women positive for SARS-CoV-2 and the impact on pregnancy outcomes. PubMed, Embase, medRxiv and Cochrane databases were searched from February-July, 2020 for articles describing endocrine disorders in pregnancies with and without SARS-CoV-2; meta-analysis was then performed of prevalence using random-effect models and estimated relative risk of maternal outcomes relative to presence of endocrine disorders. Articles included (n=141) were divided in three datasets: individual (119 articles, 356 women), case series (17 articles, 1064 women) and national registries (7 articles, 10,178 women). The most common endocrine disorder was obesity, with prevalence ranging from 16%-46%, followed by hyperglycemia in pregnancy (HIP), with prevalence ranging from 8%-12%. In dataset 1, HIP and obesity were risk factors for severe disease in crude and age adjusted models, although not for ICU admission (p=0.003 and p<0.001, respectively). HIP was not significant when adjusted for obesity. In data from 2 national registries, relative risk of dying was 5.62 (95% CI 0.30-105.95) in women with diabetes and 2.26 (95% CI 1.03-4.96) in those with obesity. The authors conclude that presence of obesity or HIP was associated with unfavorable maternal outcomes from SARS-CoV-2.	In this narrative review with meta-analysis, the authors investigated the prevalence of endocrine disorders in pregnant women positive for SARS-CoV-2 and the impact on pregnancy outcomes. HIP and obesity were risk factors for severe disease in crude and age adjusted models, although not for ICU admission. In data from 2 national registries, relative risk of dying was 5.62 (95% CI 0.30-105.95) in women with diabetes and 2.26 (95% CI 1.03-4.96) in those with obesity. The authors conclude that presence of obesity or HIP was associated with unfavorable maternal outcomes from SARS-CoV-2.	Reichelt AJ, Hirakata VN, Genro VK, Oppermann MLR. A snapshot of the prevalence of endocrine disorders in pregnancies complicated by COVID-19: A narrative review with meta-analysis. Int J Gynaecol Obstet. 2021; doi:10.1002/ijgo.13714
Substance use, pregnancy, maternal health, stress, mental health, coping	17-Apr-21	<a href="#">Substance use and mental health in pregnant women during the COVID-19 pandemic</a>	Journal of Reproductive and Infant Psychology	Original Research	In this article, the authors examined the use of substances as a coping mechanism during the COVID-19 pandemic among pregnant women in the USA and evaluated the relationships between maternal psychological distress and substance use. Self-reported repeated measures from 83 pregnant women were collected online at two timepoints in April and May 2020. Women retrospectively reported their mental/emotional health before the pandemic, as well as depression, stress, and substance use as a result of the pandemic at both time points. Linear regression measured cross-sectional and longitudinal associations between mental health and substance use. Pre-COVID-19 reports of poorer mental/emotional health (b = 0.46) were significantly (p < 0.05) associated with greater numbers of substances used to cope with the pandemic. Elevated stress (b = 0.35) and depressive symptoms (b = 0.27) and poorer mental/emotional health (b = 0.14) in April 2020 were also significantly related to higher numbers of substances used in May (p < 0.05). The authors conclude that pregnant women's self-report of mental/emotional health prior to the COVID-19 pandemic was predictive of the number of substances they used to cope during the pandemic.	In this article, the authors assessed substance use as a coping mechanism during the COVID-19 pandemic among 83 pregnant women in the USA. Pre-COVID-19 reports of poorer mental/emotional health were significantly associated with greater numbers of substances used to cope with the pandemic. Elevated stress and depressive symptoms and poorer mental/emotional health in April 2020 were also significantly related to higher numbers of substances used in May. The authors conclude that pregnant women's self-report of mental/emotional health prior to the COVID-19	Smith CL, Waters SF, Spellacy D, et al. Substance use and mental health in pregnant women during the COVID-19 pandemic. J Reprod Infant Psychol. 2021;1-14. doi:10.1080/02646838.2021.1916815

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						pandemic was predictive of the number of substances they used to cope during the pandemic.	
MIS-C; lymphopenia; thrombocytopenia; Argentina	17-Apr-21	<a href="#">Pediatric Inflammatory Multisystem Syndrome Associated with SARS-CoV-2: A Retrospective Cohort Study From Argentina</a>	Indian Pediatrics	Article	This retrospective cohort study in Argentina aimed to evaluate the differential characteristics of MIS-C. Of 533 children (<18 years) seen between 19 April and 31 October 2020, 25 (4.7%) patients met WHO criteria for MIS-C and 75 temporally related COVID-19 patients were included as controls. Median age of cases was 104 months (IQR 61-126 months) versus 78 months (IQR 18-139 months) in the control group [ranges not reported]. Results showed that age $\geq 2$ years (OR 24.7; 95% CI 1.03 -592.4; P=0.048), lymphopenia (OR 9.03, 95%CI 2.05-39.7; P=0.004), and platelet count $<150 \times 10^9/L$ (OR 11.7; 95% CI 1.88-75.22; P=0.009) were significantly associated with MIS-C. Presence of underlying disease seemed to reduce the risk of MIS-C (OR 0.06; 95% CI 0.01-0.3). At onset PCR for SARS-CoV-2 was positive in 15 MIS-C patients (60%) and in all of those in the control group. Median (IQR) length of hospital stay was 10 days (9-12) in cases versus 8 (4-11) days in controls (P=0.006). In this study all MIS-C patients were $\geq 2$ years, which is in agreement with previous findings that MIS-C does not affect infants $<1$ year. The authors conclude that MIS-C is more common in patients $\geq 2$ years and in those with lymphopenia or thrombocytopenia. Although underlying disease was associated with reduced risk of MIS-C, this is in contrast with previous findings and the authors note this may be an incidental association.	This retrospective cohort study in Argentina compared epidemiological, virological, and clinical data between 25 MIS-C cases and 75 controls (temporally related COVID-19 patients). The authors conclude that MIS-C is more common in patients $\geq 2$ years and in those with lymphopenia or thrombocytopenia.	Rosanova MT, Perez G, Katsicas MM, et al. Pediatric Inflammatory Multisystem Syndrome Associated with SARS-CoV-2: A Retrospective Cohort Study From Argentina [published online, 2021 Apr 17]. Indian Pediatr. 2021;S097475591600313.
Brain magnetic resonance; Cardiovascular magnetic resonance; Echocardiography; MIS-C; multisystem inflammatory syndrome in children	17-Apr-21	<a href="#">The importance of heart and brain imaging in children and adolescents with Multisystem Inflammatory Syndrome in Children (MIS-C)</a>	Rheumatology International	Review	This review presented cardiovascular and brain involvement in patients with potential MIS-C, with imaging recommendations for early detection of said involvement, from original research papers and review articles up to December 2020. Cardiovascular complications were the most common complications in MIS-C cases, with shock, cardiac arrhythmias, pericardial effusion, and coronary artery dilation the most prevalent manifestations. Compared to adults, mortality from these complications was uncommon. The authors recommend echocardiography to assess the severity of cardiovascular involvement, although cardiovascular magnetic resonance or CT coronary angiography should be considered for adolescents, as a noninvasive technique without radiation. Severe encephalopathy is rarely reported in MIS-C patients. However, reversible splenic lesion syndrome with mild encephalitis/encephalopathy has been associated with various viral infections. A recent small study found changes in the splenium of the corpus callosum in all MIS-C patients with neurologic symptoms (n=4). The authors recommend brain MRI to evaluate neurologic impact and to guide treatment during recovery from MIS-C. They conclude that even though MIS-C is	This review presented cardiovascular and brain involvement in patients with potential MIS-C, with imaging recommendations for early detection of said involvement, from original research papers and review articles up to December 2020. The authors conclude that even though MIS-C is rare, its involvement of the heart and brain means that early detection and action are critical.	Mavrogeni SI, Kolovou G, Tsimpiris V, et al. The importance of heart and brain imaging in children and adolescents with Multisystem Inflammatory Syndrome in Children (MIS-C). Rheumatol Int. 2021 Apr 17:1–8. doi: 10.1007/s00296-021-04845-z.

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
					rare, its involvement of the heart and brain means that early detection and action are critical.		
Coronavirus disease 2019, COVID-19, SARS-CoV-2, Influenza A, Pediatrics, Retrospective Study	17-Apr-21	<a href="#">Comparison of Clinical Features on Admission between Coronavirus Disease 2019 and Influenza A Among Children: A Retrospective Study in China</a>	BioMed Central (BMC) Infectious Diseases	Research Article	This retrospective study aimed to examine whether SARS-CoV-2 and Influenza A differed in their clinical characteristics in children. The study included 71 age-matched pediatric patient pairs that were diagnosed between September 2019 and February 2020, in China. The most common symptoms on admission for both types of infection included fever, cough, nasal congestion, and nausea/vomiting, although all symptoms occurred less often in SARS-CoV-2 infections [odds and p-values varied by symptom]. The patients with Influenza A were more likely to have lower than normal levels of lymphocyte count and percentage ( $p < 0.01$ ), and to have higher than normal levels of activated partial thromboplastic time, prothrombin time, serum C-reactive protein, and serum procalcitonin ( $p < 0.01$ ). Compared to patients with SARS-CoV-2, those with Influenza A infections had lower odds of having abnormally low neutrophil count (OR 0.11, 95% CI 0.02–0.45, $p < 0.01$ ) and percentage (OR 0.00, 95% CI 0.00–0.85, $p = 0.03$ ). The study concluded that Influenza A causes more symptoms than SARS-CoV-2 in children, and that Influenza A infections might be more severe on admission compared to SARS-CoV-2 infections in children.	This retrospective study aimed to examine whether SARS-CoV-2 and Influenza A differed in their clinical characteristics in a group of children in China. The most common symptoms on admission for both infections included fever, cough, nasal congestion, and nausea/vomiting, although all symptoms occurred less often in SARS-CoV-2 infections. The study concluded that Influenza A causes more symptoms than SARS-CoV-2 in children, and that Influenza A infections might be more severe on admission compared to SARS-CoV-2 infections in children.	Liang F, Wang X, Shao J, et al. Comparison of clinical features on admission between coronavirus disease 2019 and influenza a among children: a retrospective study in China. BMC Infect Dis. 2021;21(1):365. Published 2021 Apr 17. doi:10.1186/s12879-021-06037-3
Breastfeeding; COVID-19; Coronavirus; Home confinement; Lockdown; Mother-infant dyad; Neonatal; Pandemic	17-Apr-21	<a href="#">Impact of COVID-19 pandemic lockdown on exclusive breastfeeding in non-infected mothers</a>	International Breastfeeding Journal	Research Article	The COVID-19 pandemic has posed several challenges to the provision of newborn nutrition and care interventions including maternal support, breastfeeding and family participatory care. This study aimed to examine the impact of COVID-19 lockdowns on exclusive breastfeeding in non-infected mothers. 204 mother-infant dyads at a single site in Italy were enrolled during lockdown (9 March to 8 May 2020) and compared to previously studied 306 mother-infant dyads admitted in 2018. To reduce the possible effect of confounding factors on exclusive breastfeeding, a 1:1 matching was performed that paired 173 mother-infant dyads (mean age $33 \pm 5$ years; ranges not reported). Feeding modality was collected at discharge, 30, and 90 days of life. Significantly fewer infants were exclusively breastfed during lockdown at discharge (69.4% vs 97.7%; $p < 0.001$ ), at 30 days (54.3% vs 76.3%; $p < 0.001$ ), and at 90 days (31.8% vs 70.5%; $p < 0.001$ ). The proportion of breastfeeding remaining exclusive from discharge to 30-day was similar between groups (about 80%), but was lower in the lockdown group than in the control cohort (58.5% vs 92.4%, $p < 0.001$ ) from 30- to 90-days. The authors argue that differences between study groups in exclusive breastfeeding confirm that the hospital stay period is crucial in continuing exclusive breastfeeding at least for the first 30 days, but no longer relevant at 90 days of life.	This study examined the impact of COVID-19 lockdowns on exclusive breastfeeding in non-infected mothers by comparing exclusive breastfeeding rates among mother-infant dyads in Italy during lockdown compared to a cohort from 2018. Results showed significantly fewer infants were exclusively breastfed during lockdown at discharge, 30 days, and at 90 days of life. The authors conclude that the hospital stay period is crucial in continuing exclusive breastfeeding at least for the first 30 days of life.	Latorre G, Martinelli D, Guida P, Masi E, De Benedictis R, Maggio L. Impact of COVID-19 pandemic lockdown on exclusive breastfeeding in non-infected mothers. Int Breastfeed J. 2021;16(1):36. Published 2021 Apr 17. doi:10.1186/s13006-021-00382-4

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
Children, disease severity, prognostics, immunology, pediatrics	17-Apr-21	<a href="#">Early immune responses and prognostic factors in children with COVID-19: a single-center retrospective analysis</a>	BioMed Central (BMC) Pediatrics	Original Research	This retrospective study investigated immune characteristics of early SARS-CoV-2 infection in children and prognostic factors for early identification of critical COVID-19. 121 children admitted to Wuhan Children’s Hospital, China from January 25- February 20, 2020 with SARS-CoV-2 were included [median age 6 years (range 0.13–15.0 years)]. Peripheral blood lymphocyte subset counts, T cell-derived cytokine concentrations, inflammatory factor concentrations, and routine blood counts were analyzed at initial presentation. 101 children had asymptomatic or mild infection (Group 1: 83.5%), 12 had severe (Group 2: 9.9%), and 8 had critical (Group 3: 6.6%) disease. There was a significant decrease from groups I to III in CD3+CD4+ Th cell ( $p < 0.001$ ), CD3+CD8+ Tc cell ( $p < 0.001$ ), and CD16+CD56+ NK cell ( $p = 0.001$ ) counts. Groups II and III had significantly lower CD19+ B cell counts than group I ( $p = 0.026$ ). IL-6, IL-10, IFN- $\gamma$ , serum amyloid A, and procalcitonin levels increased with increasing disease severity ( $p < 0.001$ ). Hemoglobin concentration ( $p < 0.001$ ), red blood cell ( $p < 0.001$ ) and eosinophil counts ( $p = 0.008$ ) decreased with increasing disease severity. T lymphocytes, Th cells, Tc cells, IL-6, IL-10, red blood cells, and hemoglobin all contributed significantly to the identification of critical cases based on area under the ROC curve (AUC) calculations with a threshold of $> 0.85$ . The authors conclude that these 7 indices are helpful for early diagnosis of COVID-19 severity in children.	The authors investigated immune characteristics of early SARS-CoV-2 infection in children and prognostic factors for early identification of critical COVID-19 in Wuhan, China. T lymphocytes, Th cells, Tc cells, IL-6, IL-10, red blood cells, and hemoglobin values all contributed significantly to the identification of critical cases. The authors conclude that these 7 indices are helpful for early diagnosis of COVID-19 severity in children.	Lu W, Yang L, Li X, et al. Early immune responses and prognostic factors in children with COVID-19: a single-center retrospective analysis. BMC Pediatr. 2021;21(1):181. doi:10.1186/s12887-021-02561-y
COVID-19; pediatric; characteristics	16-Apr-21	<a href="#">Clinical, laboratory, and imaging features of pediatric COVID-19: A systematic review and meta-analysis</a>	Medicine	Systematic Review	This meta-analysis described the clinical, laboratory, and imaging characteristics of SARS-CoV-2-infected children based on published data of pediatric COVID-19 cases. A literature search was conducted on PubMed, Embase, Web of Sciences, Science Direct, and Google Scholar for articles published until December 14, 2020, that described the clinical, laboratory, and imaging features of children with COVID-19. Clinical data from 2874 children with COVID-19 from 37 articles were included for quantitative analyses. The majority of the selected studies were from China ( $n=27$ ); other countries included were the United States, Turkey, Italy, Korea, Jordan, Iran, Morocco, and Kuwait. Fever (48.5%, 95% CI 41.4-55.6%) and cough (40.6%, 95% CI 33.9-47.5%) were the most common symptoms. Asymptomatic infection and severe cases accounted for 27.7% (95% CI 19.736-4%) and 1.1% (95% CI 0-2.9%) of patients. Laboratory tests showed that 5.5% (95% CI 2.8-8.9%) of patients had lymphopenia. The pooled prevalence of leukopenia was 7.3% (95% CI 3.4-12.2%), and the C-reactive protein level was high in 14% (95% CI 6.8-22.8%) of patients. Chest CT showed unilateral lesions in 29.4% (95% CI 24.8-34.3%), bilateral lesions in 24.7% (95% CI 18.2-31.6%), ground-glass opacity in 32.9% (95% CI 25.3-40.9%), and normal findings in approximately 36% (95% CI 27.7-44.7%) of patients. The findings indicate that children with COVID-19 have relatively mild disease. Data from more regions are	The authors described the clinical, laboratory, and imaging characteristics of SARS-CoV-2-infected children based on published data of pediatric COVID-19 cases from multiple countries. The findings indicate that children with COVID-19 have relatively mild disease. Data from more regions are needed to determine the prevention and treatment strategies for children with COVID-19.	Qi K, Zeng W, Ye M, et al. Clinical, laboratory, and imaging features of pediatric COVID-19: A systematic review and meta-analysis. Medicine (Baltimore). 2021;100(15):e25230. doi:10.1097/MD.00000000000025230.

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					needed to determine the prevention and treatment strategies for children with COVID-19.		
Pediatrics, children, attendance, lockdown, fear	16-Apr-21	<a href="#">COVID-19 pandemic and families' utilization of well-child clinics and pediatric practices attendance in Germany</a>	BioMed Central (BMC) Research Notes	Original Research	To assess whether pediatric attendance in health care programs was affected during the COVID-19-pandemic, the authors compared the number of weekly visits to 78 German pediatric institutions in 2019 to those in 2020 using data from the CrescNet database, a representative database of more than 430 pediatric practices in Germany. Comparing the visit numbers in 2019 and 2020, a paired t-test revealed no significant change during the first 10 weeks of 2020 (p = 0.7). Starting in mid-March 2020 (week 10), documented visits to pediatric practices steadily decreased with a striking dip in numbers in April 2020 during the first wave of COVID-19 in Germany. The mean number of visits per week in April 2020 was significantly lower than during the same period in 2019 (p = 0.005). There was also a continuously (non-significant) lower number of visits during May and the first half of June 2020, after the end of the lockdown. The authors conclude that the COVID-19 pandemic seems to relate to pediatric practice attendance in Germany. Further studies are needed to assess whether this is due to families' fears of becoming infected in medical facilities, or whether physicians became too busy to report clinic data.	In this comparison of pediatric visits in Germany between 2019 and 2020, the authors found that there were no significant differences during the first 10 weeks of 2020. However, in April, during the first wave of the COVID-19 pandemic, the weekly number of visits was significantly lower in 2020 than in 2019. The authors conclude that the COVID-19 pandemic seems to relate to pediatric practice attendance in Germany.	Vogel M, Beger C, Gausche R, et al. COVID-19 pandemic and families' utilization of well-child clinics and pediatric practices attendance in Germany. BMC Res Notes. 2021;14(1):140. doi:10.1186/s13104-021-05562-3
COVID-19; pediatric; saddle pulmonary embolism; nephrotic syndrome; pneumonia; United States	16-Apr-21	<a href="#">Saddle pulmonary embolism in a pediatric patient with nephrotic syndrome and recent COVID-19 pneumonia: A case report</a>	American Journal of Emergency Medicine	Case Report	The authors described hypercoagulability and its relation to COVID-19 in a pediatric patient in the United States [date not specified]. The 11-year-old male with obesity, recently diagnosed nephrotic syndrome (4 months prior) and COVID-19 pneumonia (8 weeks prior) presented to the pediatric emergency department with a chief complaint of non-bloody, non-bilious vomiting for the past 3 days. Associated symptoms were shortness of breath, fatigue, weight gain, lower extremity swelling, and pain in the right buttocks. He was found to have tachypnea. CT-angiography of his chest revealed a saddle pulmonary embolism extending into the segmental and subsegmental branches bilaterally, with evidence of right heart strain. The patient was treated with heparin and tissue plasminogen activator. He was admitted to the pediatric ICU, where he was also treated with systemic glucocorticoids, antithrombin III infusions, and enalapril for hypertension and to decrease protein wasting. He was successfully transitioned to warfarin and discharged home on day 21. This case highlighted the risk of subsequent thrombotic complications in pediatric patients following SARS-CoV-2 infection. The authors also supported the need for standardized guidelines for pharmacologic prophylaxis of venous thrombo-embolism in patients with COVID-19 and risk factors for thrombo-embolism.	The authors described hypercoagulability state and its relation to COVID-19 in a pediatric patient in the United States. This case highlighted the risk of subsequent thrombotic complications in pediatric patients following SARS-CoV-2 infection. The authors also supported the need for standardized guidelines for pharmacologic prophylaxis of venous thrombo-embolism in patients with COVID-19 and risk factors for thrombo-embolism.	Cristoforo T, McKinley G, Ambrosio P. Saddle pulmonary embolism in a pediatric patient with nephrotic syndrome and recent COVID-19 pneumonia: A case report. Am J Emerg Med. 2021. doi:10.1016/j.ajem.2021.04.014.

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COVID-19; pediatric; MIS-C; United States	16-Apr-21	<a href="#">Multisystem Inflammatory Syndrome in Infants &lt;12 months of Age, United States, May 2020-January 2021</a>	The Pediatric Infectious Disease Journal	Article	The authors described the clinical course, laboratory findings, therapeutics, and outcomes among infants <12 months old diagnosed with MIS-C in the United States. The patients were identified by reports to the CDC's MIS-C national surveillance system between May 2020-January 2021. 85 infants with MIS-C were identified (median age=7.7 months, age range=14 days-11.96 months; 57.6% male), and 83 (97.6%) tested positive for SARS-CoV-2 infection on PCR, serology, or antigen testing. Rash (62.4%), diarrhea (55.3%) and vomiting (55.3%) were the most common signs and symptoms reported. Other clinical findings included hypotension (21.2%), pneumonia (21.2%), and coronary artery dilatation or aneurysm (13.9%). Laboratory abnormalities included elevated C-reactive protein, ferritin, D-dimer, and fibrinogen. 23 infants had follow-up data; 3 of the 14 patients who received a follow-up echocardiogram had cardiac abnormalities during or after hospitalization. 9 infants had elevated inflammatory markers up to 98 days post-discharge. 1 infant (1.2%) died after experiencing multi-system organ failure secondary to MIS-C. The findings indicate that infants appear to have a milder course of MIS-C than older children, generally with resolution of their illness after hospital discharge.	The authors described the clinical course, laboratory findings, therapeutics, and outcomes among infants <12 months old diagnosed with MIS-C in the United States. The findings indicate that infants appear to have a milder course of MIS-C than older children, generally with resolution of their illness after hospital discharge.	Godfred-Cato S, Tsang CA, Giovanni J, et al. Multisystem Inflammatory Syndrome in Infants <12 months of Age, United States, May 2020-January 2021. <i>Pediatr Infect Dis J.</i> 2021. doi:10.1097/INF.0000000000003149.
COVID-19; mental health; pregnancy; quality of health care; quality of life	16-Apr-21	<a href="#">Health-related quality of life and quality of care in pregnant and postnatal women during the COVID-19 pandemic: A cohort study</a>	International Journal of Gynaecology and Obstetrics	Original Research	This prospective cohort study evaluated the health-related quality of life and quality of care among pregnant and postpartum women in a maternity unit in Ireland during the COVID-19 pandemic. Women who contracted SARS-CoV-2 in the antenatal period (n=18) were compared to women who did not (n=20), between June-July 2020. Both groups completed questionnaires concerning their hospital experiences and their mental and physical state within 4 weeks postpartum. The Short Form Health Survey (SF-12) has a question range of 0-100, with 50 as an average score, and is split into categories exploring mental (i.e., stress) and physical health (i.e., energy level), with higher scores indicating better health. 67% of the COVID-19 cohort were not Caucasian, while 95% of the non-COVID-19 cohort were Caucasian; ethnicity and COVID-19 status were associated ( $\chi^2=16.01$ , $p<0.001$ ). The COVID-19 cohort had lower physical SF-12 scores than the non-COVID-19 cohort (difference of mean scores = 12.67; 95% CI: 6.9, 20.2; $p<0.001$ ). There was no difference in overall mental SF-12 scores or perceived quality of hospital care received between the COVID-19 and non-COVID-19 cohorts. However, the COVID-19 cohort reported higher satisfaction with the nutrition and equipment provided in their rooms, and with their hospital beds (difference of mean scores = -0.71; 95% CI: -1.18, -0.24; $p<0.003$ ). The authors hypothesize that this could be because isolation measures for COVID-19 positive patients included single rooms with en-suite bathrooms and more targeted postnatal care. They conclude that	This prospective cohort study evaluated the health-related quality of life and quality of care among pregnant and postpartum women in a maternity unit in Ireland during the COVID-19 pandemic. Women with COVID-19 were more likely to not be Caucasian, report worse immediate physical health, and report higher satisfaction with their hospital beds, nutrition, and equipment provided. The authors conclude that high-quality care can be delivered during the pandemic, regardless of patient COVID-19 status.	Alaya F, Worrall AP, O'toole F et al. Health-related quality of life and quality of care in pregnant and postnatal women during the COVID-19 pandemic: A cohort study. <i>Int J Gynaecol Obstet.</i> 2021 Apr 16. doi: 10.1002/ijgo.13711.

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					high-quality care can be delivered during the pandemic, regardless of patient COVID-19 status.		
SARS-CoV-2; household infections; child health; urban	16-Apr-21	<a href="#">SARS-CoV-2 Infection Dynamics in Children and Household Contacts in a Slum in Rio de Janeiro</a>	Official Journal of the American Academy of Pediatrics	Original Research	This cohort study investigated the dynamics of SARS-CoV-2 infection in children and their household contacts living in urban Rio de Janeiro, Brazil. It followed 667 participants (n=323 children, age range: 0-13 years; n=54 adolescents, age range: 14-19 years; n=290 adults) from 259 households between May 18-September 24, 2020, with home visits occurring 1, 2, and 4 weeks post-enrollment. SARS-CoV-2 PCR assays and IgG serology were performed on all children and household contacts during these visits. 13.9% of children tested positive for SARS-CoV-2 via PCR during the study, with infections most frequent in children <1 year old (25%) and those 11-13 years old (21%). All children that tested positive had an adult contact with evidence of a recent infection. No child had severe COVID-19 symptoms, and asymptomatic infection was more common in children <14 years old (74.3%) than those older (51.1%). The percentage of household members with SARS-CoV-2 was not correlated with the number of persons per room. The authors conclude that their results indicate that children do not seem to be the source of SARS-CoV-2 infections, but rather acquire the virus from adults.	This cohort study investigated the dynamics of SARS-CoV-2 infection in children and their household contacts living in urban Rio de Janeiro, Brazil. The authors conclude that children do not seem to be the source of SARS-CoV-2 infections, but rather acquire the virus from adults.	Lugon P, Fuller T, Damasceno L, et al. SARS-CoV-2 Infection Dynamics in Children and Household Contacts in a Slum in Rio de Janeiro. Pediatrics. 2021 Apr 16:e2021050182. doi: 10.1542/peds.2021-050182.
COVID-19; pregnancy; anesthesia	16-Apr-21	<a href="#">Management of maternal COVID-19: considerations for anesthesiologists</a>	Current Opinion in Anesthesiology	Review	The authors described updates to pragmatic medical recommendations that were published during the first COVID-19 surge in spring of 2020, including the current thinking about whether pregnancy worsens the severity of COVID-19. Although a majority of pregnant women infected with SARS-CoV-2 remain asymptomatic or pauci-symptomatic, pregnancy puts women at higher risk of severe COVID-19 and adverse birth outcomes. Pregnant and recently pregnant women are more likely to be admitted to ICU and receive mechanical ventilation than non-pregnant patients with COVID-19, although pre-existing maternal comorbidities are significant risk factors. Early provision of neuraxial labor analgesia with a functional indwelling epidural catheter has been universally promoted, with the goal to reduce avoidable general anesthesia for C-sections and mitigate risks for healthcare workers during airway manipulation. This recommendation, along with updated workflow models of anesthesia coverage, may contribute to a reduction in general anesthesia rates. Initial recommendations to provide early neuraxial labor analgesia and avoid general anesthesia for C-sections have not changed over time. Although workflows have significantly changed to allow continued patient and healthcare workers' safety, clinical anesthesia protocols for labor and delivery essentially remain the same.	The authors described updates to pragmatic medical recommendations that were published during the first COVID-19 surge in spring of 2020, including the current thinking about whether pregnancy worsens the severity of COVID-19. Initial recommendations to provide early neuraxial labor analgesia and avoid general anesthesia for C-sections have not changed over time. Although workflows have significantly changed to allow continued patient and healthcare workers' safety, clinical anesthesia protocols for labor and delivery essentially remain the same.	Bernstein K, Landau R. Management of maternal COVID-19: considerations for anesthesiologists. Curr Opin Anaesthesiol. 2021. doi:10.1097/ACO.0000000000001001.

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COVID-19; attitude; elementary school students; parents; online learning	16-Apr-21	<a href="#">Experiences and attitudes of elementary school students and their parents toward online learning in China during the COVID-19 pandemic: Questionnaire Study</a>	Journal of Medical Internet Research	Original Research	This study investigates the experiences of elementary school students (35.1% in grade 4, range: grades 1-6) and their parents toward online learning in China during the COVID-19 pandemic. A questionnaire assessing course and homework completeness as well as the students' enthusiasm to take part in online classes was distributed at the 10 day- and 40 day-mark after the first online course in mid-February 2020 to 867 parent-child pairs and 141 parent-child pairs, respectively. More than 91% of students initially exhibited high or moderate enthusiasm for participating in online classes. However, most students performed poorly in online learning classes (50-76%) and homework (51.6 -76.3%). The proportion of students who completed courses and homework on time significantly decreased ( $p < 0.001$ ) during the follow up period. Overall satisfaction of parents and students with online learning declined during this second stage (7.21 vs. 7.23); however, the difference was not statistically significant. Several parents (36.2%) indicated that supervising the students' online learning increased stress; most parents and students hoped to return to face-to-face classes (94.9% vs. 93.5%). Results presented 6 main issues of parental concern: (1) disappointment regarding timely interaction in courses; (2) apprehension about students understanding of the course; (3) increased burden of adult responsibilities; (4) children's eyesight; (5) teachers' explanations were not detailed enough; (6) decline of students' interest and attention. The authors conclude that measures such as increasing the interactivity of the courses and prohibiting teachers from assigning the task to parents could improve the effectiveness of these courses and the mental health level of parents and students.	This study investigates the experiences of elementary school students and their parents toward online learning in China during the COVID-19 pandemic. The authors conclude that measures such as increasing the interactivity of the courses and prohibiting teachers from assigning the task to parents could improve the effectiveness of these courses and the mental health level of parents and students.	Cui S, Zhang C, Wang S, et al. Experiences and attitudes of elementary school students and their parents toward online learning in China during the COVID-19 pandemic: Questionnaire Study [published online ahead of print, 2021 Apr 16]. <i>J Med Internet Res</i> . 2021;10.2196/24496. doi:10.2196/24496
COVID-19; pediatric; orthopedic surgery; telemedicine; United States	16-Apr-21	<a href="#">Telehealth Utilization in Response to the COVID-19 Pandemic in Pediatric Orthopaedic Surgery [Free Access to Abstract Only]</a>	The Journal of the American Academy of Orthopaedic Surgeons	Original Research	This study assessed the utilization of telehealth capabilities by pediatric orthopedic departments across the United States in response to the COVID-19 pandemic. 104 pediatric orthopedic departments were investigated regarding each institution's current telehealth utilization as a direct response to the pandemic. Of the 104 hospitals contacted across the United States, 100 pediatric orthopedic departments in 39 states responded for an overall response rate of 96%. Of the 95 institutions offering telehealth services, 83 (87.4%) cited the COVID-19 pandemic as the impetus for the implementation of telehealth services. Of these, 29 institutions (31%) began offering services from March 16 - 31, 2020, and 34 (36%) began offering services from April 1-15, 2020. A statistically significant difference ( $p = 0.001$ ) was realized regarding regionally-based initiation of telehealth services across the United States. The regional analysis demonstrated an 800% increase in telehealth services in New York, a 600% increase in Florida, a 500% increase in Texas, a 400% increase in Michigan, a 200% increase in Pennsylvania, and a 1,100% increase in California. This study demonstrates the rapid response measures instituted by	This study assessed the utilization of telehealth capabilities by pediatric orthopedic departments across the United States in response to the COVID-19 pandemic. Of the 95 institutions offering telehealth services, 83 (87.4%) cited the COVID-19 pandemic as the impetus for the implementation of telehealth services. This study demonstrates the rapid response measures instituted by pediatric orthopedic institutions to meet the fundamental needs of the	Parisien RL, Shin M, Trofa DP, et al. Telehealth Utilization in Response to the COVID-19 Pandemic in Pediatric Orthopaedic Surgery. <i>J Am Acad Orthop Surg</i> . 2021. doi:10.5435/JAAOS-D-20-00694.

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lifestyle, social distancing, pediatric, physical activity, youth	16-Apr-21	<a href="#">Changes in eating habits and sedentary behavior during the COVID-19 pandemic in adolescents with chronic conditions</a>	medRxiv	Preprint (not peer-reviewed)	The purpose of this observational study was to report on the impact of the COVID-19 outbreak on eating habits and sedentary behavior among 347 adolescents with multiple chronic conditions (mean age: 14.3 years, 95% CI: 14.0-14.5 years) compared to their healthy peers (mean age: 14.2, 95% CI: 13.7-14.7 years). This study was conducted in Sao Paulo, Brazil between July and October 2020, while social distancing measures to contain the pandemic were in place. The main findings of this study were that changes in eating habits and sedentary behavior were similar across patients and controls. Changes in eating habits among adolescents with chronic conditions included less frequent consumption of convenience foods and more frequent eating in front of television than before quarantine. Both adolescents with chronic conditions (86.8%) and their healthy counterparts (91.6%) reported increasing screen time during the pandemic (p=0.219 for between-group comparison). A greater portion of controls (55.8%) stated spending >6 hours in sedentary behavior compared with patients with chronic conditions (44.6%), whereas a greater proportion of patients declared spending 3-6 hours (45.1%) and <3 hours (10.3%) in sedentary behavior versus healthy controls (36.8 and 7.4%, respectively) (p=0.039). The most concerning finding was the dramatic increase in the proportion of patients increasing sedentary behavior during the pandemic, with approximately 50% of the patients reporting screen time >6 hours/day. This is of clinical relevance as adolescents with chronic conditions are more likely to have worse COVID-19 prognosis than their healthy counterparts since increased sedentary behavior and poor eating habits are associated with increased risk of childhood obesity.	This study in Brazil was reported on the impact of the COVID-19 outbreak on eating habits and sedentary behavior among 347 adolescents with multiple chronic conditions compared to their healthy peers. Results show that changes in eating habits and sedentary behavior were similar across patients and controls. This is of clinical relevance as adolescents with chronic conditions are more likely to have worse COVID-19 prognosis than their healthy counterparts since increased sedentary behavior and poor eating habits are associated with increased risk of childhood obesity.	Mazzolani BC, Smaira FI, Astley C, et al. Changes in eating habits and sedentary behavior during the COVID-19 pandemic in adolescents with chronic conditions. medRxiv 2021.04.16.21255582; doi: 10.1101/2021.04.16.21255582
COVID-19, epidemiology, health disparities, pediatric, SARS-CoV-2	16-Apr-21	<a href="#">The clinical epidemiology of coronavirus disease 2019 in children and adolescents mirrors the widening gap in healthcare disparities</a>	Current Opinion in Pediatrics	Review	The aim of this review is to understand how a virus hijacked deep-rooted inequities as the COVID-19 pandemic has exacerbated the longstanding racial/ethnic health disparities in the United States, with a disproportionately negative effect on children of color. This review summarized recently published studies that describe the clinical epidemiology and racial/ethnic disparities associated with COVID-19 in children. Children with SARS-CoV-2 infections manifest with a wide spectrum of disease. Most are either asymptomatic or mildly symptomatic with fever, gastrointestinal, and/or upper respiratory disease. Some children can progress to develop severe lower respiratory disease or a hyper-inflammatory, Kawasaki-like syndrome leading to cardiovascular shock. Although COVID-19-related deaths in children are rare, more children died within the first 9 months of the pandemic than have died during any influenza season over the last decade. Black and Hispanic children represent less than 41% of the US population but accounted for 3 out of every 4 COVID-19-related hospitalizations	This review discusses how the COVID-19 pandemic has exacerbated longstanding racial/ethnic health disparities in the US, with a disproportionately negative effect on children of color. Black and Hispanic children represent less than 41% of the US population but accounted for 3 out of every 4 COVID-19-related hospitalizations and deaths in the US. These findings should inform future policies to prevent this perennial health disparities	Zirinsky E, Paintsil E, Oliveira CR. The clinical epidemiology of coronavirus disease 2019 in children and adolescents mirrors the widening gap in healthcare disparities [published online ahead of print, 2021 Apr 16]. Curr Opin Pediatr. 2021; 10.1097/MOP.0000000000001018. doi:10.1097/MOP.0000000000001018

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					and deaths in the US. The drivers of these disparities in children are complex and likely a combination of societal, biological, and behavioral influences. The pandemic brought to light longstanding health disparities in historically marginalized populations, and minority children have suffered tremendously. These findings should inform future policies to prevent this perennial health disparities within minority communities for future epidemics.	within minority communities for future epidemics.	
pregnancy; vaccination; SARS-CoV-2	16-Apr-21	<a href="#">Joint IFFS/ESHRE statement on COVID-19 vaccination for pregnant women and those considering pregnancy</a>	Human Reproduction Open	Article	The authors discuss the status of COVID-19 vaccines for pregnant women and women planning to conceive, highlight options for these women who do and do not want to receive the COVID-19 vaccine currently, and make recommendations on behalf of the International Federations of Fertility Societies (IFFS) and the European Society of Human Reproduction and Embryology (ESHRE). Although 10 COVID-19 vaccines currently have published data, safety data for pregnant women remain unpublished for any of these vaccines, though trials including pregnant women are anticipated soon. For women planning to conceive, the authors discuss 2 major options: 1) defer pregnancy until SARS-CoV-2 transmission is substantially reduced or vaccines are readily accessible to the general population or 2) proceed with conception efforts, continue SARS-CoV-2 mitigation measures, and seek a COVID-19 vaccine as soon as possible. They note that option 1 provides lower risk for women and is especially safe in areas with ineffective pandemic control or insufficient vaccination supply/infrastructure. For women who are currently pregnant, 2 choices are again offered: 1) continue mitigation strategies and seek vaccination post-pregnancy or 2) seek a vaccine as soon as possible and continue mitigation measures. The authors emphasize that vaccination remains an individual choice and depends on factors such as availability and recipients' knowledge of risks. They recommend professional advice for pregnant women and women planning to conceive, and highlight the need to recruit pregnant women in ongoing vaccine trials.	The authors make a statement on options for pregnant women and women planning to conceive regarding COVID-19 vaccination, on behalf of the International Federations of Fertility Societies (IFFS) and the European Society of Human Reproduction and Embryology (ESHRE). Both groups of women may choose either to follow COVID-19 mitigation practices and defer vaccination until after pregnancy, or to continue established SARS-CoV-2 mitigation measures and seek vaccination as soon as possible either while pregnant or while deferring conception efforts, respectively.	Ory S, Veiga A, Horton M, et al. Joint IFFS/ESHRE statement on COVID-19 vaccination for pregnant women and those considering pregnancy. Hum Reprod Open. 2021. Published 2021 Apr 16. doi:10.1093/hropen/hoab016
pediatric, SARS-CoV-2, anti-viral, immunity, immune response	16-Apr-21	<a href="#">Stronger anti-viral responses in pediatric COVID-19 patients in South Brazil</a>	medRxiv	Preprint (not peer-reviewed)	In this study, the authors sought to understand children's frequency of and immune responses to SARS-CoV-2 infection. They performed immune profiling of pediatric and adult COVID-19 patients in Brazil, asking if cellular or humoral immune responses could help explain milder disease in children. The sample was recruited June–December 2020 and included 92 patients (25 children, 34 adults with mild disease, and 33 adults with severe disease) with median ages of 9 years (IQR 1.5–13.5 years), 38 years, and 61 years, respectively ( $p < 0.0001$ ). COVID symptoms were significantly different in all 3 groups (all $p < 0.05$ ), as were underlying conditions of obesity, hypertension, asthma, and diabetes mellitus ( $p < 0.05$ for each). Immunologically, pediatric COVID-19 patients had high viral titers. Though children's non-	This study sought to understand children's frequency of and immune responses to SARS-CoV-2 infection via epidemiological analysis and immune profiling in a total of 92 children and adults in Brazil. Prevalence of underlying obesity, hypertension, asthma, and diabetes mellitus all differed significantly between children and adults with mild or severe	Fazolo T, Lima K, Fontoura JC, et al. Strong anti-viral responses in pediatric COVID-19 patients in South Brazil. medRxiv. 2021. doi:10.1101/2021.04.13.21255139

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					specific immune profile was dominated by naive, non-activated lymphocytes, their dendritic cells expressed high levels of HLA-DR and were low in CX3CR1, indicating competence to generate immune responses that are not targeted to inflamed tissue. Finally, children formed strong specific antibody and T cell responses for viral structural proteins. Children's T cell responses differed from adults in that their CD8+ TNF- $\alpha$ T cell responses were low for S peptide, but significantly higher against N and M peptide pools. Altogether, these data support a scenario in which SARS-CoV-2-infected children may contribute to transmission, though generating strong and differential responses to the virus that might be associated with protection in pediatric COVID-19 presentation.	disease. Pediatric COVID-19 patients had high viral titers and strong but different antibody and T cell responses than adults, suggesting ways that pediatric populations are protected against COVID-19.	
Children, adolescents, eating disorders, telehealth, virtual, caregivers	16-Apr-21	<a href="#">The COVID-19 pandemic and eating disorders in children, adolescents, and emerging adults: virtual care recommendations from the Canadian consensus panel during COVID-19 and beyond</a>	Journal of Eating Disorders	Practice Guidelines	This article describes clinical practice guidelines on the provision of virtual care for children, adolescents, and emerging adults living with an eating disorder (ED) during the COVID-19 pandemic in Canada. A comprehensive literature search was conducted on the impact of COVID-19, as well as virtual and online treatments for children/adolescents (< 18 years) and emerging adults (18–25 years) with EDs and their caregivers from 2000-2020. A multi-disciplinary guideline development panel of 27 diverse stakeholders from across Canada then convened in May 2020 to create consensus recommendations. These included: strong recommendations for in-person medical evaluation, when necessary, for children, adolescents, and emerging adults, and strong recommendations that equity-seeking groups and marginalized youth should be provided equal access to treatment. For emerging adults, internet cognitive behavioral therapy (CBT)-based guided self-help was strongly recommended. For children and adolescents, weak recommendations were determined for telehealth family-based treatment (FBT), and online guided parental self-help FBT. For caregivers of children and adolescents, weak recommendations were supported for virtual parent meal support training, as well as moderated online caregiver forums and support groups. The panel concluded with identifying several areas for future research, including the impact of sex, gender, race, and socio-economic status on virtual care for eating disorders.	In this article, the authors provide clinical practice guidelines on the provision of virtual care for children, adolescents, and emerging adults living with an eating disorder (ED) in Canada. Strong recommendations were made for in-person medical evaluation, when necessary, for children, adolescents, and emerging adults, and that equity-seeking groups and marginalized youth should be provided equal access to treatment. For emerging adults (18-25 years of age), internet cognitive behavioral therapy (CBT)-based guided self-help was strongly recommended. The panel concluded with identifying several areas for future research, including the impact of sex, gender, race, and socio-economic status on virtual care for eating disorders.	Couturier J, Pellegrini D, Miller C, et al. The COVID-19 pandemic and eating disorders in children, adolescents, and emerging adults: virtual care recommendations from the Canadian consensus panel during COVID-19 and beyond. J Eat Disord. 2021;9(1):46. Published 2021 Apr 16. doi:10.1186/s40337-021-00394-9

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
COVID-19; prenatal care; protocol; meta-analysis	16-Apr-21	<a href="#">The efficacy of reduced-visit prenatal care model during the coronavirus disease 2019 pandemic: A protocol for systematic review and meta-analysis</a>	Medicine	Protocol	The authors discussed a protocol for a systematic review and meta-analysis to assess the efficacy of a reduced-visit prenatal care model during the COVID-19 pandemic. The online literature will be searched using the following combination of medical subject heading terms: "prenatal care" OR "prenatal nursing" AND "reduced-visit" OR "reduce visit" OR "virtual visit." MEDLINE, EMBASE, Cochrane Central Register of Controlled Trials, and Web of Science will be searched without any language restrictions. A standard data extraction form will be used independently by 2 reviewers to retrieve the relevant data from the articles. The outcome measures will include pregnancy-related stress, satisfaction with care, and quality of care. It is hypothesized that a reduced-visit prenatal care model will provide similar outcomes compared with a traditional care model. The results of this review will add to the existing literature by showing compelling evidence on this model of care, as well as improving guidance in clinic settings.	The authors discussed a protocol for a systematic review and meta-analysis to assess the efficacy of reduced-visit prenatal care model during the COVID-19 pandemic. The results of this review will add to the existing literature by showing compelling evidence on this model of care, as well as improving guidance in clinic settings.	Wang X, Wang Y, Liang L. The efficacy of reduced-visit prenatal care model during the coronavirus disease 2019 pandemic: A protocol for systematic review and meta-analysis. <i>Medicine (Baltimore)</i> . 2021;100(15):e25435. doi:10.1097/MD.00000000000025435.
COVID-19; neonate; tachyarrhythmia; United States	16-Apr-21	<a href="#">Tachyarrhythmia as a possible symptom of coronavirus in a neonate diagnosed with transposition of the great arteries</a>	Journal of Cardiac Surgery	Case Report	The authors report the case of a 6-day-old male delivered full-term who tested positive for SARS-CoV-2 RT-PCR, 12 days after surgical correction of transposition of the great arteries in July 2020 in the United States. The patient had negative preoperative testing for the SARS-CoV-2 virus and presented with profound oxygen desaturation and respiratory failure several days postoperatively, raising concern for a complication of his arterial switch operation. Persistent desaturation in the setting of a pandemic led to the patient's isolation, the initiation of IV heparin, and the collection of nasopharyngeal swabs from the patient, all staff members exposed to the infant, and the mother for SARS-CoV-2 RT-PCR testing. Of all those tested, only the infant and his asymptomatic mother were positive for SARS-CoV-2. Imaging ruled out intracardiac shunting, and after initiating treatment for COVID-19, the patient's oxygen requirements and need for anti-arrhythmic agents improved. Despite substantial improvements in the clinical status, the infant continued to test positive for SARS-CoV-2 for almost 3 weeks. Following 2 successive negative tests on consecutive days, his isolation status was removed on postoperative day (POD) 40. The infant was subsequently discharged to home care on POD 48. This case report describes the possible postoperative clinical course of neonates with congenital heart disease and SARS-CoV-2 infection. The authors propose that, despite negative preoperative testing, SARS-CoV-2 infection may present as refractory tachyarrhythmia and may be considered along with surgical complications as a cause for unexplained hypoxemia postoperatively.	The authors reported the case of a 6-day-old male delivered full-term who tested positive for SARS-CoV-2 RT-PCR, 12 days after surgical correction of transposition of the great arteries in July 2020 in the United States. The neonate demonstrated an evolving and persistent tachyarrhythmia that was consistent with neither the most likely postoperative complications nor typical COVID-19. The authors propose that, despite negative preoperative testing, SARS-CoV-2 infection may present as refractory tachyarrhythmia and may be considered along with surgical complications as a cause for unexplained hypoxemia postoperatively.	Lopez RA, Padilla LA, Sorabella RA, et al. Tachyarrhythmia as a possible symptom of coronavirus in a neonate diagnosed with transposition of the great arteries. <i>J Card Surg</i> . 2021. doi:10.1111/jocs.15574.

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
schools; prevention; distancing; policy	16-Apr-21	<a href="#">Implementation of preventive measures to prevent COVID-19: a national study of English primary schools in summer 2020</a>	Health Education Research	Original Research	The authors examined the feasibility of implementing measures to prevent SARS-CoV-2 transmission across primary schools in England. Primary schools with >30 students attending school during summer for >4 weeks were approached, and interested schools completed a cross-sectional online survey between July and August 2020. All 105 participating schools served students <11 years old, and 8.6% also served older children [mean age of students not provided]. Over a third of schools served 200–400 students, while 29.5% had 401–600 students enrolled. Implementation of most recommended measures was considered “easy” by respondents, with the exception of fitting hand sanitizers in classrooms and introducing one-way systems in school corridors. Participants reported that challenging measures included distancing between individuals (for students: 51%, 50/99; for staff: 34%, 33/98; for parents: 26%, 26/100), spacing out desks (34%, 34/99), keeping same staff assigned to each student group (33%, 32/97) and staggering break times (25%, 25/99). Rapid implementation was facilitated by staff commitment and communication among stakeholders, but hampered by limitations with guidance received, physical environments, resources, parental adherence, and balancing preventive measures with learning. Difficulties with distancing for younger children suggest that smaller “bubbles” with fewer distancing requirements within these may be a policy option. Schools require further research and financial, human resource, and other support for effective implementation of preventive measures.	In this cross-sectional study, the authors evaluated the feasibility of preventative measures such as handwashing and social distancing to prevent SARS-CoV-2 transmission across 105 primary schools in the UK. Though implementation was easy for most recommended measures, difficulties were reported in distancing between students, staff, and parents, desk spacing in classrooms, maintaining staff assignments for student groups, and staggering break times. Effective implementation of preventative measures requires further study and support.	Sundaram N, Bonell C, Ladhani S, et al. Implementation of preventive measures to prevent COVID-19: a national study of English primary schools in summer 2020. Health Educ Res. 2021. doi:10.1093/her/cyab016
ENT; pediatrics; COVID-19; mastoiditis; cervical infection	16-Apr-21	<a href="#">COVID-19 and severe ENT infections in pediatric patients. Is there a relationship?</a>	International Journal of Pediatric Otorhinolaryngology	Original Research	This study aimed to determine whether there is a relationship between COVID-19 and severe infections in the ear, nose, throat, and deep cervical area (ENT) in pediatric populations in Spain. A compilation was made of all the cases of ENT area infections in the pediatric population per month attended to at the Niño Jesús University Children's Hospital from January 2010 to June 2020 (ages not provided). Endemic channels and dispersion analysis were designed to analyze the incidence presented in the year 2020, compared to what was expected based on historical data from 2010 to 2019. 620 patients out of the identified 1022 were eligible and analyzed in the study. The authors observed a significant outbreak in the incidence of complicated mastoiditis and deep cervical infections with complications in the year 2020 (n=13 patients) linked to the COVID-19 pandemic. Of these patients, 54% had been confirmed or had high suspicion of close contact with SARS-CoV-2-positive individuals. 15.4% of children were positive in serological tests for IgG antibodies. Though SARS-CoV-2 infection could not be definitively linked to this increased incidence, the authors suggest that limitations in primary care due to a shortage of human resources in dealing with the pandemic's	This study aimed to determine whether there is a relationship between COVID-19 and severe infections in the ear, nose, throat, and deep cervical area (ENT) in pediatric populations in Spain. The authors observed a significant outbreak in the incidence of complicated mastoiditis and deep cervical infections with complications in the year 2020 linked to the COVID-19 pandemic, with 54% having confirmed or suspected close contact with SARS-CoV-2-positive individuals. Though SARS-CoV-2 infection could not be definitively linked to this increased ENT infection incidence, limitations in primary care and changes in	Aguillen-Lozada E, Bartolome-Benito M, Juara-Moreno A, et al. COVID-19 and severe ENT infections in pediatric patients. Is there a relationship? <i>Int J Journal of Ped Oto.</i> 2021; 110174:0165-5876. doi:10.1016/j.jpjporl.2021.110714

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					initial onslaught and changes in health-seeking behavior could explain the increased complicated ENT infections.	health-seeking behavior could explain the increased complicated ENT infections.	
SARS-CoV-2; COVID-19; Children; School; Serology; Protocol; Canada	16-Apr-21	<a href="#">Seroprevalence of anti-SARS-CoV-2 antibodies among school and daycare children and personnel: Protocol for a cohort study in Montreal, Canada</a>	medRxiv	Preprint (not peer-reviewed)	This article outlines a protocol for the EnCORE study that will examine the seroprevalence and seroconversion of SARS-CoV-2 among school and daycare children and personnel and associations between seroprevalence and sociodemographic characteristics and reported COVID-19 symptoms and tests. The study will also investigate changes in health, lifestyle, and well-being outcomes. The study includes children and personnel from 62 schools and daycares in four neighborhoods in Montreal, Canada, recruited between October 2020-March 2021. All children age 2-17 years attending one of the participating schools or daycares, and their parents are invited to participate, as well as a sample of personnel members. Participants respond to brief questionnaires and provide blood samples, collected via dried blood spot (DBS), at baseline (October 2020-March 2021), and follow-up (May-June 2021). Questionnaires include sociodemographic, and household characteristics reported COVID-19 symptoms and tests, potential COVID-19 risk factors and prevention efforts, and health and lifestyle information. Logistic regression using generalized estimating equations will be used to estimate seroprevalence and seroconversion, accounting for school-level clustering. The results of the EnCORE study will contribute to our knowledge about SARS-CoV-2 transmission in schools and daycares, which is critical for decisions regarding school attendance and the management of school outbreaks through the remainder of this school year and beyond. This protocol provides valuable information on the construction of needed seroprevalence and seroconversion studies to help policymakers and politicians understand measures needed to prevent transmission and infection risks among schools and daycare centers.	This article outlines a protocol for the EnCORE study that will examine the seroprevalence and seroconversion of SARS-CoV-2 among school and daycare children and personnel in Canada, related sociodemographic characteristics, and changes in health and lifestyle patterns. The protocol provides valuable information on the construction of needed seroprevalence and seroconversion studies to help policymakers and politicians understand infection prevention measures in schools and daycares.	Zinszer K, McKinnon B, Bourque N, et al. Seroprevalence of anti-SARS-CoV-2 antibodies among school and daycare children and personnel: Protocol for a cohort study in Montreal, Canada. <i>medRxiv</i> . 2021; doi:10.1101/2021.04.14.21255499
Pregnancy, morbidity, maternal health, length of stay, hospitalization, mortality, ventilation	16-Apr-21	<a href="#">The risk of clinical complications and death among pregnant women with COVID-19 in the Cerner COVID-19 cohort: a retrospective analysis</a>	BioMed Central (BMC) Pregnancy and Childbirth	Original Research	This retrospective study assessed the impact of pregnancy on SARS-CoV-2 associated morbidity and mortality. Female patients 18-44 years of age were identified from January-June 2020 utilizing the Cerner COVID-19 de-identified cohort, which utilizes data from the electronic health record systems (EHRs) of 62 participating US hospitals. Mixed-effects logistic and exponential regression models were used to evaluate the risk of hospitalization, maximum hospital length of stay (LOS), moderate ventilation, invasive ventilation, and death for pregnant women. Out of 22,493 female patients with a COVID-19-associated encounter, defined as diagnosis of SARS-CoV-2 exposure, possible infection, or confirmed infection, 7.2% (n = 1609) were pregnant. Crude results indicated that pregnant women, compared to non-pregnant women, had higher rates of hospitalization (60.5% vs. 17.0%, p < 0.001), higher mean maximum LOS (0.15 day vs. 0.08 day, p < 0.001) among those	This study found that pregnant women with a SARS-CoV-2-associated hospital encounter had higher rates of hospitalization, higher mean length of stay among those who stayed <1 day, lower mean length of stay among those who stayed ≥1 day, and higher moderate ventilation use than non-pregnant women. The authors conclude that SARS-CoV-2 infection in pregnancy confers substantial	Qeadan F, Mensah NA, Tingey B, Stanford JB. The risk of clinical complications and death among pregnant women with COVID-19 in the Cerner COVID-19 cohort: a retrospective analysis. <i>BMC Pregnancy Childbirth</i> . 2021;21(1):305. doi:10.1186/s12884-021-03772-y

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					who stayed < 1 day, lower mean maximum LOS (2.55 days vs. 3.32 days, P < 0.001) among those who stayed ≥1 day, and higher moderate ventilation use (1.7% vs. 0.7%, P < 0.001) but showed no significant differences in rates of invasive ventilation or death. The authors conclude that among women with SARS-CoV-2-associated hospital encounters, pregnancy confers substantial additional risk of morbidity, but no difference in mortality.	additional risk of morbidity, but no difference in mortality.	
COVID-19, Coronavirus, Adolescents, Mental health, Pandemic	15-Apr-21	<a href="#">Coping and Mental Health in Early Adolescence during COVID-19</a>	Research on Child and Adolescent Psychopathology	Original Research	The results reported in this paper are part of a larger longitudinal study designed to study gratitude among well-resourced families. The current study explored changes in mental health during the COVID-19 pandemic. 105 parent-child dyads from the Southeastern United States completed surveys when the children were aged 6–9, 8–12, 9–13, and 12–16 years old ([no additional age data given]), with the most recent survey administered between May 13–July 1, 2020. 3.3% of youth 12–13 years old scored above the threshold for problematic mental health symptoms before the COVID-19 pandemic, increasing to 22.9% during the pandemic. The association between age and symptomatology became non-significant (b = -0.01; p = 0.26) when modeled with the pandemic (b = 0.18; p < 0.001). Symptomatology increased among those with low self-efficacy (b = 0.24; p < 0.001), those with higher emotion-focused disengaged coping (b = 0.24; p < 0.001), and those with emotion-focused engaged coping (b = 0.25; p < 0.001) during the COVID-19 pandemic. Increases among those with high self-efficacy (b = 0.12; p < 0.01), and lower engaged (b = 0.11; p < 0.05) or unengaged (b = 0.11; p < 0.01) emotion-focused coping were observed, but to a lesser degree. The authors hypothesize that these trends may be occurring because changing perceptions and experiences of pandemic-related stress may require more engaged emotion-focused coping.	The current cohort study explored changes in mental health symptomatology during the COVID-19 pandemic. Analyses showed an increase in mental health symptoms compared to before the pandemic. Symptom increases were mitigated in youth with greater self-efficacy, and exacerbated in youth with greater emotion-focused engaged and disengaged coping. The authors conclude that their results may be due to changing perceptions and experiences of pandemic-related stress that may require more engaged emotion-focused coping.	Hussong AM, Midgette AJ, Thomas TE, et al. Coping and Mental Health in Early Adolescence during COVID-19. Res Child Adolesc Psychopathol. 2021;1-11. doi:10.1007/s10802-021-00821-0
COVID-19; SARS-CoV-2; pediatric dermatology; pulpitis; skin	15-Apr-21	<a href="#">Acral peeling as the sole skin manifestation of COVID-19 in children</a>	Pediatric Dermatology	Case Series	This case series examines 6 children (4 male; mean age 9.7 years, range 5-13 years) with mild acral erythema and desquamation of the fingertips and/or toes as the only skin manifestation of COVID-19 in Spain, December 2020. 5 had a positive microbiologic test for SARS-CoV-2 (3 RT-PCR confirmed, 2 Rapid Antigen Confirmed), 1 patient had a negative microbiologic test but was included due to a high clinical suspicion of COVID-19 due to systemic symptoms and positive epidemiological context. The skin lesions involved the fingers only in 4 cases, the toes only in 1 case, and both fingers and toes in 1 case. Mild erythema was followed by superficial desquamation. All cases had a favorable outcome in their infection, and their skin lesions disappeared, mostly spontaneously, in 1 to 4 weeks. No medical treatment was applied on the skin, aside from 2 patients who were treated with topical corticosteroids. The authors conclude that in the context of the COVID-19 pandemic, appearance of acral erythema and	This case series examines 6 children with mild acral erythema and desquamation of the fingertips and/or toes as the only skin manifestation of COVID-19. The authors conclude that in the context of the COVID-19 pandemic, appearance of acral erythema and desquamation in a child should raise the possibility of SARS-CoV-2 infection, which in these cases were not associated with severe disease.	Andina-Martínez D, Villaizán-Pérez C, Pavo-García MR, et al. Acral peeling as the sole skin manifestation of COVID-19 in children [published online ahead of print, 2021 Apr 15]. <i>Pediatr Dermatol</i> . 2021;10.1111/pde.14599. doi:10.1111/pde.14599

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					desquamation in a child should raise the possibility of SARS-CoV-2 infection. The acral desquamation in COVID-19 presented here is not associated with severe disease, and it is reasonable to consider this to be a sign of benign disease and favorable outcome.		
behavior; coronavirus disease 2019; minority; pregnant women; psychological	15-Apr-21	<a href="#">Anxiety and Adaptation of Behavior in Pregnant Zhuang Women During the COVID-19 Pandemic: A Mixed-Mode Survey</a>	Risk Management and Healthcare Policy	Original Research	The authors conducted a cross-sectional study of 446 pregnant Zhuang women in China 24 February-1 March 2020 to investigate the impact of COVID-19 on their mental health and behavior. Most study participants were 22-35 years old (N=359, 80.49%). The proportions in the first, second, and third trimesters were 10.54% (N=47), 35.20% (N=157), and 54.26% (N=242), respectively. Participants completed online questionnaires and the Self-Rating Anxiety Scale (SAS; possible range: 25-100, with higher levels indicating higher anxiety). The average SAS score was 47.29+/-9.19, and 36.77% (N=164) met the cut-off for anxiety. 25.34% (N=113) of individuals had mild anxiety, 10.09% (N=45) had moderate anxiety, and 1.35% (N=6) had severe anxiety. 56.28% (N=251) of the participants indicated that they could and would self-monitor for pregnancy concerns; 37% (N=165) wanted to practice self-monitoring but did not know how. 63.23% (N=282) believed that they needed to delay prenatal examinations because of the pandemic. 49.55% (N=221) of the respondents preferred teleconsultation services, and 37.67% (N=168) preferred home visits by obstetricians. 85.43% (N=381) of respondents reported that the COVID-19 pandemic had a “huge” impact on their personal lives. Univariate analysis showed that certain demographic/socioeconomic characteristics, frequency of going out, and attitudes toward pregnancy self-monitoring and prenatal examinations were correlated with anxiety scores (all p<0.05). This research demonstrates the urgent need for multidisciplinary mental health services and culturally sensitive interventions and healthcare during the pandemic.	This cross-sectional survey study of 446 pregnant Zhuang women in China between 24 February and 1 March 2020 investigated the impact of COVID-19 on their mental health and behavior adaptation. 36.77% of participants met the cut-off for anxiety diagnosis. The prevalence of anxiety symptoms demonstrates the need for multidisciplinary mental health services and culturally sensitive interventions.	Ge Y, Shi C, Wu B, et al. Anxiety and Adaptation of Behavior in Pregnant Zhuang Women During the COVID-19 Pandemic: A Mixed-Mode Survey. Risk Manag Healthc Policy. 2021 Apr 15;14:1563-1573. doi: 10.2147/RMHP.S303835. PMID: 33883960; PMCID: PMC8055250.
Ophthalmology , ocular findings, MIS-C, pediatrics, children, inflammation	15-Apr-21	<a href="#">Bilateral Acute Anterior Uveitis and Corneal Punctate Epitheliopathy in Children Diagnosed with Multisystem Inflammatory Syndrome Secondary to COVID-19</a>	Ocular Immunology and Inflammation	Case Series	In this case series, the authors describe the ocular findings of 5 patients with MIS-C treated in a hospital in Turkey [dates not provided]. All 5 patients were positive for SARS-CoV-2 antibodies and diagnosed with MIS-C: a 16-year-old male, 6-year-old female, 9-year-old female, 11-year-old-female, and an 8-year-old female. Ophthalmologic examinations were performed on all patients to assess for ocular findings, including intra-ocular pressures, slit lamp examination, anterior chamber evaluation, and Schirmer tests. Slit lamp examinations showed bilateral non-granulomatous acute anterior uveitis in all 5 patients and severe corneal punctuate epitheliopathy in 3 of the patients. These ocular findings mostly resolved with topical prednisolone acetate 1% treatment after about one week. The authors conclude that inflammatory ocular manifestations such as bilateral non-granulomatous acute anterior uveitis and dry eye can be detected in patients diagnosed with MIS-C secondary to COVID-19.	In this case series, the authors describe the ocular findings of 5 patients with MIS-C treated in a hospital in Turkey. Slit lamp examinations showed bilateral non-granulomatous acute anterior uveitis in all 5 patients and severe corneal punctuate epitheliopathy in 3 of the patients. These ocular findings mostly resolved with topical prednisolone acetate 1% treatment. The authors conclude that inflammatory ocular manifestations can be detected in patients diagnosed	Öztürk C, Yüce Sezen A, Savaş Şen Z, Özdem S. Bilateral Acute Anterior Uveitis and Corneal Punctate Epitheliopathy in Children Diagnosed with Multisystem Inflammatory Syndrome Secondary to COVID-19. Ocul Immunol Inflamm. 2021;1-5. doi:10.1080/09273948.2021.1909070

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						with MIS-C secondary to COVID-19.	
COVID-19; pregnancy; breast-feeding; child-bearing; vaccination	15-Apr-21	<a href="#">Appropriateness for SARS-CoV-2 vaccination for otolaryngologist and head and neck surgeons in case of pregnancy, breastfeeding, or childbearing potential: Yo-IFOS and CEORL-HNS joint clinical consensus statement</a>	European Archives of Oto-Rhino-Laryngology	Article	This clinical consensus statement aimed to offer guidance for COVID-19 vaccination of pregnant, breastfeeding, or childbearing healthcare personnel working in high-risk specialties, such as otolaryngology. A multidisciplinary, international panel of 33 specialists judged statements through a two-round modified Delphi method survey. Statements were designed to encompass the following topics: risk of SARS-CoV-2 infection and use of PPE in otolaryngology, SARS-CoV-2 infection and COVID-19 vaccines and respective risks for the mother/child dyad, and counseling for COVID-19 vaccination in pregnant, breastfeeding, or fertile healthcare workers. According to the statements with strong consensus, otorhinolaryngologists and head and neck surgeons who are pregnant, breastfeeding, or with childbearing potential should have the opportunity to receive COVID-19 vaccination, provided they receive up-to-date information. Those who decline vaccination should be strongly encouraged to keep in mind prevention measures such as hand washing, physical distancing, mask-wearing, and other PPE. Moreover, PPE should still be used even after the COVID-19 vaccination.	This clinical consensus statement aimed to offer guidance for SARS-CoV-2 vaccination to pregnant, breastfeeding, or childbearing healthcare personnel working in high-risk specialties, such as otolaryngology. Otorhinolaryngologists and head and neck surgeons who are pregnant, breastfeeding, or with childbearing potential should have the opportunity to receive COVID-19 vaccination and continue to use PPE even after vaccination.	Saibene AM, Allevi F, Ayad T, Baudoin T, et al. Appropriateness for SARS-CoV-2 vaccination for otolaryngologist and head and neck surgeons in case of pregnancy, breastfeeding, or childbearing potential: Yo-IFOS and CEORL-HNS joint clinical consensus statement. Eur Arch Otorhinolaryngol. 2021:1-9. doi:10.1007/s00405-021-06794-6.
COVID-19; maternal; mental health; child health	15-Apr-21	<a href="#">COVID-19 pandemic: Impacts on mothers' and infants' mental health during pregnancy and shortly thereafter [Free Access to Abstract Only]</a>	Clinical Child Psychology and Psychiatry	Review Article	The authors reviewed the impact of the COVID-19 pandemic on maternal mental health and child health during pregnancy and postpartum. Research data on perinatal mental health during the pandemic was reviewed in conjunction with studies on the relationship between maternal stress, infant development, and psychopathology. Pregnant women may be more prone to physical distancing, restriction of mobility, and difficulty in accessing medical services and social services. Practitioners and researchers should be familiar with the risk factors for perinatal mental disorders, including disasters, emergencies, increased exposure to domestic abuse, economic hardship, social isolation, and lack of support. Pregnant women with existing psychopathology or younger age who are prone to be affected by psychosocial stressors such as media may be at particularly increased risk and therefore need tailor-made prevention strategies and additional care. The mother's mental health during pregnancy and in the early stages of infancy may have a more substantial impact on child development than the direct effect of disaster-related prenatal stress. Moreover, pregnant and postpartum women are more vulnerable to the mental health consequences of disasters and may thus impact their infants' and toddlers' mental health. At this time, there are no prevention and treatment guidelines for perinatal crisis-related distress. A publication concerning perinatal women's mental health during COVID-19 suggests the importance of women maintaining support networks and social contacts as well as using cognitive behavior therapy and mindfulness	The authors reviewed the impact of the COVID-19 pandemic on maternal mental health and child health during pregnancy and postpartum. Pregnant and postpartum women are more vulnerable to the mental health consequences of disasters and may thus impact their infants' and toddlers' mental health. Researchers studying the effects of COVID-19 on pregnant/postpartum women and child development stress the importance of early mental health assessment and treatment and call for the urgent establishment of inclusive public interventions.	Vardi N, Zalsman G, Madjar N, et al. COVID-19 pandemic: Impacts on mothers' and infants' mental health during pregnancy and shortly thereafter. Clin Child Psychol Psychiatry. 2021:13591045211009297. doi:10.1177/13591045211009297.

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					techniques to relieve stress. Researchers studying the effects of COVID-19 on pregnant/postpartum women and child development stress the importance of early mental health assessment and treatment and call for the urgent establishment of inclusive public interventions.		
COVID-19; COVID-19 pandemic; obesity; childhood obesity; child; children; lockdowns; restrictions; physical activity; school closures	15-Apr-21	<a href="#">Consequences of Covid-19 on the childhood obesity epidemic</a>	British Medical Journal (BMJ)	Letter to the Editor	The authors argue that the COVID-19 pandemic has exacerbated the childhood obesity epidemic and respond to Senthilingam’s paper which described the growing obesity epidemic and identified that the COVID-19 pandemic presents opportunities for change in the UK. The most recent UK National Child Measurement Programme (data collected pre-pandemic) shows that 21% of children aged 10-11 years are already obese, increasing to 27.5% in more deprived areas. This obesity rate is likely to worsen after COVID-19 lockdowns, which have affected 75% of schoolchildren globally, and weight gain is correlated with time spent out of school and is greater among those of lower socioeconomic status. Before the pandemic, over 50% of children were not achieving physical activity guidelines. Despite restrictions allowing 60 minutes of exercise in a local area, nearly 30% of children report not leaving the house on a typical lockdown day. A lack of physical activity is more pronounced among ethnic minorities. The authors argue that the July 2020 UK Obesity Strategy does not go far enough to tackle underlying health inequalities linked with childhood obesity. The authors conclude that the COVID-19 pandemic is an opportunity to protect child wellbeing and emphasize supporting children of lower socioeconomic status and those from ethnic minority communities.	The authors argue that the COVID-19 pandemic has exacerbated the childhood obesity epidemic and respond to Senthilingam’s paper which described the growing obesity epidemic and identified that the COVID-19 pandemic presents opportunities for change in the UK. The authors emphasize supporting children of lower socioeconomic status and those from ethnic minority communities who are most vulnerable.	Patterson RR, Sornalingam S, Cooper M. Consequences of covid-19 on the childhood obesity epidemic. BMJ. 2021;373:n953. Published 2021 Apr 15. doi:10.1136/bmj.n953
SARS-CoV-2; COVID-19; genetics; immunology; neuroimaging; pathology; stroke; child; pediatric	15-Apr-21	<a href="#">Post-infectious inflammatory syndrome associated with SARS-CoV-2 in a paediatric patient with Down syndrome</a>	British Medical Journal (BMJ) Case Reports	Case Report	The authors describe a case of post-infectious marantic cardiac lesion causing a cerebrovascular accident (CVA) in a 3-year-old female with Down syndrome (DS) who had a previous SARS-CoV-2 infection 3 months prior in the United States. The child initially presented with recurrent fever and returned a week later with difficult or unclear speech, wide-spaced gait, and falling. Given high antibody titers in the setting of concern for cardiac dysfunction, a presumptive diagnosis of MIS-C was made even though the patient's SARS-CoV-2 PCR test was negative. The patient continued to have tachycardia with wide heart rate variability and pulse pressures but had few other overt features of MIS-C. Serum and CSF showed pancytopenia and elevated inflammatory biomarkers, an MRI showed CVA, and an echocardiogram showed a large thrombus. The patient had improvement of her mental status, mood, and balance within 5 days of completion of IVIg. She subsequently underwent surgical removal of the thrombus and clinically improved. She was discharged home and continued physical, occupational, and speech therapy with no disease recurrence. Children with DS are known to have immune dysregulation and a predilection for	The authors describe a case of post-infectious marantic cardiac lesion causing a cerebrovascular accident (CVA) in a 3-year-old female with Down syndrome (DS) who had a previous SARS-CoV-2 infection 3 months prior in the United States. Children with DS are known to have immune dysregulation and a predilection for autoimmune disease, potentially increasing the risk of developing post-infectious autoimmune phenomenon following primary infection with SARS-CoV-2. A detailed examination of the cardiac system is highly suggested in children with DS	Khoshnood M, Mahabir R, Shillingford NM, Santoro JD. Post-infectious inflammatory syndrome associated with SARS-CoV-2 in a paediatric patient with Down syndrome. BMJ Case Rep. 2021;14(4):e240490. Published 2021 Apr 15. doi:10.1136/bcr-2020-240490

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
					autoimmune disease, potentially increasing the risk of developing post-infectious autoimmune phenomenon following primary infection with SARS-CoV-2. Very high rates of congenital heart disease in children with DS create the potential for cardiac vegetations and may create a particularly susceptible location for marantic lesions following infection with SARS-CoV-2. A detailed examination of the cardiac system is highly suggested in children with DS with unexplained fevers and inflammatory labs.	with unexplained fevers and inflammatory labs.	
SARS-CoV-2; COVID-19; children; immune responses; immunology; inflammatory response	15-Apr-21	<a href="#">Reduced inflammatory responses to SARS-CoV-2 infection in children presenting to hospital with COVID-19 in China</a>	EClinicalMedicine	Research Article	The study aimed to investigate the immune response of children with COVID-19 during the early and late stages of SARS-CoV-2 infection and the difference between age groups to provide insight into the role of the immune response in children with COVID-19. The authors retrospectively analyzed the medical records of 127 laboratory-confirmed SARS-CoV-2-infected patients (median 7.3 [IQR 4.9] years) from Wuhan and Jingzhou of Hubei Province who presented between January 25-March 24, 2020. 57 patients had mild COVID-19 (median 8.49 [IQR 4.46] years), 63 had moderate COVID-19 (median 5.73 [IQR 4.85] years), and 7 had severe/critical COVID-19 (median 1.64 [IQR 2.85] years). All but 1 patient with severe disease were aged <2 years, and the majority (5/7) had significant co-morbidities. Despite 53% of all patients having viral pneumonia on CT scanning, only 2 patients had low lymphocyte counts. No differences were observed in the levels of plasma proinflammatory cytokines, including interleukin (IL)-2, IL-4, IL-6, tumor necrosis factor (TNF)- $\alpha$ , and interferon (IFN)- $\gamma$ between patients with mild, moderate or severe disease. The findings suggest that SARS-CoV-2 does not trigger a robust inflammatory response or ‘cytokine storm’ in children with COVID-19, which may underlie the generally better outcomes seen in children with this disease.	The study aimed to investigate the immune response of children with COVID-19 during the early and late stages of SARS-CoV-2 infection and the difference between age groups to provide insight into the role of the immune response in children with COVID-19. The findings suggest that SARS-CoV-2 does not trigger a robust inflammatory response or ‘cytokine storm’ in children with COVID-19, which may underlie the generally better outcomes seen in children with this disease.	Qian G, Zhang Y, Xu Y, et al. Reduced inflammatory responses to Sars-cov-2 infection in children presenting to hospital With COVID-19 in China. EClinicalMedicine. 2021. doi:10.1016/j.eclinm.2021.100831
COVID-19; pediatric; croup; atypical	15-Apr-21	<a href="#">A child with SARS-CoV2-induced croup</a>	Pediatric Pulmonology	Letter to the Editor	In this letter, the authors describe a 21-month-old male infected with SARS-CoV-2 who presented atypically with croup features in Hong Kong [date not specified]. The patient was admitted with a 1-day history of fever, noisy breathing, mild cough, and hoarseness. There were no gastrointestinal or urinary symptoms, and his clinical features were compatible with mild croup. He tested positive for SARS-CoV-2 by nasopharyngeal swab PCR on admission with a Ct value of 16.4. His chest radiograph showed a positive steeple sign and no consolidation, and he was administered one dose of oral dexamethasone on Day 1 of illness. His symptoms improved initially but deteriorated 12 hrs after the first dexamethasone dose with worsening of tachypnea and persistence of stridor with agitation. A second dose was given on Day 2, followed by gradual resolution of noisy breathing and tachypnea. His cough and sputum sounds subsided on Day 9, but the hoarseness persisted until Day 15. Nasopharyngeal SARS-CoV-2 PCR Ct value rose to 31.78 by Day 9 and to 35 by Day 18. Serology	In this letter, the authors described a 21-month-old male infected with SARS-CoV-2 who presented atypically with croup features in Hong Kong. This case highlights an uncommon manifestation and prolonged symptomatology of pediatric SARS-CoV-2 infection. The authors suggest that during the COVID-19 pandemic, infection control measures need to be appropriately heightened, and early diagnostic sampling for SARS-CoV-2 should be carried	Tsoi K, Chan KC, Chan L, et al. A child with SARS-CoV2-induced croup. Pediatr Pulmonol. 2021. doi:10.1002/ppul.25408.

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
					testing for SARS-CoV-2 antibody was positive by Day 19. The patient was asymptomatic by that time and was discharged. This case highlights an uncommon manifestation and prolonged symptomatology of pediatric SARS-CoV-2 infection. The authors suggest that during the COVID-19 pandemic, infection control measures need to be appropriately heightened, and early diagnostic sampling for SARS-CoV-2 should be carried out even in symptomatology that is atypical of COVID-19.	out even in symptomatology that is atypical of COVID-19.	
COVID-19; children; characteristics	15-Apr-21	<a href="#">Clinical characteristics of children infected with SARS-CoV-2 in Italy</a>	Italian Journal of Pediatrics	Original Research	This retrospective study evaluated the clinical characteristics of SARS-CoV-2 pediatric cases admitted to a children’s hospital in Italy from the end of February-July 2020. 66 patients (mean age=6.8 years, age range from ≤1 to 18 years; n=35 male) were included in the study. 14 patients (n=7 male) were asymptomatic, but they were hospitalized and monitored until they tested negative for SARS-CoV-2. The other patients showed symptoms of fever (n=25), cough (n=13), vomit (n=3), diarrhea (n=8), convulsions (n=5), and headache (n=7). 9 patients had co-infections: 3 with Rhinovirus, 1 with Campylobacter, 1 with Enterovirus, 1 with Escherichia coli, 2 with Epstein-Barr virus (EBV), and 1 with Herpes virus (HHV6). At admission, only 23 patients (n=15 males) presented bronchospasm and underwent chest x-ray. In 3 males and 5 females, a modest thickening of the peri-broncho-vascular interstitium was found. Lactate dehydrogenase values were higher than the normal range in both males and females and were significantly higher in females than males (p=0.05). Leukopenia was present in both sexes and was at a higher level in males than females for patients aged 0-1 year (p=0.0132). These findings suggest that SARS-CoV-2 infection in children is a non-severe inflammatory disease in both males and females. However, to have significant differences for other parameters, the number of patients must be increased, and further prospective studies should be conducted.	This retrospective study evaluated the clinical characteristics of SARS-CoV-2 pediatric cases admitted to a children’s hospital in Italy from the end of February-July 2020. The findings indicate that SARS-CoV-2 infection in children is a non-severe inflammatory disease in both males and females. However, to have significant differences for other parameters, the number of patients must be increased, and further prospective studies should be conducted.	De Jacobis IT, Vona R, Cittadini C, et al. Clinical characteristics of children infected with SARS-CoV-2 in Italy. Ital J Pediatr. 2021;47(1):90. doi:10.1186/s13052-021-01045-0.
COVID-19; pediatric; vaccination; measles	15-Apr-21	<a href="#">Pediatric Vaccination During the COVID-19 Pandemic</a>	Pediatrics	Original Research	This study investigated the impact of the COVID-19 pandemic on pediatric vaccination coverage in the United States. Vaccine uptake and vaccination coverage for all recommended vaccines and, separately, for measles-containing vaccines at milestone ages were assessed in a large cohort of children aged 0-18 years at Kaiser Permanente Southern California during January-August 2020 and compared with those in the same period in 2019. Differences in vaccine uptake and vaccination coverage (recommended vaccines and measles-containing vaccines) in pre-pandemic (January-March), stay-at-home (April-May), and reopening (June-August) periods in 2020 and 2019 were compared. While the total and measles-containing vaccine uptake declined markedly in all children during the pandemic period in 2020 compared with 2019, total vaccine uptake recovered in children aged 0-23 months to nearly the same number given in 2019. After an initial decline	This study investigated the impact of the COVID-19 pandemic on pediatric vaccination coverage in the United States. Pediatric vaccine uptake decreased dramatically during the pandemic, resulting in decreased vaccination coverage that persisted or worsened among several age cohorts during the reopening period. Additional strategies, including immunization tracking, reminders, and recall	Ackerson BK, Sy LS, Glenn S, et al. Pediatric Vaccination During the COVID-19 Pandemic. Pediatrics. 2021:e2020047092. doi:10.1542/peds.2020-047092.

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
					among children aged 2-18 years, measles containing-vaccine uptake recovered, but total vaccine uptake remained lower. Vaccination coverage (recommended and measles-containing vaccines) declined rapidly and remained reduced among most milestone age cohorts $\leq 24$ months during the pandemic period, while recommended vaccination coverage in children aged 7-17 years decreased during the reopening period in 2020 compared with 2019. Therefore, pediatric vaccine uptake decreased dramatically during the pandemic, resulting in decreased vaccination coverage that persisted or worsened among several age cohorts during the reopening period. Additional strategies, including immunization tracking, reminders, and recall for needed vaccinations, particularly during virtual visits, will be required to increase vaccine uptake and vaccination coverage and reduce the risk of outbreaks of vaccine-preventable diseases.	for needed vaccinations, particularly during virtual visits, will be required to increase vaccine uptake and vaccination coverage and reduce the risk of outbreaks of vaccine-preventable diseases.	
COVID-19; vertical transmission; pregnancy' neonate	15-Apr-21	<a href="#">Vertical Transmission of SARS-CoV-2: A Systematic Review</a>	Revista Brasileira de Ginecologia e Obstetricia	Systematic Review	The authors conducted a systemic review of the available evidence on the vertical transmission of SARS-CoV-2. An electronic search was performed on June 13, 2020, on the Embase, PubMed, and Scopus databases using the following search terms: (Coronavirus OR COVID-19 OR COVID19 OR SARS-CoV-2 OR SARS-CoV2 OR SARSCoV2) AND (vertical OR pregnancy OR fetal). 2,073 records were found, of which 177 were included. 9 suspected cases of possible vertical transmission were found. The only case with sufficient evidence of vertical transmission was reported in France [date not specified]. A 23-year-old pregnant woman (35 weeks gestation) was admitted with fever and severe cough and tested positive for SARS-CoV-2 qRT-PCR analysis of blood and swab (vaginal and nasopharynx). She delivered via cesarean section due to acute fetal distress and presented with a positive SARS-CoV-2 qRT-PCR result on the amniotic fluid. Nasopharyngeal and rectal swabs collected for the neonate within 1 hr, 3 days, and 18 days of life tested positive for SARS-CoV-2. The neonate presented with neurological symptoms and impairment on the MRI scan of the central nervous system. The histological examination of the placenta showed a severe inflammatory process, and qRT-PCR showed the presence of SARS-CoV-2, suggesting placental transmission. The authors identified 1 probable case of vertical transmission and concluded that the risk of vertical transmission for SARS-CoV-2 is probably very low. Well-designed observational studies evaluating large samples are still necessary to determine the risk of vertical transmission depending on the gestational age at infection.	The authors conducted a systemic review of the available evidence on vertical transmission of SARS-CoV-2. The authors identified 1 probable case of vertical transmission and concluded that the risk of vertical transmission for SARS-CoV-2 is probably very low. Well-designed observational studies evaluating large samples are still necessary to determine the risk of vertical transmission depending on the gestational age at infection.	Barcelos IDES, Penna IAA, Soligo AG, . Vertical Transmission of SARS-CoV-2: A Systematic Review. Rev Bras Ginecol Obstet. 2021;43(3):207-215. English. doi:10.1055/s-0040-1722256.

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
COVID-19; pediatric; cystic fibrosis	15-Apr-21	<a href="#">Children with Cystic Fibrosis Hospitalised with COVID-19: Multicentre Experience</a>	Journal of Paediatrics and Child Health	Letter to the Editor	The authors evaluated the impact of the COVID-19 pandemic on children with cystic fibrosis (CF) in 3 pediatric admitting centers in Oman [date not specified]. Only 3 patients (1.3%) with CF had COVID-19-related hospitalization. Only 1 child required oxygen supplements through non-invasive ventilation and monitoring in the ICU. This patient (aged 13 years) had moderate-severe CF with forced expiratory volume in the first second of 50% and severe asthma on omalizumab. He was admitted for about 2 weeks, where he was managed with oxygen, salbutamol, dual antipseudomonal antibiotics, and chest physiotherapy. The other 2 children (aged 5 and 1.8 years) were managed for mild disease and required hospitalization for only 2-5 days. The authors hypothesized that the low SARS-CoV-2 infection among the CF patients could be due to the adherence to safety measures such as mask-wearing, social distancing, and proper hand hygiene. Also, vascular endothelium may be the primary target for the virus. CF patients have continuous endothelial injury secondary to chronic inflammation, which may impair entry by the virus. Children with CF, especially those with severe lung function, should nonetheless continue to adhere to infection control measures. Pediatricians should consider virtual follow-up visits, delaying non-urgent bronchoscopies in children with CF, and canceling unnecessary clinic visits as long as this does not affect the patients' care.	The authors evaluated the impact of the COVID-19 pandemic on children with cystic fibrosis (CF) in 3 pediatric admitting centers in Oman. The authors hypothesized that the low SARS-CoV-2 infection among the CF patients could be due to the adherence to safety measures such as mask-wearing, social distancing, and proper hand hygiene. Pediatricians should consider virtual follow-up visits, delaying non-urgent bronchoscopies in children with CF, and canceling unnecessary clinic visits as long as this does not affect the patients' care.	Al Yazidi LS, Al Maskari N, Al Reesi M. Children with Cystic Fibrosis Hospitalised with COVID-19: Multicentre Experience. J Paediatr Child Health. 2021. doi:10.1111/jpc.15495.
COVID-19; Ethnicity; New York City; Perinatal outcomes; Race; SARS-CoV-2.	15-Apr-21	<a href="#">Effect of SARS-CoV-2 Infection on Pregnancy Outcomes in an Inner-City Black Patient Population</a>	Journal of Community Health	Original Research	Comorbidities and the peripartum course of the Black population in the context of the COVID-19 pandemic remain understudied. The authors conducted a retrospective cohort study of hospitalized patients who gave birth at Kings County Hospital Center (KCHC) from 10 April to 10 June 2020. They hypothesized that SARS-CoV-2 infection would confer worse maternal and neonatal outcomes in a predominantly Black and underserved population in Brooklyn, New York City, USA. The study population included 335 women (median age 30 years; 89.8% Black) who were admitted to KCHC for labor. 56 women (16.7%; median age 29 years) tested positive for SARS-CoV-2. The most common comorbidities were obesity (62.6%), gestational diabetes (14%), asthma (12.8%), and gestational hypertension/preeclampsia (12.5%). Black women accounted for 92.9% (52/56) of women in the SARS-CoV-2-positive group and 89.1% of women in the SARS-CoV-2-negative group (246/279), which was not significantly different (p=0.899). Between the SARS-CoV-2-positive and -negative cohorts, rates of preterm birth <37 weeks (14.3% vs 15%, p=1.00), C-section (28.6% vs 34.8%, p=0.186), vaginal delivery (66.1% vs 63.4%, p=0.186), and postpartum hemorrhage (13.7% vs 14.5%, p=1.00) were not significantly different. While SARS-CoV-2 infection did not confer an increased risk of adverse obstetric/neonatal outcomes in this predominantly Black cohort, researchers need to be aware that the	This is a retrospective cohort study of predominantly Black hospitalized women who gave birth at Kings County Hospital in Brooklyn, New York City, USA, from April to June 2020. Contrary to the authors' hypothesis, SARS-CoV-2 infection among the study population did not confer an increased risk of adverse obstetric or neonatal outcomes, despite the prevalence of comorbidities.	Liu C, Andrusier M, Silver M, et al. Effect of SARS-CoV-2 Infection on Pregnancy Outcomes in an Inner-City Black Patient Population. J Community Health. 2021 Apr 15:1-7. doi: 10.1007/s10900-021-00988-z. PMID: 33855649; PMCID: PMC8046575.

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					impact of SARS-CoV-2 infection on pregnancy outcomes is complex and may differ on a community level.		
COVID-19; pregnancy; Australia	15-Apr-21	<a href="#">COVID-19 "baby boom"</a>	The Medical Journal of Australia	Letter to the Editor	The authors investigated the impact of the COVID-19 pandemic on the fertility rate in Australia. The authors reviewed the use of the 5 Medicare Benefits Schedule (MBS) item numbers for "microbiological serology during a pregnancy" (69405, 69408, 69411, 69413 and 69415), as one of these numbers is usually billed at the first antenatal visit. In June 2020, the use of these item numbers increased by 25.4% and later declined to a 9.6% increase in September 2020, compared with 2019. In the period from 2018 up to the start of the pandemic, the mean fluctuation in billing volume in the same months over different years was about 3%. Therefore, the larger-than-expected surge in antenatal serology orders since the start of the COVID-19 pandemic likely represents a significant change in behavior. Since antenatal serology testing is usually done at around 6-10 weeks of pregnancy, this correlates with an increase in conception starting in late March to early April 2020, during the so-called first pandemic wave in Australia. Requests for antenatal serology testing increased by 12,869 from June to September 2020 compared with the same period in 2019. Factoring in miscarriages, this may mean there will be an additional 11,000 Australian babies born in the third quarter of the financial year 2020-21, compared with the same period in the previous financial year.	The authors investigated the impact of the COVID-19 pandemic on the fertility rate in Australia. Requests for antenatal serology testing increased by 12,869 from June to September 2020 compared with the same period in 2019. Factoring in miscarriages, this may mean there will be an additional 11,000 Australian babies born in the third quarter of the financial year 2020-21 compared with the same period in the previous financial year.	Moaven L, Brown J. COVID-19 "baby boom". Med J Aust. 2021. doi:10.5694/mja2.51010.
serology; SARS-CoV-2; schools; symptomatic infection	15-Apr-21	<a href="#">SARS-CoV-2 infection in schools in a northern French city: a retrospective serological cohort study in an area of high transmission, France, January to April 2020</a>	Eurosurveillance	Original Research	This retrospective observational study documents the extent of SARS-CoV-2 transmission, linked to an affected high school (n = 664 participants) and primary schools (n = 1,340 study participants), in the context of unsuspected SARS-CoV-2 circulation and limited control measures in France. Between March 30 and April 30, 2020, all school staff and pupils and their parents and relatives were invited for SARS-CoV-2 antibody testing and completed a questionnaire covering symptom history since January 13, 2020. 63% of high schoolers (421/664) were >18 years of age, while in the primary schools, 40% (538/1340) were <=12 years of age. In the high school, infection attack rates were 38.1% (91/239), 43.4% (23/53), and 59.3% (16/27), in pupils, teachers, and non-teaching staff respectively vs 10.1% (23/228) and 12.0% (14/117) in the pupils' parents and relatives (p < 0.001). Among the 6 primary schools in the area, 3 children attending separate schools at the start of the pandemic, while symptomatic, might have introduced SARS-CoV-2 there. However, symptomatic secondary cases related to them could not be definitely identified. In the primary schools overall, antibody prevalence in pupils sharing classes with symptomatic cases was higher than in pupils from other classes: 15/65 (23.1%) vs. 30/445 (6.7%) (p < 0.001). Among 46 SARS-CoV-2 seropositive pupils <12 years old, 20 were asymptomatic. Whether past HKU1 and OC43 seasonal coronavirus	This retrospective observational study of high school and primary school students, staff, and families in France found that the high school SARS-CoV-2 infection attack rates were 38.1%, 43.4%, and 59.3%, in pupils, teachers, and non-teaching staff, respectively. Among 46 SARS-CoV-2 seropositive pupils < 12 years old, 20 were asymptomatic. The authors suggest that ongoing monitoring for the possible resurgence in infections is needed, as well as strategies and preventive measures to limit transmission in the school setting.	Fontanet A, Tondeur L, Grant R, et al. SARS-CoV-2 infection in schools in a northern French city: a retrospective serological cohort study in an area of high transmission, France, January to April 2020. <i>Euro Surveill.</i> 2021;26(15):10.2807/1560-7917.ES.2021.26.15.2001695. doi:10.2807/1560-7917.ES.2021.26.15.2001695

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					infection protected against SARS-CoV-2 infection in 6–11-year-olds could not be inferred. The authors suggest that ongoing monitoring for the possible resurgence in infections is needed, as well as strategies and preventive measures to limit transmission in the school setting.		
COVID-19; pregnancy; laboratory; imaging studies	15-Apr-21	<a href="#">Comparison of Laboratory and Radiological Findings of Pregnant and non-pregnant women with COVID-19</a>	Revista Brasileira de Ginecologia e Obstetricia	Original article	The authors conducted a retrospective cross-sectional study in a Turkish hospital from March 18- May 1, 2020, to compare laboratory and radiological findings between pregnant women (PW) and non-pregnant women (NPW) of reproductive age hospitalized for COVID-19. 34 COVID-19 patients were included in the study, 15 (44.11%) were PW, and 19 (55.8%) were NPW. The mean age of PW was 27.6± 0.999 years, and NPW was 37.63± 2.009 years, with a statistically significant age difference (p=0.001). Statistical analysis of vital signs between PW and NPW showed a difference between the maximum values of arterial blood pressure (p=0.039) and the minimum respiratory rate per minute (p=0.013); none of the other vital signs were statistically significant. Platelet counts were normal for PW and NPW, but PW had lower platelet counts, which was significant (p=0.026). The mean D-dimer values were significantly higher (p<0.05) for NPW. While there were no differences in CT findings between NPW and PW, there was a significant difference between c-reactive protein values of PW with CT findings in all 3 stages of COVID-19 (early, progressive, and severe) (p=0.002). The authors suggest that the lower D-dimer levels in PW may explain the lower morbidity and mortality from COVID-19 for PW, but more research is needed to confirm this. NPW had a higher incidence of pre-existing conditions (10 NPW and 2 PW) in this study. In general, the authors found that pregnancy did not affect the laboratory or radiological findings while sick with COVID-19. However, the authors recommend taking tomographic staging into consideration while creating treatment algorithms for PW with COVID-19.	The authors conducted a study in a Turkish hospital to compare laboratory and radiological findings between pregnant women (PW) and non-pregnant women (NPW) hospitalized for COVID-19. PW had lower platelet counts and lower D-dimer values. While there were no differences in CT findings between groups, there was a significant difference between c-reactive protein values of PW with CT findings in all 3 stages of COVID-19, indicating CT staging should be taken into consideration when treating PW for COVID-19.	Ozer KB, Sakin O, Koyuncu K, Cimenoglu B, Demirhan R. Comparison of Laboratory and Radiological Findings of Pregnant and Non-Pregnant Women with Covid-19. <i>Rev Bras Ginecol Obstet.</i> 2021;43(3):200-206. doi:10.1055/s-0041-1726054
Pregnancy, twins, twin-twin transfusion syndrome, maternal outcomes, bacteremia, preterm birth, neonatal mortality	14-Apr-21	<a href="#">Complicated Monochorionic–Diamniotic Twins in a Pregnant Woman with COVID-19 in the Second Trimester</a>	American Journal of Perinatology	Case Report	In this case, a 36-year-old patient with monochorionic–diamniotic (MCDA) twins developed mild COVID-19 at 15 weeks of gestation following recent travel. She presented to her obstetric clinic at 16 1/7 weeks gestation and ultrasound demonstrated stage II twin–twin transfusion syndrome. SARS-CoV-2 testing returned positive. At 18 weeks gestation, she underwent laser ablation with simultaneous McDonald cerclage placement. Laser ablation was complicated by a subchorionic hematoma. Amniotic fluid collected from Twin A's sac was negative for SARS-CoV-2. The patient presented again at 20 5/7 weeks gestation with preterm contractions and vaginal bleeding. A repeat nasopharyngeal swab was negative for SARS-CoV-2. 2 days after admission, the patient developed fever with chills and myalgias. Chest X-ray was concerning for possible pneumonia and both blood and urine cultures were positive for E. coli. She was started on ceftriaxone	In this case report, the authors present a 36-year-old pregnant patient with monochorionic–diamniotic (MCDA) twins who developed mild COVID-19 at 15 weeks gestation. The pregnancy was further complicated by stage II twin–twin transfusion syndrome treated with laser ablation, which was complicated by a subchorionic hematoma. The patient also developed E. coli bacteremia, resulting in septic shock and preterm labor	Mok T, Contreras D, Chmait RH, et al. Complicated Monochorionic-Diamniotic Twins in a Pregnant Woman with COVID-19 in the Second Trimester. <i>Am J Perinatol.</i> 2021; doi:10.1055/s-0041-1726428

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
					and gentamicin for bacteremia. On hospital day 4, she delivered MCDA twins at 21 2/7 weeks of gestation, both of whom expired. Placental biopsies were negative for SARS-CoV-2 and histology demonstrated acute chorioamnionitis with chorionic and umbilical vasculitis. Placental gram staining demonstrated intraluminal Gram-negative bacilli. The patient was admitted to the ICU for septic shock and discharged on day 8 postpartum. The authors conclude that this report highlights a case of SARS-CoV-2 in the 2 <sup>nd</sup> trimester of a MCDA twin pregnancy without evidence of vertical transmission but complicated by adverse pregnancy outcomes.	followed by preivable delivery at 21 weeks gestation. The authors conclude that this report highlights a case of SARS-CoV-2 in the 2 <sup>nd</sup> trimester of a MCDA twin pregnancy without evidence of vertical transmission but complicated by adverse pregnancy outcomes.	
COVID-19; pediatric; Guillain Barre Syndrome; Turkey	14-Apr-21	<a href="#">Axonal Guillain-Barre syndrome associated with SARS-CoV-2 infection in a child</a>	Journal of Medical Virology	Case Report	The authors reported the clinical features of a pediatric patient with axonal Guillain Barre Syndrome (GBS) associated with SARS-CoV-2 infection in Turkey [date not specified]. The 6-year-old male presented with symmetric ascending paralysis that progressed over a 4-day course, and 2 days of fever. He had bilateral lower and upper limb flaccid weakness of 1/5 with absent deep tendon reflexes. He had severe respiratory muscle weakness requiring invasive mechanical ventilation. He tested positive for SARS-CoV-2 RT-PCR by nasopharyngeal swab. Cerebrospinal fluid analysis showed elevated protein without pleocytosis. He was diagnosed with GBS associated with SARS-CoV-2 infection. A nerve conduction study was suggestive of acute motor axonal neuropathy. 10 consecutive therapeutic plasma exchange sessions with 5% albumin replacement were performed, followed by 4 sessions on alternate days. On day 12, methylprednisolone was given. On day 18, IV immunoglobulin was given and repeated 14 days later, due to severe motor weakness. On day 60, the patient was discharged from the hospital with weakness of neck flexor and extensor muscles of 3/5, and weakness of upper limbs and lower limbs of 2/5, on home-ventilation. The disease course for this patient was severe with a rapid progression, an early peak, and prolonged duration of weakness. This case presented the youngest known patient to date with a possible para-infectious association between axonal GBS and SARS-CoV-2 infection.	The authors reported the clinical features of a pediatric patient with axonal Guillain Barre Syndrome (GBS) associated with SARS-CoV-2 infection in Turkey. The disease course was severe with a rapid progression, an early peak, and prolonged duration of weakness. This case presented the youngest known patient to date with a possible para-infectious association between axonal GBS and SARS-CoV-2 infection.	Akçay N, Menetoğlu ME, Bektaş G, et al. Axonal Guillain-Barre syndrome associated with SARS-CoV-2 infection in a child. J Med Virol. 2021. doi:10.1002/jmv.27018.
Pediatrics, children, ventilation, respiratory support, clinical practice, critical illness	14-Apr-21	<a href="#">Invasive and noninvasive ventilation strategies for acute respiratory failure in children with coronavirus disease 2019</a>  <a href="#">[Free Access to Abstract Only]</a>	Current Opinions in Pediatrics	Practice Recommendations	In this article, the authors recommend strategies for escalation of respiratory support for acute respiratory failure associated with critical COVID-19 in children. For children with COVID-19 and hypoxemia (SpO <sub>2</sub> ≤ 90%), supplemental oxygen should be initiated via nasal cannula. If hypoxemia persists, oxygen via simple facemask may be initiated. Children with persistent hypoxemia or labored work of breathing despite supplemental oxygen can be escalated to humidified high flow nasal cannula (HFNC), and if increased work of breathing and hypoxemia continue, can then be escalated to non-invasive positive pressure ventilation (CPAP or BiPAP). Evaluating for clinical improvement should occur rapidly (<60 min), and intubation should be pursued if non-invasive support fails to achieve target SpO <sub>2</sub> 92–96% and FiO <sub>2</sub> <60%. A	In this article, the authors recommend strategies for escalation of respiratory support for acute respiratory failure associated with critical COVID-19 in children. High flow nasal cannula or non-invasive support with CPAP or BiPAP can be trialed with close monitoring for clinical deterioration. Mechanical ventilation strategies should follow lung-protective	Blumenthal JA, Duvall MG. Invasive and noninvasive ventilation strategies for acute respiratory failure in children with coronavirus disease 2019. Curr Opin Pediatr. 2021; doi:10.1097/MOP.0000000000001021

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					lung-protective ventilation strategy targeting expiratory tidal volume 5–7 ml/kg ideal body weight, inspiratory plateau pressure <28–32 cm H <sub>2</sub> O, driving pressure <15 cm H <sub>2</sub> O, and permissive hypercapnia (pH>7.2) is recommended. Prone positioning can also be considered. High-frequency oscillatory ventilation could be considered for patients requiring high ventilator pressures or when hypoxemia is refractory to positive end expiratory pressure (PEEP), but aerosol generation should be mitigated by adding a filter. The authors conclude that as data and experience managing children with COVID-19 accumulates, pediatric clinicians should continue to update their hospital's approach.	ventilation guidelines. The authors conclude that as data and experience managing children with COVID-19 accumulates, pediatric clinicians should continue to update their hospital's approach.	
ACE2; SARS-CoV-2; TMPRSS2; furin; placenta; trophoblast	14-Apr-21	<a href="#">Term Human Placental Trophoblasts Express SARS-CoV-2 Entry Factors ACE2, TMPRSS2, and Furin</a>	mSphere	Original Research	This biological analysis explored the expression of ACE2 and TMPRSS2 in placental villi in order to determine whether trophoblasts are susceptible to SARS-CoV-2 infection and could allow transmission to the fetus. Researchers utilized a combination of RNA sequencing, real-time quantitative PCR (RT-qPCR), in situ hybridization-based RNAscope, and immunofluorescence on term human placenta samples (n=5). Transcripts for ACE2, TMPRSS2, and furin, intracellular ACE2 and TMPRSS2 mRNA, and ACE2 and TMPRSS2 proteins were identified in term placental villi and primary human trophoblast (PHT) cells. Cultured PHT cells were permissive to pseudo-virus SARS-CoV-2 expressing the S protein. PHT cell differentiation, which increases as pregnancy progresses, was associated with higher ACE2 and furin expression, but not associated with TMPRSS2 expression. TMPRSS2 is necessary to facilitate SARS-CoV-2 cell entry and subsequent viral replication. The authors conclude that their results show that the villous trophoblasts facing maternal blood express proteins that enable SARS-CoV-2 cell entry. Therefore, it is likely that SARS-CoV-2 enters trophoblasts, but that a failure to activate post-entry pathways prevents viral replication in the placenta.	This biological analysis explored the expression of ACE2 and TMPRSS2 in placental villi in order to determine whether trophoblasts are susceptible to SARS-CoV-2 infection and could allow transmission to the fetus. The authors conclude that it is likely that SARS-CoV-2 enters trophoblasts, but that a failure to activate post-entry pathways prevents viral replication in the placenta.	Ouyang Y, Bagakot T, Fitzgerald W, et al. Term Human Placental Trophoblasts Express SARS-CoV-2 Entry Factors ACE2, TMPRSS2, and Furin. mSphere. 2021 Apr 14;6(2):e00250-21. doi: 10.1128/mSphere.00250-21.
Mitochondrial; Stroke; SARS-CoV-2; Pediatric; FARS2	14-Apr-21	<a href="#">Metabolic stroke-like episode in a child with FARS2 mutation and SARS-CoV-2 positive cerebrospinal fluid</a>	Molecular Genetics and Metabolism Reports	Case Report	In this case report, the authors aim to identify a possible association between SARS-COV-2 infection and a metabolic stroke-like episode, even in the absence of a phenotype classically associated with this type of episode. Though children appear to have infrequent neurologic complications associated with SARS-CoV-2 infection, it appears that those that have manifestations are a result of changes to the inflammatory cascade. This case report describes an 11-year-old male with a history of FARS2-related combined oxidative phosphorylation deficiency type 14, spastic paraparesis and mild developmental delay. This patient presented to a medical facility with symptoms of increased work of breathing, poor oxygen saturation, lactic acidosis and acute neurologic changes. The patient was confirmed positive for SARS-CoV-2. Neuroimaging revealed areas of restricted diffusion in the periaqueductal grey matter, dorsal midbrain and bilateral red	The authors aimed to identify a possible association between SARS-COV-2 infection and a metabolic stroke-like episode, even in the absence of a phenotype classically associated with this type of episode. The authors suggest that further research is needed to determine if the virus or the inflammatory cascade is responsible for the acute neurologic deterioration.	Powers KT, Santoro JD. Metabolic stroke-like episode in a child with FARS2 mutation and SARS-CoV-2 positive cerebrospinal fluid [published online ahead of print, 2021 Apr 14]. Mol Genet Metab Rep. 2021;27:100756. doi:10.1016/j.ymgmr.2021.100756

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					nuclei. Lumbar puncture revealed elevated lactic acid and positive SARS-CoV-2 in the cerebrospinal fluid (CSF). He developed a rubral tremor and signs of autonomic dysfunction. The authors report that this case is novel as it was the first case of its kind to present a stroke-like episode with FARS2 deficiency; additionally, the capturing of the virus in CSF itself may be an indication that SARS-CoV-2 virus could have potentially triggered the metabolic failure. The authors suggest that further research is needed to determine if the virus or the inflammatory cascade is responsible for the acute neurologic deterioration.		
COVID-19; child behavior; social distancing; Brazil	14-Apr-21	<a href="#">Child behavior during the social distancing in the COVID-19 pandemic</a>	Revista Brasileira de Enfermagem	Original Research	This study described the daily activities performed by children aged 6 to <12 years in Brazil and analyzed their behavior during social distancing in the COVID-19 pandemic. Data from 530 children (50.3% female, 33.9% between the age of 8-9 years) were analyzed. 73% were in fulltime social distancing. Caregivers reported having introduced a routine of studies (online classes and video classes) and games for children (cell phone, tablet, computer and/or television, movies, readings, play activities, and board games). However, 52% of children reported changes in anxiety. Children with anxiety were 2.12 times more likely to have alterations in sleep than those without anxiety (p<0.001). Anxiety was also associated with changes in appetite (p<0.001). Anxious children were 3.12 times more likely to have appetite changes than those who did not have this disorder. There were also indications that children who did not practice physical activities were more likely to have anxiety, but this was not found to be statistically significant. These results indicate that parents and guardians need to recognize the signs of changes in their children's behavior due to social distancing during the COVID-19 pandemic.	This study described the daily activities performed by children aged 6 to <12 years in Brazil and analyzed their behavior during social distancing in the COVID-19 pandemic. 52% of children presented with anxiety, which was significantly associated with changes in sleep and appetite. These results indicate that parents and guardians need to recognize the signs of changes in their children's behavior due to social distancing during the COVID-19 pandemic.	Paiva ED, Silva LRD, Machado MED, et al. Child behavior during the social distancing in the COVID-19 pandemic. Rev Bras Enferm. 2021;74Suppl 1(Suppl 1):e20200762. English, Portuguese. doi:10.1590/0034-7167-2020-0762.
COVID-19; childhood immunizations; routine immunizations;	14-Apr-21	<a href="#">Childhood immunisations in India during the COVID-19 pandemic</a>	British Medical Journal (BMJ) Paediatrics	Editorial	In this article, the authors underscored the importance of childhood immunizations in India, particularly due to the disruptions in healthcare services during the COVID-19 pandemic. Highlighting findings citing that an additional 49,000 child deaths and 2,300 maternal deaths in a month could be attributable to severely disrupted services, they underscored the importance of restoring vaccination services during the COVID-19 pandemic in India, lest it undoes the gains made through national immunization programs. The authors recommended using coordinated campaigns to target children who missed critical routine vaccines during the lockdown and low coverage areas to prevent additional public health disasters, prioritizing measles vaccine catch-up. Additionally, they recommended catch-up programs to minimize the time-at-risk for vaccine-preventable diseases, using strategies such as appointment-only visits/designated walk-ins for healthy children, minimizing overcrowding, separating immunization and sick children visits, prioritizing communication efforts to address caregivers' fears of contracting COVID-19, and sending reminders	In this article, the authors underscored the importance of maintaining routine childhood immunizations in India through coordinated national campaigns and vaccine catch-up programs. They recommended liaising routine immunization campaigns with the COVID-19 vaccine rollout, particularly in hard-to-reach areas, and underscored the need for concerted efforts from governing and academic groups to ensure implementation of routine immunization and catch-up programs to sustain gains in	Shet A, Dhaliwal B, Banerjee P, et al. Childhood immunisations in India during the COVID-19 pandemic. BMJ Paediatrics Open 2021;5:e001061. doi: 10.1136/bmjpo-2021-001061

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					to caregivers of the importance of routine vaccinations. They also suggest empowering community health workers to trace children with missing vaccination appointments to aid in restoring baseline vaccination levels. They recommended liaising routine immunization campaigns with the COVID-19 vaccine roll-out, particularly in hard-to-reach areas, and underscored the need for concerted efforts from governing and academic groups to ensure implementation of routine immunization and catch-up programs to sustain gains in vaccination coverage and provide a robust blueprint for the national roll-out of the COVID-19 vaccine.	vaccination coverage and provide a robust blueprint for the national rollout of the COVID-19 vaccine.	
Pregnancy, severe disease, ECMO, ICU, second wave, variant, peripartum	14-Apr-21	<a href="#">Were pregnant women more affected by COVID-19 in the second wave of the pandemic?</a>	The Lancet	Correspondence	In this correspondence, the authors discuss the second wave of COVID-19 (Sept 1, 2020–Jan 30, 2021) in the United Kingdom and the impact on pregnant women. At the Royal Brompton Hospital in London, the authors report that the numbers of pregnant/peripartum women with severe COVID-19 increased during the second wave: They made up 4/34 (12%) of total referrals in the first wave (prior to Sept 1, 2020) vs 19/62 (31%) in the second. Referrals for extracorporeal membranous oxygenation (ECMO) were also significantly more common (p=0.047) in the second wave. In addition, the latest Intensive Care National Audit & Research Centre report from March 5, 2021, highlighted an increase in the number of pregnant or recently pregnant women aged 16–49 years requiring admission to intensive care between the first wave (n=70) and second wave (n=277). The authors postulate that the increase may be due to increases in total numbers of COVID-19, more pathogenic variants, or increased testing and reporting, however the exact cause remains unclear. The authors conclude that early data suggest that pregnant and peripartum women are experiencing more severe illness in the second wave of the COVID-19 pandemic, however further studies are urgently required to define the cause.	In this correspondence, the authors discuss the increase they observed in pregnant and peripartum women with severe COVID-19 in the United Kingdom during the second wave of the pandemic (after September 1, 2020). At their hospital, they also observed more referrals for ECMO. The authors postulate that the increase may be due to increases in total numbers of COVID-19, more pathogenic variants, or increased testing and reporting, however the exact cause remains unclear. They conclude that further studies are urgently required to define the cause.	Kadiwar S, Smith JJ, Ledot S, et al. Were pregnant women more affected by COVID-19 in the second wave of the pandemic? Lancet. 2021; doi.org/10.1016/S0140-6736(21)00716-9
COVID-19; eating disorders; young people; adolescents; public health approach	14-Apr-21	<a href="#">COVID-19 and eating disorders in young people</a>	The Lancet Child and Adolescent Health	Commentary	In this commentary, the authors discuss the rise in child and adolescent eating disorder service referrals over the past year during the COVID-19 pandemic. Drivers of this spike may include social isolation, food insecurity, challenges of maintaining a healthy weight and exercise regimen and difficulty in accessing in-person health services. Much of the research performed over the last year on the mental health of children and adolescents has not directly addressed eating disorders. Focus on exacerbated health outcomes in obese patients with COVID propelled messages stressing the importance of exercise and healthy eating. However, these messages have been shown to be ineffective in long-term weight loss in young people and may actually increase the risk of eating disorders among this population. Health-care admissions as a result of dietary restrictions in young people have increased. Further, increases in referrals for eating disorders have increased as COVID-19 restrictions have relaxed; this may be secondary to	The authors discussed the rise in child and adolescent eating disorder service referrals over the past year during the COVID-19 pandemic. It is essential that parents and schools feel equipped to provide information on body image, healthy eating and exercise to children and adolescents; further, an integrated public health approach is necessary to tackle eating disorders in this population.	Solmi F, Downs J, and Nicholls D. COVID-19 and eating disorders in young people. Lancet Child Adolesc Health. 2021;5(5): 316-318. Published 2021 May. doi.org/10.1016/S2352-4642(21)00094-8

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					increased anxiety regarding returning to school as well as greater health-seeking in general. It is essential that parents and school environments feel equipped to provide information on body image, healthy eating and exercise to children and adolescents; further, an integrated public health approach is necessary to tackle eating disorders in this population.		
COVID-19; economic policy; women; children; gender inequities	14-Apr-21	<a href="#">Health of women and children is central to covid-19 recovery</a>	British Medical Journal (BMJ)	Analysis	In this analysis, the authors examine the scientific, rights-based, and economic rationale for post-pandemic investment in the health and wellbeing of women and children. Research has shown that both the parents' nutrition and a child's early life experiences/exposures play a role in establishing risks of non-communicable diseases (NCD). For example, preterm birth, or children born to a mother who is underweight, overweight or has diabetes, are at 1.5-6 times greater risk for developing NCD. Additionally, children born in areas deprived of resources have increased risk of speech and language problems as compared to children born in affluent areas. The COVID-19 pandemic has further raised the issue of inequities on many levels including gender, age, and ethnicity. For example, the effects on black and minority ethnic communities have been discussed. Widening gender-based inequities have also been identified and include the need to protect vulnerable women. Despite previous recognition of the importance of including pregnant and breastfeeding women in research, initial COVID-19 vaccine trials excluded these groups. During the lockdown, women carried a greater burden of home-schooling, childcare, breastfeeding, and parenting, which are determinants of long-term health and wellbeing. Some organizations suggest that economic progress should be measured using a sociodemographic index, which relates to healthy life expectancy, rather than GDP. The authors suggest that putting women and children first fulfills three policy prerequisites including strong scientific evidence for causal relationships between maternal/child health and population health, powerful rights-based justifications to end age and gender-based inequities and the clear importance of population health to the economy.	The authors examined the scientific, rights-based, and economic rationale for post-pandemic investment in the health and wellbeing of women and children. The authors suggest that putting women and children first fulfills three policy prerequisites including strong scientific evidence for causal relationships between maternal/child health and population health, powerful rights-based justifications to end age and gender-based inequities and the clear importance of population health to the economy.	Modi N, Hanson M. Health of women and children is central to covid-19 recovery. BMJ. 2021;373:n899. Published 2021 Apr 14. doi:10.1136/bmj.n899
COVID-19; pediatric; MIS-C; United States	14-Apr-21	<a href="#">Multiple Emergency Department Presentations of COVID-19-Related Multisystem Inflammatory Syndrome in Children [Free Access to Abstract Only]</a>	Clinical Pediatrics	Brief Report	The authors highlighted 3 pediatric COVID-19 cases with MIS-C presenting at a pediatric emergency department in the United States [dates not specified]. The patients (16-year-old male, 17-year-old female, and 15-year-old male; all African American) presented with symptoms such as persistent fever, gastrointestinal symptoms, conjunctivitis, headache, lymphadenopathy, and sore throat. 2 of the 3 patients screened negative for SARS-CoV-2 on the rapid nasopharyngeal swab RNA amplification test. Subsequently, 1 tested positive via PCR, and the other tested positive via serologic antibody testing. Echocardiogram, CXR, and EKG findings were nonspecific but concerning for myocarditis. 2 of the 3 children required hospitalization for treatment and	The authors highlighted 3 pediatric COVID-19 cases with MIS-C presenting at a pediatric emergency department in the United States. 2 of the 3 children required hospitalization for treatment and cardiorespiratory support in the pediatric ICU. The authors suggest that early identification and intervention are essential for MIS-C due to	Kim K, Suessman A. Multiple Emergency Department Presentations of COVID-19-Related Multisystem Inflammatory Syndrome in Children. Clin Pediatr (Phila). 2021;60(4-5):214-220. doi:10.1177/00099228211005289.

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					cardiorespiratory support in the pediatric ICU. The authors suggest that early identification and intervention are essential for MIS-C due to the potential for rapid deterioration.	the potential for rapid deterioration.	
COVID-19; preschool children; recurrent wheezing; Italy	14-Apr-21	<a href="#">Effects of the COVID-19 pandemic and lockdown on symptom control in preschool children with recurrent wheezing</a>	Pediatric Pulmonology	Original Research	The authors assessed the impact of the lockdown during the COVID-19 pandemic on symptom control in pre-school children with recurrent wheezing in Italy. 85 patients (mean age=4.9 years ± 1.1 years, age range=2-5.9 years; 56% male) completed the childhood Asthma Control Test (cACT) and a clinical questionnaire before lockdown (Visit 1; November 2019-February 2020), immediately after lockdown (Visit 2; March-June 2020) and later (Visit 3; July-October 2020). There were statistically significant differences between V1 and V2 for cACT (median score=23 [IQR 21-25] vs. median score=25 [IQR 24-25], respectively, p<0.0001), with higher scores indicating better asthma control. Families reported a dramatic drop in wheezing episodes (p<0.001), reductions in night-time symptoms (p<0.001), and reduction in episodes of shortness of breath (p<0.001) during the lockdown. The use of salbutamol and oral corticosteroids (OCS) dropped significantly (p<0.0001), and 79 (95%) patients needed no OCS bursts during the lockdown. Finally, patients had significantly fewer extra medical examinations, as well as fewer Emergency Room visits (p<0.0001). However, a few months after lockdown (V3), cough, night-time symptoms, and episodes of wheezing and shortness of breath all increased again compared to during lockdown (p<0.001 for all). The findings indicate that children with recurrent wheezing improved significantly during the lockdown, and further work needs to investigate the factors that may be contributing to these improvements.	The authors assessed the impact of the lockdown during the COVID-19 pandemic on symptom control in pre-school children with recurrent wheezing in Italy. The findings indicate that children with recurrent wheezing improved significantly during the lockdown, and further work needs to investigate the factors that may be contributing to these improvements.	Ullmann N, Allegorico A, Bush A, et al. Effects of the COVID-19 pandemic and lockdown on symptom control in preschool children with recurrent wheezing. <i>Pediatr Pulmonol</i> . 2021. doi:10.1002/ppul.25400.
COVID-19; pediatric; emergency department; United States	14-Apr-21	<a href="#">A Case Series of SARS-CoV-2 RT-PCR-Positive Hospitalized Infants 60 Days of Age or Younger From 2 New York City Pediatric Emergency Departments</a>	Clinical Pediatrics	Case Series	The authors described a case series of 8 hospitalized infants aged ≤60 days with SARS-CoV-2 infection at 2 community-based pediatric emergency departments in the United States between 15 March-15 April 2020. Median age was 42 days; 75% were male. All infants were healthy and born at term, except for 1 patient with premature birth, multi-cystic dysplastic kidney, and a repaired imperforate anus. All infants had a fever, except for 1 patient who was evaluated for sepsis due to lethargy and poor feeding. Other presenting symptoms were cough, congestion, lethargy, vomiting, diarrhea, or reduced oral intake. Upper respiratory symptoms were found in 62% of infants, although none had respiratory distress or required oxygen therapy during their stay. Laboratory testing was unremarkable except for lymphopenia in 25% of infants. In addition to SARS-CoV-2, 1 infant tested positive for rhinovirus/enterovirus, and another had a concurrent Escherichia coli urinary tract infection. Chest X-rays were unremarkable, except for 1 patient who had peri-bronchial thickening without focal consolidations. Patients were discharged after 48 hours of IV antibiotics and negative cultures, except for 1 patient who was	The authors described a case series of 8 hospitalized infants aged ≤60 days with SARS-CoV-2 infection at 2 community-based pediatric emergency departments in the United States between 15 March-15 April 2020. The case series highlights a mild disease course in infants with SARS-CoV-2.	Hassoun A, Dahan N, Kelly C. A Case Series of SARS-CoV-2 RT-PCR-Positive Hospitalized Infants 60 Days of Age or Younger From 2 New York City Pediatric Emergency Departments. <i>Clin Pediatr (Phila)</i> . 2021;60(4-5):247-251. doi:10.1177/00099228211006688.

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					hospitalized an additional 2 days for IV antibiotics, due to a concurrent urinary tract infection. The case series highlights a mild disease course in infants with SARS-CoV-2.		
COVID-19; maternal; neonate; birth outcomes; characteristics; United States	14-Apr-21	<a href="#">Mother-Infant Dyads with COVID-19 at an Urban, Safety-Net Hospital: Clinical Manifestations and Birth Outcomes</a>	American Journal of Perinatology	Article	This study described maternal characteristics and clinical outcomes of infants born to mothers with SARS-CoV-2 infection during pregnancy at an urban, safety-net hospital in the United States. Researchers obtained electronic chart data from 75 peripartum women with positive SARS-CoV-2 tests at any stage of gestation until 72 hours after birth, who delivered consecutively between 31 March-6 August 2020. Among the 75 women (median age=31 years, range=18-42 years), 63% were Hispanic. 13% had hypertension, 30% had pre-pregnancy obesity, and 76% had symptomatic SARS-CoV-2 infection. Regarding birth outcomes, 41% had C-section and 19% had pre-term birth. Among 75 infants, 7% had positive SARS-CoV-2 PCR tests in the first week of life, all of whom were born to Hispanic mothers with symptomatic SARS-CoV-2 infection around the time of birth. Positive SARS-CoV-2 tests in infants occurred both with complete separation from mothers and with some maternal contact. 8% of infants visited the emergency department within 30 days of discharge; 1 was admitted with a non-COVID-19 diagnosis. This study did not observe any neonatal complications attributable to COVID-19 in infants.	This study described maternal characteristics and clinical outcomes of infants born to mothers with SARS-CoV-2 infection during pregnancy or soon after delivery, at an urban, safety-net hospital in the United States. 7% of infants had positive SARS-CoV-2 PCR tests in the first week of life, all of whom were born to Hispanic mothers with symptomatic SARS-CoV-2 infection around the time of birth. Positive SARS-CoV-2 tests in infants occurred both with complete separation from mothers and with some maternal contact. This study did not observe any neonatal complications attributable to COVID-19 in infants.	Sabharwal V, Bartolome R, Hassan SA, et al. Mother-Infant Dyads with COVID-19 at an Urban, Safety-Net Hospital: Clinical Manifestations and Birth Outcomes. Am J Perinatol. 2021. doi:10.1055/s-0041-1726429.
coronavirus disease 2019 (COVID-19); follow-up; pediatric patients; severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)	14-Apr-21	<a href="#">Clinical features and follow-up of pediatric patients hospitalized for COVID-19</a>	Pediatric Pulmonology	Original Research	The authors report the clinical features and 1-month follow-up observations for pediatric patients who were hospitalized with COVID-19 at one hospital in Wuhan, China. Between 20 January and 15 March 2020, 127 patients aged 0-15 years (mean age 5.1 +/- 4.4 years, range 2 days-15 years; male n=64) were hospitalized with COVID-19; 3 had severe cases while 124 had mild or moderate cases. Among the 81 patients who had pneumonia at admission, the 35 with right lobe pneumonia had the longest hospital stay (mean 14.5 +/- 7 days), the 17 with left lobe pneumonia had the highest creatine kinase (mean 154 +/- 106 U/L) and creatine kinase myocardial band (CK-MB; mean 43 +/- 48 U/L) levels, and the 29 with bilateral pneumonia had the highest white blood cell counts (mean 8.3 +/- 4 x10 <sup>9</sup> /L). The main therapies included inhalation of aerosolized interferon-alpha (122/127) and additional antiviral drugs (28/127). All patients eventually had two 3-day interval consecutive negative RT-PCR results for SARS-CoV-2. Among the 46 patients who were followed up 1 month after discharge, 2 notable findings were right lobe pneumonia in 22% (95%CI: 11-37%) of patients and persistently elevated serum creatine kinase and CK-MB levels. The median duration of elevated CK-MB was 45 days. At follow up, the mean concentrations of serum SARS-CoV-2 IgG and IgM in 41 patients were 8.0 +/- 7.5 ng/ml and 98 +/- 40ng/ml,	The authors report the clinical features and 1-month follow-up observations for 127 pediatric patients with COVID-19 in China from January to March 2020. The involvement of different lung lobes in COVID-19 patients was associated with variations in the persistence of pneumonia and elevation of creatine kinase myocardial band (CK-MB) levels.	Tang F, Luo W, Wang X, et al. Clinical features and follow-up of pediatric patients hospitalized for COVID-19. Pediatr Pulmonol. 2021 Apr 14. doi: 10.1002/ppul.25407. PMID: 33852775.

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					respectively. At follow-up, 4 patients re-tested positive for SARS-CoV-2. Overall, the involvement of different lung lobes in COVID-19 patients was associated with variations in the persistence of pneumonia and elevation of CK-MB levels.		
vaccination; pregnancy; COVID-19; maternal health	14-Apr-21	<a href="#">Commentary: Perinatal Coronavirus Disease 2019 and Maternal Vaccination: What More Do We Need to Know?</a>	The Pediatric Infectious Disease Journal	Commentary	This commentary briefly summarizes current evidence and directions for future research regarding SARS-CoV-2 infection and vaccination against COVID-19 during pregnancy. A review by Mark et al (2021) of 196 studies reporting 1922 pregnant women with SARS-CoV-2 infection and 1361 neonates found that only 61 neonates (4%) tested positive for SARS-CoV-2. The authors assert that mother-to-infant SARS-CoV-2 transmission is rare and most instances happen postnatally. Future studies should include both symptomatic and asymptomatic pregnant women to assess differences in fetal and neonatal outcomes. Other unanswered questions include the effect of COVID-19 in early pregnancy on miscarriage, intra-uterine fetal growth restriction, congenital anomalies, long-term growth, and neurodevelopmental outcomes. Given the increased risk for premature labor, C-section, ICU admission, and mechanical ventilation in pregnant women with COVID-19, pregnant women should have the option to be vaccinated against COVID-19. The authors reference a document published by the Pregnancy Research Ethics for Vaccines, Epidemics and New Technologies Working Group in 2019 which provides ethical guidance for preparedness, research, and response for protecting pregnant women against emerging epidemic threats. This can be used in future epidemics to avoid the current situation of tentative and inconsistent recommendations for COVID-19 vaccination in pregnant women in the absence of clinical trial data.	This commentary briefly summarizes current evidence and directions for future research regarding SARS-CoV-2 infection and vaccination against COVID-19 during pregnancy. Given the increased risk for premature labor, C-section, ICU admission, and mechanical ventilation in pregnant women with COVID-19, the authors argue that pregnant women should have the option to be vaccinated against COVID-19.	Heath PT, Munoz FM. Commentary: Perinatal Coronavirus Disease 2019 and Maternal Vaccination: What More Do We Need to Know?. <i>Pediatr Infect Dis J.</i> 2021;40(5):e193. doi:10.1097/INF.0000000000003125
Infant, neonate, apnea, remdesivir, therapeutics, ICU	14-Apr-21	<a href="#">Neonates With SARS-CoV-2 Infection and Pulmonary Disease Safely Treated With Remdesivir</a>	Pediatric Infectious Disease Journal	Case Report	In this article, the authors describe 2 infants with a history of premature birth who presented with SARS-CoV-2-related pulmonary disease in the United Kingdom. Both infants presented with repeated apneic episodes and were admitted to the pediatric ICU. Both required intubation and respiratory support with mechanical ventilation, with tests returning positive for SARS-CoV-2 by PCR for both infants. The first infant (presenting at 5th week of life) received remdesivir on compassionate grounds and completed a 5-day course (2.5 mg/kg loading on day 1 followed by 1.25 mg/kg once daily on days 2–5), completed on day 11 of hospitalization. The authors observed a dramatic improvement with reduction in the ventilatory and oxygen requirements after 2 days of remdesivir treatment. By the end of day 13, the patient was successfully extubated and remained stable. For the second infant (presenting at 2nd week of life), remdesivir was started on day 4 of hospitalization with a similar dosing regimen. He was extubated on the day of remdesivir initiation, and his SARS-CoV-2 RNA PCR became negative 2 days after treatment. He was given	In this case report, the authors describe 2 infants with a history of premature birth who presented with SARS-CoV-2-related pulmonary disease in the United Kingdom. They both required ICU admission and mechanical ventilation. Both infants were treated with remdesivir with rapid improvement and stabilization. The authors conclude that these 2 high-risk neonates were successfully treated with remdesivir without observation of any side effects.	Saikia B, Tang J, Robinson S, et al. Neonates With SARS-CoV-2 Infection and Pulmonary Disease Safely Treated With Remdesivir. <i>Pediatr Infect Dis J.</i> 2021;40(5):e194-e196. doi:10.1097/INF.0000000000003081

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					remdesivir for 4 days and discharged home on day 9. The authors conclude that these 2 high-risk neonates were successfully treated with remdesivir without observation of any side effects.		
Children, mortality, epidemiology, deaths, pediatrics, national registry	14-Apr-21	<a href="#">Low COVID-19 mortality in Spanish children</a>	The Lancet Child and Adolescent Health	Correspondence	In this correspondence, the authors thank Bhopal and colleagues for amending their recent publication, which initially reported incorrect data for the number of COVID-19 deaths in children aged up to 19 years in Spain. Bhopal and colleagues now report 0.18 COVID-19 deaths per 100,000 in children aged 0–9 years (8 deaths) and 0.37 per 100,000 in children aged 10–19 years (18 deaths), up to Feb 10, 2021. In Spain, several clinical registries have been developed since the COVID-19 pandemic began, collecting data from more than 75 Spanish hospitals on the features and deaths of children with COVID-19. The authors realized that the numbers of deaths described by Bhopal and colleagues were much higher than in the registries. Pediatricians and regional and national agencies coordinated to check the information regarding deaths with SARS-CoV-2 infection in children and young people. A programming error associated with the age of deceased patients was identified and resolved. The authors conclude that preliminary or provisional surveillance data are to be used with caution, and mechanisms for rechecking abnormally high or low rates of cases or deaths can be useful for epidemiologists and for authors.	In this correspondence, the authors address the incorrect data reported in a letter by Bhopal and colleagues regarding the number of deaths due to COVID-19 for children in Spain. The error was due to a programming error in provisional surveillance data. The correct data are: 0.18 COVID-19 deaths per 100,000 in children aged 0–9 years (8 deaths) and 0.37 per 100,000 in children aged 10–19 years (18 deaths), up to Feb 10, 2021. The authors conclude that preliminary or provisional surveillance data are to be used with caution.	Tagarro A, García-Salido A, Martínez EV, Vega-Piris L, Mellado MJ. Low COVID-19 mortality in Spanish children. Lancet Child Adolesc Health. 2021; doi.org/10.1016/S2352-4642(21)00125-5
COVID-19; nasopharyngeal swab	14-Apr-21	<a href="#">Parent-Collected Nasal Swab for Severe Acute Respiratory Syndrome Coronavirus 2 Testing in Children</a>	The Pediatric Infectious Disease Journal	Original Research	The authors assessed whether parents perform similarly to health care workers (HCWs) in the administration of an unsupervised nasal swab to their children by following simple instructions and a video tutorial. The study included pediatric COVID-19 patients (range: 0-18 years; n=29; median age: 1.19 years, IQR: 0.08-10.75; 31% females) hospitalized at the Meyer Children’s University Hospital in Florence (Italy) between September 1 -November 15, 2020, who tested positive for SARS-CoV-2 on admission. 24 of 29 sample pairs (one nasopharyngeal sample from HCW, other from parent) were positive for SARS-CoV-2, with discordant results in the remainder 5 samples. Parent-collected swabs missed SARS-CoV-2 weak positivity in 3 cases, but they were able to detect weak positivity in another 2 cases that were missed by the HCW-collected swabs. All the 5 discordant pairs had a low viral load, with Ct higher than 35 (median: 36, range: 36–37). In total, 8 pairs of samples had at least 1 positive result with low viral load. Considering the remaining 21 pairs with Ct lower than 35, the positivity concordance rate was 100%. The Ct values for the parent-collected swabs (median 22.5, IQR 18–32) were equal or lower than those of the matched HCW-collected swab (median 23, IQR 17–29.5) in 50% of cases, revealing no statistically significant difference between the 2 groups (P = 0.64). Additionally, the Pearson correlation coefficient between the positive results from the parent- and HCW-collected samples was 0.9 (IQR 0.75–0.95; P	The authors assessed whether parents perform similarly to health care workers (HCWs) in the administration of an unsupervised nasal swab to their children by following simple instructions and a video tutorial. They found that 24/29 sample pairs were concordant, with the 5 discordant pairs depicting low viral loads. The authors concluded that parents perform similarly to HCWs in administering unsupervised nasal swabs for SARS-CoV-2 detection in children.	Lodi L, Rubino C, Moriondo M, et al. Parent-Collected Nasal Swab for Severe Acute Respiratory Syndrome Coronavirus 2 Testing in Children. Pediatr Infect Dis J. 2021;40(5). <a href="https://journals.lww.com/pidj/Fulltext/2021/05000/Parent_Collected_Nasal_Swab_for_Severe_Acute.30.aspx">https://journals.lww.com/pidj/Fulltext/2021/05000/Parent_Collected_Nasal_Swab_for_Severe_Acute.30.aspx</a> .

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					< 0.0001), showing a strong positive linear correlation. The authors concluded that parents perform similarly to HCWs in administering nasal swabs for SARS-CoV-2 detection in children.		
COVID-19; neonate; bacterial and fungal colonization; NICU; Italy	14-Apr-21	<a href="#">Possible Impact of Severe Acute Respiratory Coronavirus-2 Control Measures in Reducing Colonization by Gram-negative Bacteria and Candida spp. in a Neonatal Intensive Care Unit</a>	The Pediatric Infectious Disease Journal	Letter to the Editor	The authors compared the prevalence of multidrug-resistant organisms and Candida colonization in neonates admitted at a neonatal ICU (NICU) in Italy from March-August 2020, during the COVID-19 pandemic, with the same period of 2019. They found a reduction in the prevalence of Gram-negative bacteria colonization from 38% (80/211) to 20% (47/239; p<0.001), and a reduction of extended-beta-lactamase-positive bacteria colonization from 8% (17/211) to 2.5% (6/239; p<0.001), from 2019 to 2020. Furthermore, a drastic decrease in Candida spp. colonization from 8% (17/211) to 2% (5/239; p=0.001) was detected. A reduction in methicillin-resistant Staphylococcus aureus colonization was observed during the study period from 3.3% (7/211) to 0.8% (2/239), although it was not statistically significant. No decrease in colonization rates was observed in the previous 6 months (from September 2019 to February 2020) compared with the same period of the previous year (from September 2018 to February 2019) [data not shown] for any of the micro-organisms analyzed. The rate of infection during the study period decreased from 2.3% (5/211) to 1.6% (4/239) (p=0.74). These findings highlight the need for a general stringent compliance with infection control measures by healthcare workers and parents, similar to the current pandemic, in order to reduce nosocomial transmission in NICUs.	The authors compared the prevalence of multidrug-resistant organisms and Candida colonization in neonates admitted at a neonatal ICU (NICU) in Italy from March-August 2020, during the COVID-19 pandemic, with the same period of 2019. The reductions in bacterial and Candida colonizations in 2020 highlight the need for a general stringent compliance with infection control measures by healthcare workers and parents, similar to the current pandemic, in order to reduce nosocomial transmission in NICUs.	Pezzotta R, De Francesco MA, Caruso A. Possible Impact of Severe Acute Respiratory Syndrome Coronavirus-2 Control Measures in Reducing Colonization by Gram-negative Bacteria and Candida spp. in a Neonatal Intensive Care Unit. <i>Pediatr Infect Dis J.</i> 2021;40(5):e211-e213. doi:10.1097/INF.0000000000003092.
SARS-CoV-2, COVID-19, Pediatrics, Pregnancy, Neonate	14-Apr-21	<a href="#">Coronavirus Disease 2019 in Pregnancy and Outcomes Among Pregnant Women and Neonates: A Literature Review</a>	The Pediatric Infectious Disease Journal	Review Article	The authors of this literature review aimed to summarize the emerging data on outcomes among pregnant women with SARS-CoV-2 and their neonates. The authors searched Medline, Embase and Google Scholar to identify studies published from February 1 to August 15, 2020 on outcomes among pregnant women with laboratory-confirmed SARS-CoV-2 and their neonates. The authors only included peer-reviewed articles for which full text articles could be retrieved. Of the 233 studies identified, 196 were ultimately included. Cumulatively, these studies reported on 1922 women with SARS-CoV-2 infections during pregnancy and 1361 neonates with perinatal exposure. The results showed that among pregnant women with SARS-CoV-2, 181 (11%) required ICU admissions, and 123 (8%) required mechanical ventilation. There were 22 maternal deaths. Most infections occurred in the third trimester. Among women who delivered, 28% had a preterm birth, and 57% had a C-section delivery. 61 (5%) of 1222 neonates with reported testing had at least 1 positive SARS-CoV-2 test result. The most common symptom among neonates was respiratory distress (n=126; 21%). There were 14 neonatal deaths, one of which occurred in a neonate with positive test results. The authors recommended further studies of SARS-CoV-2 in pregnant women and their neonates, as well as standardizing reporting of outcomes,	The authors of this literature review aimed to summarize the emerging data on outcomes among pregnant women with SARS-CoV-2 and their neonates. The literature review included 196 studies, with a total of 1922 pregnant women with SARS-CoV-2 infections during pregnancy and 1361 neonates with perinatal exposure. Among pregnant women with SARS-CoV-2, 181 (11%) required ICU admissions and 123 (8%) required mechanical ventilation. There were 22 maternal deaths and 14 neonatal deaths total. The authors recommended further studies of SARS-CoV-2 in pregnant women and their neonates, as well as standardizing reporting of outcomes, testing and treatment protocols, to optimize maternal and neonatal care.	Mark EG, McAleese S, Golden WC, et al. Coronavirus Disease 2019 in Pregnancy and Outcomes Among Pregnant Women and Neonates: A Literature Review. <i>Pediatr Infect Dis J.</i> 2021;40(5):473-478. doi:10.1097/INF.0000000000003102

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					testing and treatment protocols, to optimize maternal and neonatal care.		
SARS-CoV-2, COVID-19, MIS-C, pediatric, inflammation, alarmin, cytotoxicity, TRBV11-2, plasmablasts	13-Apr-21	<a href="#">Immune dysregulation and autoreactivity correlate with disease severity in SARS-CoV-2-associated multisystem inflammatory syndrome in children</a>	Immunity	Original Research	The authors identified a signature in MIS-C patients correlated with disease severity by using single-cell RNA sequencing, flow cytometry, antigen receptor repertoire analysis, and unbiased serum proteomics. The study population included 23 MIS-C patients divided into severe (MIS-C-S: n=14) and moderate (MIS-C-M: n=9) groups. MIS-C patients had high ferritin, B-type natriuretic peptide (BNP), troponin, CRP, soluble CD25 (sCD25), IL-6, and IL-10. In severe MIS-C, TRBV11-2 usage increased among CD4+ and CD8+ memory T cells, and IgG plasmablasts expanded. In innate cells, reduced HLA class II, CD86 expression, and molecules involved in antigen presentation to T cells suggest a compensatory post-inflammatory feedback response or a dysregulated innate response to inflammation. Elevated alarmin genes with increased acute-phase and myeloid-derived inflammatory proteins and high endothelial E-selectin suggest inflammatory amplification and damage as important disease correlates. The authors' analysis of lymphocytes from MIS-C patients reveals: 1) Natural Killer (NK) cells and CD8+ T cells expressed elevated perforin, granzyme A, and granzyme H that are relevant for tissue damage 2) B cells had an expansion of proliferating plasmablasts, suggesting potential autoreactive expansions of antibody-secreting cells 3) Evaluation of severe MIS-C patients showed evidence of clonal expansion and somatic hypermutation within B cell populations and measurable binding of serum IgG to activated cardiac endothelial cells in culture. The plasmablasts in MIS-C were short-lived with upregulated pro-apoptotic genes, which may explain the self-resolving nature of the pathology. Thus, the data support a model in which prior SARS-CoV-2 infection causes lasting immune alterations that set the stage for the development of an acute and life-threatening post-infectious inflammatory episode in children and adolescents. These findings have the potential for application in the clinic to better diagnose and potentially predict disease severity early in the course of MIS-C.	"The authors identified a signature in MIS-C patients that correlated with disease severity by using single-cell RNA sequencing, flow cytometry, antigen receptor repertoire analysis, and unbiased serum proteomics. MIS-C patients display elevated alarmins and NK/CD8+ T cell cytotoxicity effectors, and in severe MIS-C, TRBV11-2 usage increased among CD4+ and CD8+ memory T cells, and IgG plasmablasts expanded. These findings have the potential for application in the clinic to better diagnose and potentially predict disease severity early in the course of MIS-C.	Ramaswamy A, Brodsky NN, Sumida T, et al. Immune dysregulation and autoreactivity correlate with disease severity in SARS-CoV-2-associated multisystem inflammatory syndrome in children. <i>Immunity</i> . 2021. ISSN 1074-7613, <a href="https://doi.org/10.1016/j.immuni.2021.04.003">https://doi.org/10.1016/j.immuni.2021.04.003</a> . ( <a href="https://www.sciencedirect.com/science/article/pii/S1074761321001655">https://www.sciencedirect.com/science/article/pii/S1074761321001655</a> )
COVID-19; adolescent; anger; depression; general anxiety; Qatar; coping behavior	13-Apr-21	<a href="#">Psychological and coping strategies of home isolation and social distancing parameters in children and adolescents during COVID 19 pandemic: A cross-sectional study</a>	JMIR Formative Research	Original Research	This study examined the psychological influence of home isolation, social distancing, and coping mechanisms on adolescents during the COVID-19 pandemic in Qatar. Questionnaires were administered to 6608 adolescents (7-18 years old [no mean/median given]; 50.8% male) from June 23–July 18, 2020, during a period of COVID-19-related home isolation and social distancing guidelines. 4 types of coping strategies were reportedly used by participants: spiritual/emotional, cognitive, physical, and social coping strategies. The Spence Children's Anxiety Scale screened for anxiety, the 11-item Kutcher Adolescent Depression Scale screened for depression, and the 21-item Clinical Anger Scale screened for anger. High levels of anger, depression, and general	This study examined the psychological influence of home isolation, social distancing, and coping mechanisms on adolescents during the COVID-19 pandemic in Qatar. High levels of anger, depression and general anxiety were present in 1.3%, 3.9%, and 1.6% of participants, respectively. Following COVID-19 restriction instructions	Zainel AA, Qotba H, Al-Maadeed A, et al. Psychological and Coping Strategies Related to Home Isolation and Social Distancing in Children and Adolescents During the COVID-19 Pandemic: Cross-sectional Study. <i>JMIR Formative Research</i> . 2021. <a href="http://doi.org/10.2196/24760">http://doi.org/10.2196/24760</a> . PMID: 33851577

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					anxiety were prevalent among 1.3%, 3.9% and 1.6% of participants, respectively. Levels of anger were lower in those following the official instructions during home isolation and social distancing (p=0.04). Although depression decreased with following COVID-19 restrictions, the difference was not statistically significant (p=0.11). Similarly, anxiety decreased with following COVID-19 restrictions, but not significantly (p=0.15). This study found high levels of anger, depression, and general anxiety in adolescents, and following COVID-19 restrictions helped reduce levels of anger.	helped significantly reduce levels of anger.	
COVID-19; child nutrition; intervention; nutrition education; undernutrition	13-Apr-21	<a href="#">The risk to child nutrition during and after COVID-19 pandemic: what to expect and how to respond</a>	Public Health Nutrition	Review	This review summarizes areas of concern for child nutrition during and after the COVID-19 pandemic and proposes strategic responses to reduce child undernutrition. A recent study projected an increased prevalence of wasting in children <5 years by 10-50% and an additional 40,000-2,000,000 child deaths due to the indirect effects of COVID-19. The COVID-19 pandemic has particularly affected regions of South Asia and sub-Saharan Africa with an ongoing burden of child undernutrition. Contributing factors include economic downturn, food insecurity, and disruption to community-based detection and management of malnutrition. The authors propose 5 strategic responses to reduce child undernutrition during and after the COVID-19 pandemic. These responses include 1) strengthening access to community-based nutrition services that support the early detection and treatment of undernourished children and emergency food distribution; 2) supporting community nutrition education, counseling, and promotion focused on pregnancy, exclusive breastfeeding, complementary feeding, and hygienic practices; 3) investing in food systems and agriculture partners to increase access to healthy and diverse diets; 4) reactivating early detection and treatment of child malnutrition; and 5) engaging with caregivers and lactating mothers to promote hygiene practices, mask-wearing, and physical distancing to prevent SARS-CoV-2 infection in malnourished children <5 years old.	This review summarizes areas of concern for child nutrition during and after the COVID-19 pandemic, with a focus on children <5 years old, and proposes strategic responses to reduce child undernutrition. These responses include strengthening community-based nutrition services, supporting nutrition education for pregnant and lactating mothers, investing in food systems, strengthening early detection programs, and promoting IPC measures to prevent SARS-CoV-2 infection in malnourished children.	Ntambara J, Chu M. The risk to child nutrition during and after COVID-19 pandemic: what to expect and how to respond [published online, 2021 Apr 13]. Public Health Nutr. 2021;1-18. doi:10.1017/S1368980021001610
COVID-19; pediatric; asthma; United States	13-Apr-21	<a href="#">Unexpected decline in pediatric asthma morbidity during the coronavirus pandemic</a>	Pediatric Pulmonology	Original Research	This study evaluated asthma-related emergency department (ED) and inpatient health care utilization by a county-specific Medicaid population aged 2-18 years in Franklin County, Ohio, USA from January-June 2020 during the COVID-19 pandemic and compared it to utilization from a 3-year average including 2017-2019 [mean age not specified]. Relative to the 2017-2019 3-year average, cumulative asthma-related ED visits in 2020 decreased by 45.8% (p=0.03) and inpatient admission rates decreased by 50.5% (p=0.03). The decline in asthma-related ED utilization was greater than the reduction of overall ED use during the same period, suggesting that the decline involved factors specific to asthma and was not due solely to avoidance of health care facilities. Prescription fill rates for asthma controller medications decreased	The authors evaluated asthma-related emergency department (ED) and inpatient health care utilization by a county-specific Medicaid population, ages 2–18 years, during the COVID-19 pandemic and compared it to utilization from a 3-year average including 2017–2019. Relative to the 2017-2019 3-year average, cumulative asthma-related ED visits in 2020	Ulrich L, Macias C, George A, et al. Unexpected decline in pediatric asthma morbidity during the coronavirus pandemic. <i>Pediatr Pulmonol</i> . 2021. doi:10.1002/ppul.25406.

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					during this time (p=0.03), and quick-relief medication fill rates had no significant change. Therefore, multiple factors may have contributed to the decrease in acute asthma health care visits. Locally, decreased air pollution and viral exposures coincided with the "stay-at-home" order in the community, and increased utilization of telehealth for assessment during exacerbations may have impacted outcomes. The authors suggest that identifying the cause of the decline in visit rates could spur new interventions to limit the need for ED and inpatient visits for asthma patients, leading to both economic and health-associated benefits.	decreased by 45.8%, and inpatient admission rates decreased by 50.5%. The authors suggest that identifying the cause of the decline in visit rates could spur new interventions to limit the need for ED and inpatient visits for asthma patients, leading to both economic and health-associated benefits.	
Tenofovir, pregnancy, safety, congenital malformations, therapeutics, treatment, teratogenicity	13-Apr-21	<a href="#">Safety of Tenofovir Disoproxil Fumarate (TDF) for Pregnant Women facing the COVID-19 Pandemic</a>	American Journal of Epidemiology	Original Research	In this cohort study, the authors evaluated the risk for major congenital malformations associated with early pregnancy exposure to tenofovir, a human immunodeficiency virus (HIV) drug currently being evaluated for the treatment of COVID-19. Using US Medicaid Analytic Extract (MAX) claims data (2000-2014), they identified a cohort of pregnant women with HIV who filled $\geq 1$ prescription for antiretroviral therapies (ART) during the first trimester. Women on tenofovir disoproxil fumarate (TDF, n=872) were compared with women receiving ART without TDF (n=1020). Major malformations were identified by ICD-9 codes and relative risks (RR) were estimated using propensity score stratification. Major congenital malformations were diagnosed in 37/866 (4.27%) infants exposed to TDF and 38/1,020 (3.73%) infants exposed to ART other than TDF; the adjusted RR was 1.21 (95% CI 0.77-1.90). Estimates for specific malformations were imprecise. The authors also conducted a systematic literature review and a meta-analysis (6 studies). The pooled RR of congenital malformations was 0.88 (95% CI 0.75-1.03). The authors conclude that based on this evidence in patients with HIV, first trimester TDF use does not increase the risk of major congenital malformations overall in the newborn compared to other ART, which is reassuring for pregnant women eligible for TDF treatment during the COVID-19 pandemic.	In this study, the authors assessed the risk of major congenital malformations from tenofovir use in early pregnancy, a potential treatment for COVID-19. Compared to pregnant women with HIV in the USA who used a different antiretroviral therapy, those who used tenofovir disoproxil fumarate (TDF) in the first trimester did not experience increased risk of congenital malformations. This is reassuring for pregnant women eligible for treatment with TDF during the COVID-19 pandemic.	Hernandez-Diaz S, Bateman BT, Straub L, et al. Safety of Tenofovir Disoproxil Fumarate (TDF) for Pregnant Women facing the COVID-19 Pandemic. Am J Epidemiol. 2021;kwab109. doi:10.1093/aje/kwab109
COVID-19; pediatric; cystic fibrosis; bacterial culture; microbiology; telemedicine; home collection, oropharyngeal swab	13-Apr-21	<a href="#">Detection of Bacterial Pathogens Using Home Oropharyngeal Swab Collection in Children with Cystic Fibrosis</a>	Pediatric Pulmonology	Original Research	The authors described a protocol for at-home collection of oropharyngeal (OP) swabs from children with cystic fibrosis (CF) in the United States. Home respiratory specimen collection was offered during telehealth encounters beginning April 2020. Home OP swab kits were sent to 33 participating families (age range for children with CF=1.5-19 yrs, mean age=8.3 yrs) via mail with instructions for collection and return. Specimens were returned by overnight shipping or dropped off at a hospital lab for processing and culture. Culture results from the home-collected specimen were compared to the most recent specimen collected in the clinic. OP swab kits were successfully returned from 19 children (age range=1.5-19 yrs, mean age=7.9 yrs; 58% female), and $\geq 1$ CF pathogens grew from 79% of the specimens. The time between the home-collected OP swab and the most recent clinic collected swab	The authors described a protocol for at-home collection of oropharyngeal (OP) swabs from children with cystic fibrosis (CF) in the United States and compared culture results from the home-collected specimens to the most recent specimens collected in the clinic. The results were similar to recent in-clinic specimens, and 32% of the home-collected OP swabs grew the same CF pathogens	Lenhart-Pendergrass PM, Anthony M, Sariyska S, Andrews A, et al. Detection of Bacterial Pathogens Using Home Oropharyngeal Swab Collection in Children with Cystic Fibrosis. Pediatr Pulmonol. 2021. doi:10.1002/ppul.25421.

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					averaged 4.8 months (range 2.9-8.6 months). The results were similar to recent in-clinic specimens, suggesting acceptable sample collection techniques. 32% of the home-collected OP swabs grew the same CF pathogens as the in-clinic samples. 21% of samples had no growth of CF pathogens in either the home-collected or in-clinic samples, and 47% identified new CF pathogens. For 4 individuals, the home collected specimen demonstrated new growth of <i>Pseudomonas aeruginosa</i> , and anti-pseudomonal therapy was initiated. The findings suggest that home collection of OP swabs for bacterial culture is feasible in children with CF across a range of ages and can be a useful tool during the COVID-19 pandemic.	as the in-clinic samples. The findings suggest that home collection of OP swabs for bacterial culture is feasible in children with CF across a range of ages and can be a useful tool during the COVID-19 pandemic.	
HIV; Hypertension; MicroRNA; Preeclampsia; Pregnancy; SARS-CoV-2	13-Apr-21	<a href="#">The Involvement of MicroRNAs in SARS-CoV-2 Infection Comorbid with HIV-Associated Preeclampsia</a>	Current Hypertension Reports	Review	This review investigated the potential role of microRNAs (miRNAs) in the synergy of SARS-CoV-2 infection, preeclampsia (PE), and HIV infection, with a focus on the South African context. Maternal health is a great concern when treating pregnant women fighting this triad of diseases, which are highly prevalent in South Africa. MiRNAs are involved in fine-tuning of physiological processes. Disruptions to the balance of this protein can lead to various physiological changes that are sometimes pathological. MiRNAs have recently been implicated in PE and have been linked to the anti-angiogenic imbalance evident in PE. Recent in silico studies have identified potential host miRNAs with anti-viral properties against SARS-CoV-2 infection. Studies have demonstrated dysregulated expression of several miRNAs in HIV-1 infection along with the ability of HIV-1 to downregulate anti-viral host miRNAs. This review has highlighted the significant gap in literature on the potential of miRNAs in women with HIV-associated PE in synergy with the novel SARS-CoV-2 infection. In addition, this review has provided evidence of the critical role that the epigenetic regulatory mechanism of miRNA plays in viral infections and PE, thereby providing a foundation for further research investigating the potential of therapeutic miRNA development with fewer side-effects for pregnant women.	This review investigated the potential role of microRNAs (miRNAs) in the synergy of SARS-CoV-2 infection, preeclampsia (PE), and HIV infection. The authors provide evidence of the critical role that the epigenetic regulatory mechanism of miRNA plays in viral infections and PE, thereby providing a foundation for further research investigating the potential of therapeutic miRNA development with fewer side-effects for pregnant women.	Abel T, Moodley J, Naicker T. The Involvement of MicroRNAs in SARS-CoV-2 Infection Comorbid with HIV-Associated Preeclampsia. <i>Curr Hypertens Rep.</i> 2021;23(4):20. Published 2021 Apr 13. doi:10.1007/s11906-021-01138-5
breastfeeding; SARS-CoV-2; vaccination; antibodies; neonatal immunity	13-Apr-21	<a href="#">Safety of Breastfeeding by Mothers With COVID-19: New Evidence From Israel</a>  <a href="#">[Free Access to Abstract Only]</a>	Pediatrics	Commentary	The WHO recommends skin-to-skin contact with breastfeeding within 1 hour of birth, exclusive breastfeeding for 6 months, and continued breastfeeding with appropriate complementary foods for up to 2 years and beyond. However, there have been questions regarding SARS-CoV-2 transmission from mother to infant through breastmilk. Based on available evidence, the WHO recommends that mothers with suspected or confirmed COVID-19 be encouraged to initiate or continue breastfeeding their infants. The authors cite evidence supporting these recommendations. A case series of 53 women with SARS-CoV-2 infection and their 55 infants in Israel [most were breastfed; proportion not reported] found no evidence of neonatal SARS-CoV-2 infection at delivery or 2 and 3 weeks post-delivery. A meta-analysis reported a 9% incidence of	The authors cite evidence supporting WHO recommendations that mothers with suspected or confirmed COVID-19 be encouraged to initiate or continue breastfeeding. While the incidence of vertical transmission of SARS-CoV-2 has been estimated at 9%, there remains no evidence that transmission occurs via breastmilk. Furthermore,	Fouda GGA, Kwiek JJ, Yotebieng M. Safety of Breastfeeding by Mothers With COVID-19: New Evidence From Israel [published online, 2021 Apr 13]. <i>Pediatrics.</i> 2021;e2020049772. doi:10.1542/peds.2020-049772

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					vertical transmission among 200 infants. However, the authors also cite evidence of transplacental transfer of SARS-CoV-2-specific antibodies, particularly in cases of maternal infection before the 3rd trimester. SARS-CoV-2-specific antibodies have also been detected in the breast milk of infected lactating women, lending additional support for continued breastfeeding. However, given evidence that maternal antibodies may interfere with rotavirus and pertussis vaccine efficacy in infants, the authors call for more research to better understand the dynamics of SARS-CoV-2 immune responses in maternal-infant dyads.	SARS-CoV-2 specific antibodies have been detected in the breast milk of infected women, lending additional support for continued breastfeeding.	
SARS-CoV-2, pregnancy, placenta, ACE2, preeclampsia, decidua	13-Apr-21	<a href="#">SARS-CoV-2 colonization of maternal and fetal cells of the human placenta promotes alteration of local renin-angiotensin system</a>	Med	Clinical Article	This study explores the association of SARS-CoV-2 infection with increased risk of adverse pregnancy outcomes such as preeclampsia in pregnant women. The authors studied 5 placentas each from SARS-CoV-2 uninfected (mean age 27.8 years, range 19-33 years) and RT-PCR confirmed SARS-CoV-2 infected (mean age 26.4 years, range 17-32 years) pregnant women in St. Louis, Missouri, USA [dates unknown]. 1 woman in both groups delivered pre-term; 3 women in each group delivered vaginally. The authors investigated the pathophysiology of SARS-CoV-2 at maternal-fetal interface in women virus using RNA in situ hybridization (viral RNA), immunohistochemistry, and hematoxylin and eosin staining. To investigate whether viral infection alters the renin angiotensin system (RAS) in placenta which controls blood pressure, the authors treated human trophoblasts with recombinant Spike protein or a live modified virus with a vesicular stomatitis viral backbone expressing Spike protein (VSV-S). The authors localized SARS-CoV-2 to cells expressing ACE2 and demonstrate that infected placentas had significantly reduced ACE2 via Western blotting quantification. SARS-CoV-2 colonizes ACE2-expressing maternal and fetal cells in the placenta. Infection in pregnant women correlates with alteration of placental RAS. The authors conclude that as RAS regulates blood pressure, SARS-CoV-2 infection may thus increase adverse hemodynamic outcomes such as preeclampsia in pregnant women.	This study explores the association of SARS-CoV-2 infection with increased risk of adverse pregnancy outcomes such as preeclampsia in pregnant women. The authors conclude that infection in pregnant women correlates with alteration of placental RAS and as RAS regulates blood pressure, SARS-CoV-2 infection may thus increase adverse hemodynamic outcomes such as preeclampsia in pregnant women.	Verma, S., Joshi, C.S., Silverstein, R.B., He, M., Carter, E.B., Mysorekar, I.U., SARS-CoV-2 colonization of maternal and fetal cells of the human placenta promotes alteration of local renin-angiotensin system, Med (2021), doi: <a href="https://doi.org/10.1016/j.medj.2021.04.009">https://doi.org/10.1016/j.medj.2021.04.009</a>
COVID-19; breast-feeding; neonate; maternal; Israel	13-Apr-21	<a href="#">Neonatal SARS-CoV-2 Infections in Breastfeeding Mothers</a>	Pediatrics	Article	The authors assessed infection rates pre-discharge and post-discharge in breast milk-fed neonates with SARS-CoV-2-positive mothers in Israel, who were separated post-delivery from their mothers and discharged from the hospital. The study period was 5 March-30 May 2020. Nasopharyngeal swabs for SARS-CoV-2 were obtained from symptomatic and high-risk women in the delivery room. Mothers with positive SARS-CoV-2 test results were separated from the neonates. Neonates were screened within 48 hours of delivery, and anti-infectious guidelines were imparted to the mothers before discharge. Re-screening took place $\geq 14$ days post-discharge. Of the 53 mothers (mean age=29.7 $\pm$ 7.3 years, range=20-44 years) included in the study, 74.5% expressed breast milk during the initial mother-infant separation period, which in	The authors assessed infection rates pre-discharge and post-discharge in breast milk-fed neonates with SARS-CoV-2-positive mothers in Israel, who were separated post-delivery from their mothers and discharged from the hospital. No infections were identified in neonates pre-discharge or post-discharge. These findings support the safety of breast milk, with appropriate	Shlomain NO, Kasirer Y, Strauss T, et al. Neonatal SARS-CoV-2 Infections in Breastfeeding Mothers. Pediatrics. 2021:e2020010918. doi:10.1542/peds.2020-010918.

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					most cases lasted 2-3 days; this breast milk was fed unpasteurized to the associated neonates during separation until discharge. All 55 neonates (mean gestational age =39 ± 1 weeks, range 31 1/7 – 41 1/7 weeks; 54.5% male) tested negative for SARS-CoV-2 post-delivery. 89% of the neonates were discharged from the hospital with their mothers. In 40% of the households, there were additional SARS-CoV-2-positive residents. A total of 85% of the newborns were breast-fed post-discharge. Results for all 60% of the neonates re-tested for SARS-CoV-2 post-discharge were negative. These findings support the safety of breast milk, with appropriate precautions, during the COVID-19 pandemic.	precautions, during the COVID-19 pandemic.	
Pregnancy, stress, postpartum, maternal health, hardship	13-Apr-21	<a href="#">Protocol for The Pregnancy During the COVID-19 Pandemic (PdP) study: A longitudinal cohort study of mental health among pregnant Canadians during the COVID-19 pandemic and developmental outcomes in their children</a>	JMIR Research Protocols	Protocol	In this article, the authors describe the protocol for the Pregnancy During the COVID-19 Pandemic (PdP) study, which is designed to investigate the associations between exposure to objective hardship caused by the pandemic, perceived stress and psychological distress in pregnant individuals, and developmental outcomes in their offspring in Canada. The PdP study comprises a prospective longitudinal cohort of pregnant individuals at least 17 years of age and ≤35 weeks gestation. At enrollment, participants complete an initial survey that assesses demographic and socio-economic characteristics, previous pregnancies and births, pre-pregnancy health, health conditions during pregnancy, medications, psychological distress, social support, and hardships experienced because of COVID-19 (e.g., lost employment, loved one dying) using multiple validated questionnaires (such as the Edinburgh Postpartum Depression Scale). For 3 months, participants receive a monthly email to a follow-up survey. After 3 months, follow-up surveys are sent every other month. Once postpartum, surveys are sent at 3-, 6-, and 12-months of infant age to assess maternal stress, psychological distress and infant development. Participant recruitment via social media (Facebook, Instagram) began on April 5, 2020 and is ongoing. Findings of the study are intended to generate knowledge about the psychological consequences of pandemics on pregnant individuals and point toward prevention and intervention targets.	In this article, the authors describe the protocol for the Pregnancy During the COVID-19 Pandemic (PdP) study, which is designed to investigate the associations between exposure to objective hardship caused by the pandemic, perceived stress and psychological distress in pregnant individuals, and developmental outcomes in their offspring in Canada. Pregnant individuals will complete multiple longitudinal surveys using validated questionnaires throughout their pregnancy and the postpartum period. Participant recruitment via social media began on April 5, 2020 and is ongoing.	Giesbrecht GF, Bagshawe M, van Sloten M, et al. Protocol for The Pregnancy During the COVID-19 Pandemic (PdP) study: A longitudinal cohort study of mental health among pregnant Canadians during the COVID-19 pandemic and developmental outcomes in their children. JMIR Res Protoc. 2021;10.2196/25407. doi:10.2196/25407
COVID-19; pediatric; MIS-C; neurologic features;	13-Apr-21	<a href="#">Systemic Inflammation Is Associated With Neurologic Involvement in Pediatric Inflammatory Multisystem Syndrome Associated With SARS-CoV-2</a>	Neurology Neuroimmunology & Neuroinflammation	Original Research	The authors examined the neurologic features of children with pediatric inflammatory multisystem syndrome temporally associated with SARS-CoV-2 (PIMS-TS) at a large children's hospital in the United Kingdom from March-June 2020. A retrospective medical note review was conducted for 75 patients with PIMS-TS (median age=10 yrs, IQR 7.9 yrs). 12% had neurologic involvement including altered consciousness (n=3), behavioral changes (n=3), focal neurology deficits (n=2), persistent headaches (n=2), hallucinations (n=2), excessive sleepiness (n=1), and new-onset focal seizures (n=1). 4 patients had cranial images abnormalities. At a 3-month follow-up, 1 child had died, 1 had hemiparesis, 3 had behavioral changes, and 4 had completely recovered. Systemic	The authors examined the neurologic features of children with PIMS-TS at a large children's hospital in the United Kingdom from March-June 2020. The findings suggest that children with neurologic symptoms as part of their PIMS-TS presentation have significantly higher systemic inflammatory markers than children without	Sa M, Mirza L, Carter M, et al. Systemic Inflammation Is Associated With Neurologic Involvement in Pediatric Inflammatory Multisystem Syndrome Associated With SARS-CoV-2. Neurol Neuroimmunol Neuroinflamm. 2021;8(4):e999. doi:10.1212/NXI.000000000000999.

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					inflammatory and prothrombotic markers were higher in patients with neurologic involvement (mean CRP=267 vs. 202 mg/L, p=0.05; procalcitonin=30.65 vs. 13.11 µg/L, p=0.04; fibrinogen=7.04 vs. 6.17 g/L, p=0.07; d-dimers 19.68 vs. 7.35 mg/L, p=0.005). Among patients with neurologic involvement, these markers were higher in those without full recovery at 3 months (ferritin 2284 vs. 283 µg/L, p=0.05; d-dimers 30.34 vs. 6.37 mg/L, p=0.04). Patients with and without neurologic involvement shared similar risk factors for PIMS-TS (Black, Asian, and Minority Ethnic ethnicity 78% vs. 70%, obese/overweight 56% vs. 42%). These findings suggest that children with neurologic symptoms as part of their PIMS-TS presentation have significantly higher systemic inflammatory markers than children without neurologic features. Further larger-scale multicenter collaborative studies are already being initiated to map the fuller spectrum of acute and long-term neurologic features of PIMS-TS and evaluate the treatment effects of attenuating inflammation on neurologic outcome.	neurologic features. Further larger-scale multicenter collaborative studies are already being initiated to map the fuller spectrum of acute and long-term neurologic features of PIMS-TS and evaluate the treatment effects of attenuating inflammation on neurologic outcome.	
COVID-19; perinatal infection; IgG, IgM; seroconversion;	13-Apr-21	<a href="#">Dynamic changes of acquired maternal SARS-CoV-2 IgG in infants</a>	Scientific Reports	Research	In this study, the authors aim to describe the serodynamic results of pregnant women with SARS-CoV-2 infection and their infants delivered in a hospital in Wuhan, China. Between January 27 and May 10, 2020, 26 pregnant women with RT-PCR confirmed SARS-CoV-2 infection and their 27 infants were tested for IgM and IgG antibodies against SARS-CoV-2. All infants were negative for SARS-CoV-2 infection at birth. The age range of mothers was 22–41 years, and the range of gestational age at admission was 316+ to 411+ weeks. All infants were separated from their mothers immediately and were not breastfed before SARS-CoV-2 antibodies testing. 11 of the pregnant women underwent serology testing 1-8 days prior to delivery (at a median time of 64.5 days (36–81 days) from infection to antibody detection); all were IgG positive (11/11, 100%) and 63.6% (7/11) cases were IgM positive. The 11 infants of these mothers were tested for antibodies 1–2 days after birth; the IgG was positive in 9 (9/11, 81.8%) of these infants. The remaining 15 mothers were tested for SARS-CoV-2 antibodies after delivery and among them, 40% (6/15) were IgM positive, and 66.7% (10/15) were IgG positive; the median time from infection to antibody testing was 64.5 days (36–81 days). Of their 16 infants, only 2 cases (12.5%, 2/16) were IgG positive. The authors suggest that the infection time and antibody titers of mothers before delivery may affect the acquisition of maternal IgG in their infants and further, that the duration of passive immunity may be short-lived.	The authors described the serodynamic results of pregnant women with SARS-CoV-2 infection and their infants delivered in a hospital in Wuhan, China. The authors suggest that the infection time and antibody titers of mothers before delivery may affect the acquisition of maternal IgG in their infants and further, that the duration of passive immunity may be short-lived.	Wang X, Yang P, Zheng J, et al. Dynamic changes of acquired maternal SARS-CoV-2 IgG in infants. Sci Rep. 2021;11(1):8021. Published 2021 Apr 13. doi:10.1038/s41598-021-87535-x

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socioeconomic status; medicaid; disparities; race; ethnicity; insurance; lockdowns	13-Apr-21	<a href="#">Differences in Declines in Pediatric ED Utilization During the Covid19 Pandemic by Socioeconomic Disadvantage</a>	medRxiv	Preprint (not peer-reviewed)	This study examined how changes in pediatric emergency department (ED) visits during the COVID-19 pandemic differed by socio-economic disadvantage. Electronic medical records were reviewed from a large pediatric ED in Alabama (USA) for January-June 2020. 3 time-periods in 2020 - pre-COVID-19 (TP0), COVID-19 with restrictions like stay-at-home (TP1), and COVID-19 with restrictions relaxed (TP2) - were compared with the corresponding time-periods in 2019. Changes in overall visits, visits for minoritized race (MR) versus non-Hispanic white (NHW) children, and Medicaid-enrolled versus privately-insured children were considered, along with changes in acuity-mix of ED visits and share of visits resulting in inpatient admission. Compared to 2019, total ED visits declined in TP1 (54.3%) and TP2 (48.9%) of 2020. Declines were larger for MR children (TP1 57.3%; TP2 57.8%) compared to NHW children (50.5%, 39.3%), and Medicaid enrollees (56.5%, 52.0%) compared to the privately insured (48.3%, 39.0%); (p<0.001 for all). Particularly, MR children saw steeper percentage declines in high-acuity visits (p<0.001) and visits resulting in inpatient admissions (p<0.001) compared to NHW children. The mix of pediatric patients by race and insurance-status, as well as the share of high-acuity visits and visits with inpatient admissions differed between TP1 and TP2 of 2019 and 2020 (p<0.05 for all cases). In contrast, there was little evidence of difference between TP0 of 2019 and 2020. Since disadvantaged children often lack access to a usual source of care, this raises concerns about unmet health needs and worsening health disparities during the COVID-19 pandemic in a region that already has poor health indicators.	This study examined how changes in pediatric emergency department (ED) visits during the COVID-19 pandemic differed by socio-economic disadvantage, based on electronic medical records from a large pediatric ED in Alabama (USA). Results show declines in pediatric ED visits during lockdown and after relaxed restrictions in 2020 compared corresponding periods in 2019, with larger declines observed for racial minorities and Medicaid enrollees. The authors suggest these results point to unmet health needs and worsening health disparities among children in the southern US.	Sen B, Brisendine A, Ghosh P. Differences in declines in pediatric ED utilization during the Covid19 pandemic by socioeconomic disadvantage. medRxiv. 2021:2021.04.09.21255225. doi: 10.1101/2021.04.09.21255225 .
COVID-19, SARS-CoV-2, Pandemic, Pediatrics, Epidemiology, Diagnosis, Screening	13-Apr-21	<a href="#">COVID-19 in Children at Strasbourg University Hospital: A Retrospective Study of the First 2 Months of the Epidemic</a>	Archives de Pédiatrie	Original Research	This study was a descriptive, retrospective, single-center and non-interventional epidemiological study that aimed to describe the epidemiology and the clinical features of SARS-CoV-2 pediatric infections in Strasbourg University Hospital, which was the first hospital affected by the COVID-19 pandemic in France. The study was based on medical records covering the time period of February 25-April 30, 2020. All patients <18 years old who tested positive for SARS-CoV-2 by PCR assays between these dates were considered (n=46). In this cohort, only 33 patients had usable data and were included in the study (median age 1 year 9 months, mean 5 years 5 months, range 9 days-17 years 8 months; 60% male). The results showed that the presence of fever and respiratory symptoms were frequent (45.4% of cases), as was the presence of general or digestive symptoms (18.2% of cases), but patients were also frequently asymptomatic (21.2% of cases). No deaths were noted in this cohort of patients. In conclusion, no patient with a serious form of SARS-CoV-2 infection was treated in the pediatric department at Strasbourg University Hospital during the first 2 months of the pandemic.	This study was a descriptive, retrospective, single-center and non-interventional epidemiological study that aimed to describe the epidemiology and the clinical features of SARS-CoV-2 pediatric infections in Strasbourg University Hospital, in France. The results showed that the presence of fever and respiratory signs were frequent (45.4% of cases), as was the presence of general or digestive signs (18.2% of cases), but patients were also frequently asymptomatic (21.2% of cases). No deaths were noted in this cohort of patients.	Lavaine O, Spizzo J, Arbitre C, et al. COVID-19 in children at strasbourg university hospital: A retrospective study of the first 2 months of the epidemic. Archives de Pédiatrie. 2021. <a href="https://www.sciencedirect.com/science/article/pii/S0929693X21000634">https://www.sciencedirect.com/science/article/pii/S0929693X21000634</a> . doi: <a href="https://doi.org/10.1016/j.arcped.2021.03.013">https://doi.org/10.1016/j.arcped.2021.03.013</a> .

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
COVID-19, SARS-CoV-2, Vaccines, Vaccinations, Milk, Human Milk, Mothers, Infants, Healthcare workers	13-Apr-21	<a href="#">Detection of SARS-CoV-2 Specific IgA in the Human Milk of COVID-19 Vaccinated, Lactating Health Care Workers</a>	medRxiv	Preprint (Not Peer-Reviewed)	The aim of this prospective observational study was to determine whether SARS-CoV-2-specific immunoglobulins are found in human milk after COVID-19 vaccination, and to characterize the types of immunoglobulins that are present. The study was conducted at Shands Hospital, University of Florida from December 2020 to March 2021. 22 lactating healthcare workers who received the SARS-CoV-2 mRNA vaccine (either Pfizer/BioNtech or Moderna) made up the sample group. Plasma and human milk were collected at 3 different times (pre-vaccination, post-first vaccine dose, and post-second vaccine dose). SARS-CoV-2-specific IgA and IgG in human milk and in plasma were measured by ELISA. The results showed that SARS-CoV-2 IgA and IgG significantly increased in human milk (p<0.0001 for IgA and p=0.0002 for IgG) from time period 1 (pre-vaccination) to time period 3 (7-10 days after second vaccination dose). In conclusion, the results show that the mRNA-based COVID-19 vaccines induce SARS-CoV-2 specific IgA and IgG secretion in human milk.	The aim of this prospective observational study was to determine whether SARS-CoV-2-specific immunoglobulins are found in human milk after COVID-19 vaccination, and to characterize the types of immunoglobulins that are present. The results showed that SARS-CoV-2 IgA and IgG significantly increased in human milk (p<0.0001 for IgA and p=0.0002 for IgG) from time period 1 (pre-vaccination) to time period 3 (7-10 days after second vaccination dose). The study concluded that the mRNA-based COVID-19 vaccines induce SARS-CoV-2 specific IgA and IgG secretion in human milk.	Valcarce V, Stafford LS, Neu J, et al. Detection of SARS-CoV-2 specific IgA in the human milk of COVID-19 vaccinated, lactating health care workers. 2021. doi: 10.1101/2021.04.02.21254642
SARS-CoV-2, COVID-19, children, ECMO, extracorporeal membrane oxygenation, TPE, therapeutic plasma exchange	12-Apr-21	<a href="#">Commentary: Therapeutic Plasma Exchange in COVID-19 pediatric patients: Is there a role?</a>	JTCVS Techniques	Commentary	This commentary evaluates a separate case report, which demonstrated a multimodal approach of veno-veno (V-V) extracorporeal membrane oxygenation (ECMO) and therapeutic plasma exchange (TPE) in a pediatric COVID-19 patient. Kakuturu, et al. described a 15-year-old COVID-19 patient with multiple comorbidities (obesity, pre-diabetes, hypertension), who was successfully managed with V-V ECMO and TPE. TPE has shown some benefit for adult patients with severe sepsis and multi-system organ failure, and has been applied to adult patients with fulminant COVID-19. TPE is hypothesized to break the cycle of coagulopathy, endothelial dysfunction, and cytokine storm. Recently published studies show reductions in C-Reactive Protein, Interleukin-6 (IL-6), lactate dehydrogenase, and D-Dimer, in addition to oxygenation improvement, following TPE in critically ill adult COVID-19 patients. There is little literature on TPE in pediatric COVID-19 patients. TPE has been described as rescue therapy in pediatric patients during the H1N1 pandemic. Kakuturu's report highlights the adjunct use of TPE and concomitant reduction in inflammatory markers, suggesting a temporal improvement related to TPE use.	This commentary evaluates a separate case report, which demonstrated a multimodal approach of veno-veno extracorporeal membrane oxygenation (ECMO) and therapeutic plasma exchange (TPE) in a pediatric COVID-19 patient. The case report supports recently published studies on the benefits of TPE for critically ill COVID-19 patients.	Vanderlaan R. Commentary: Therapeutic Plasma Exchange in COVID-19 pediatric patients: Is there a role? JTCVS Tech. 2021 Apr 16. doi: 10.1016/j.jxtc.2021.04.012. PMID: 33880453; PMCID: PMC8050404.
COVID-19; anxiety; depression; experience; pandemic; postpartum; pregnancy	12-Apr-21	<a href="#">Depression, Anxiety, Resilience, and Coping: The Experience of Pregnant and New Mothers During the First Few Months of the</a>	Journal of Women's Health	Original Research	This study assessed the experiences of pregnant and postpartum women during the early phases of the COVID-19 pandemic in United States. Cross-sectional observational studies were conducted with using adult pregnant and postpartum (up to 6 months postpartum; mean age=33 years; n=524) from April – June 2020. An 18-item Brief Symptom Inventory-18 measured depression and anxiety on a 5-point Likert scale, where higher overall scores represent more severe anxiety or depression. A 10-item subset of questions from the DSM-5 PTSD checklist assessed PTSD using a 5-point Likert scale with higher scores indicate more	This study assessed the experiences of pregnant and postpartum women during the early phases of the COVID-19 pandemic in United States. This study found that significant correlations between anxiety, depression, and PTSD for pregnant and postpartum women, which	Kinser PA, Jallo N, Amstadter AB, et al. Depression, Anxiety, Resilience, and Coping: The Experience of Pregnant and New Mothers During the First Few Months of the COVID-19 Pandemic [published online ahead of print, 2021 Apr 12]. J Womens Health (Larchmt).

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		<a href="#">COVID-19 Pandemic</a>			severe PTSD. An abbreviated Connor-Davidson Resilience Scale (CD-RISC 2) was used to indicate resilience and adaptability using a 5-point Likert scale, where higher scores indicate more resilience and adaptability. A Coronavirus Perinatal Experiences Impact Survey assessed the experiences of new or pregnant mothers on a 4-point Likert scale, where higher scores indicate higher levels of concern. Depression, anxiety, and PTSD are positively correlated to each other ( $p < 0.0001$ ), with a notable correlation between anxiety and PTSD ( $r = 0.827$ , $p < 0.0001$ ). Higher scores of distress about family health and well-being were moderately correlated with higher depressive, anxiety, and PTSD symptom scores (mean=4.09, $p < 0.0001$ ). Higher CD-RISC 2 scores were correlated with lower depression, anxiety, and PTSD scores ( $p < 0.0001$ ). Higher family concerns and job insecurity predicted more severe PTSD symptoms ( $p < 0.0001$ ). This study found that significant correlations between anxiety, depression, and PTSD for pregnant and postpartum women, which were negatively correlated to resilience and adaptability.	were negatively correlated to resilience and adaptability.	2021; 10.1089/jwh.2020.8866. doi:10.1089/jwh.2020.8866
Multisystem inflammatory syndrome; children; superantigen theory;	12-Apr-21	<a href="#">SARS-CoV-2 as a superantigen in multisystem inflammatory syndrome in children (MIS-C)</a>	The Journal of Clinical Investigation	Commentary	The authors comment on work by Porritt et al. on their identification of T cell receptor (TCR) $\beta$ -chain variable domain (V $\beta$ ) usage in patients with severe MIS-C, indicating a potential role for SARS-CoV-2 as a superantigen. MIS-C is a rapidly progressing disease to multi-organ dysfunction, so the US CDC released in May 2020 a broad definition for it to capture as many patients as possible to not miss anyone. This has led to aggressive medical workups for children with benign viral syndromes. MIS-C shares similarities with Toxic Shock Syndrome; this similarity produced the hypothesis of a superantigen (SAg) effect for SARS-CoV-2. SAgS have been implicated in various acute and chronic autoimmune diseases, including Kawasaki Disease, which was initially considered similar to MIS-C. SAgS are a group of antigens that activate T cells in a non-specific manner by binding to the V $\beta$ region of the T cell receptor (TCR). A massive release of proinflammatory cytokines ensues following polyclonal non-specific activation of T cells by SAgS causing the cytokine storm. Porritt et al. examine the TCR repertoires of children with mild and severe MIS-C compared with age-matched febrile patients. TCR sequencing analysis revealed enrichment of gene segments in patients with severe MIS-C. The authors of this commentary state that enrichment of TCR in peripheral blood samples of patients with suspected MIS-C can be a biomarker to help physicians identify patients at risk for severe MIS-C.	The authors comment on work by Porritt et al. on their identification of T cell receptor (TCR) $\beta$ -chain variable domain (V $\beta$ ) usage in patients with severe MIS-C, indicating a potential role for SARS-CoV-2 as a superantigen. TCR sequencing analysis revealed enrichment of gene segments in patients with severe MIS-C.	Kouo T, Chaisawangwong W. SARS-CoV-2 as a superantigen in multisystem inflammatory syndrome in children (MIS-C) [published online ahead of print, 2021 Apr 12]. <i>J Clin Invest</i> . 2021;149327. doi:10.1172/JCI149327

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Breast feeding, breast milk, antibodies, vaccination, pregnancy	12-Apr-21	<a href="#">SARS-CoV-2-Specific Antibodies in Breast Milk After COVID-19 Vaccination of Breastfeeding Women</a>	Journal of the American Medical Association (JAMA)	Research Letter	In this prospective cohort study, the authors investigated whether maternal immunization results in secretion of SARS-CoV-2 antibodies into breast milk. 84 breastfeeding women were recruited in Israel from December 23, 2020- January 15, 2021 (mean age 34 years, range not provided). All participants received 2 doses of the Pfizer-BioNTech vaccine 21 days apart. Breast milk samples were collected before administration of the vaccine and then once weekly for 6 weeks starting at week 2 after the first dose (for a total of 504 breast milk samples). IgG and IgA levels were detected using serological assays. Mean levels of anti-SARS-CoV-2-specific IgA antibodies in the breast milk increased rapidly and were significantly elevated at 2 weeks after the first vaccine ( $p < 0.001$ ), when 61.8% of samples tested positive, increasing to 86.1% at week 4. IgA levels remained elevated for the duration of follow-up. Anti-SARS-CoV-2-specific IgG antibodies remained low for the first 3 weeks, with an increase at week 4 ( $p = 0.004$ ), when 91.7% of samples tested positive, increasing to 97% at weeks 5 and 6. No mother or infant experienced any serious adverse event. The authors conclude that there was robust secretion of SARS-CoV-2 specific IgA and IgG antibodies in breast milk for 6 weeks after maternal vaccination.	In this study, the authors assessed breast milk samples from 84 breastfeeding women for SARS-CoV-2 IgA and IgG antibodies before and up to 6 weeks after vaccination with the Pfizer-BioNTech vaccine. They found that IgA levels were significantly elevated at 2 weeks after the first dose and remained elevated, while IgG levels were significantly elevated by week 4 (one week after second dose) and remained elevated. The authors conclude that there was robust secretion of SARS-CoV-2 specific IgA and IgG antibodies in breast milk for 6 weeks after maternal vaccination.	Perl SH, Uzan-Yulzari A, Klainer H, et al. SARS-CoV-2-Specific Antibodies in Breast Milk After COVID-19 Vaccination of Breastfeeding Women. JAMA. 2021; doi:10.1001/jama.2021.5782
Neonate, brain development, growth, MRI, infant	12-Apr-21	<a href="#">Short-term developmental outcomes in neonates born to mothers with COVID-19 from Wuhan, China</a>	World Journal of Pediatrics	Original Research	This multicenter observational study conducted at 2 hospitals in Hubei Province, China from February 1- May 15, 2020 investigated brain and physical development in 72 neonates born to mothers with mild-moderate COVID-19. Brain magnetic resonance imaging (MRI) findings and physical growth parameters were observed at 44 weeks corrected gestational age. Median (IQR) gestational age of the neonates was 38 (37–39) weeks. 8 (11%) were diagnosed after birth with symptomatic COVID-19. No deaths were reported. 8 neonates underwent brain MRI at 44 weeks, 5 of whom had COVID-19. Among those 5, 3 presented abnormal MRI findings including abnormal signal in white matter, delayed myelination, brain dysplasia, and abnormal signal in the bilateral periventricular. The other 3 neonates (without COVID-19) had no significant brain MRI findings, and volumes of grey and white matter were comparable to those of healthy newborns at equivalent age ( $p > 0.05$ ). Physical growth parameters for weight, length, and head circumference at 44 weeks gestational age were $>3$ rd percentile for all neonates. The authors conclude that there was no evidence of abnormal growth development in neonates born to mothers with COVID-19, however there was evidence of abnormal brain MRI findings in neonates with COVID-19.	In this study, the authors investigated brain and physical development in 72 neonates born to mothers with mild-moderate COVID-19. No changes were observed in growth parameters assessed at 44 weeks corrected gestational age. 8 infants underwent brain MRI, 5 of whom were diagnosed with COVID-19. 3 of the 5 with COVID-19 demonstrated abnormal findings, while the 3 neonates without COVID-19 had no abnormal findings. The authors conclude that there was no evidence of abnormal growth development in neonates born to mothers with COVID-19, however there was evidence of abnormal brain MRI findings in neonates with COVID-19.	Zeng LK, Zhu HP, Xiao TT, et al. Short-term developmental outcomes in neonates born to mothers with COVID-19 from Wuhan, China. World J Pediatr. 2021;1-10. doi:10.1007/s12519-021-00426-z

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COVID-19, pediatric intensive care; pneumonia, High Flow Nasal Cannula	12-Apr-21	<a href="#">COVID-19 pneumonia successfully managed with high-flow nasal cannula in a 15-year-old boy</a>	British Medical Journal (BMJ) Case Reports	Case Report	This case report details an otherwise healthy, fully immunized 15-year-old boy with PCR -confirmed SARS-CoV-2 infection in the pediatric ICU of a Dutch hospital with 4 days of fever, dry cough, increased work of breathing and impending respiratory failure whose treatment regimen included high-flow nasal cannula (HFNC). 2 days prior to admission, amoxicillin/clavulanic acid was prescribed for lower airway symptoms resembling bacterial pneumonia. On examination, the patient had a patent airway, respiratory rate 31 breaths/minute with chest retractions and peripheral oxygen saturation of 91% with non-rebreathing mask (15L/min), increased oxygen demand, heart rate 92 beats/minute and blood pressure 108/37 mmHg. Chest x-ray revealed bilateral pneumonia with complete atelectasis of the left lung. The subsequent CT scan showed significant ground-glass opacities highly associated with COVID-19. Workup revealed elevated C reactive protein, thrombocytopenia, leukopenia, and lymphocytopenia; elevated creatinine; increased D-dimer, prothrombin time and activated partial thromboplastin time. Antibiotics were continued and chloroquine was given for 5 days. HFNC was started immediately (50L/min) with initial oxygen administration of 70% as respiratory support therapy, with the aim of avoiding intubation, with rapid decrease of tachypnea and oxygen demand. HFNC was successfully stopped after 7 days. The patient made full clinical recovery. This case illustrates HFNC as a successful respiratory support therapy in a pediatric patient with an active COVID-19 pneumonia.	This case report details an otherwise healthy 15-year-old boy with PCR-confirmed SARS-CoV-2 infection in the pediatric ICU of a Dutch hospital with impending respiratory failure whose treatment regimen included high-flow nasal cannula (HFNC). This case illustrates HFNC as a successful respiratory support therapy in a pediatric patient with an active COVID-19 pneumonia.	van Gorp G, Sanders P, van Waardenburg DA, Engel M. COVID-19 pneumonia successfully managed with high-flow nasal cannula in a 15-year-old boy. <i>BMJ Case Rep.</i> 2021;14(4):e239682. Published 2021 Apr 12. doi:10.1136/bcr-2020-239682
COVID-19; pediatric; surgery	12-Apr-21	<a href="#">Exploring the impact of the COVID-19 pandemic on pediatric surgical services: a scoping review</a>	Minerva Pediatrics	Review	The authors conducted a scoping review on the impact of the COVID-19 pandemic on pediatric surgical services. Children often manifest mild to moderate COVID-19 symptoms, and pediatric mortality has primarily been observed in patients aged <1 year with underlying comorbidities. The majority of the reviewed cases were asymptomatic in children; therefore, pediatric surgery centers have needed to take drastic measures to reduce the virus transmission. Telemedicine was introduced and outpatient consultations were conducted online, as outpatient clinics were closed. Elective surgeries were postponed and appointments were delayed while the healthcare sector was diverted towards tackling COVID-19. Case urgency was classified and triaged, leading to limited surgeries being performed, and only in COVID-19 negative patients, following an extensive screening process. The screening process consisted of online history taking and RT-PCR tests. Practices such as mouth rinse and video laryngoscopy were used, and anesthesia was introduced to restrict patients from crying, coughing, and sneezing, all as an attempt to avoid aerosolization of viral particles and safely conduct pediatric surgeries during the pandemic. Surgical trainees were also affected, as the smaller number of surgeries conducted reduced the clinical experience	The authors conducted a scoping review on the impact of the COVID-19 pandemic on pediatric surgical services. Telemedicine was introduced and outpatient consultations were conducted online as outpatient clinics were closed. Case urgency was classified and triaged, leading to limited surgeries being performed only in COVID-19 negative patients following an extensive screening process. At this time, the authors recommend that new practices be introduced, and that pediatric surgery be restored in a phased approach.	Yasmin F, Bin Zafar MD, Salman A, et al. Exploring the impact of the COVID-19 pandemic on pediatric surgical services: a scoping review. <i>Minerva Pediatr (Torino).</i> 2021. doi:10.23736/S2724-5276.21.06146-6.

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					available to medical students. Postponement of surgeries compromised the quality of life for patients; the authors recommend that new practices be introduced, and that pediatric surgery be restored in a phased approach.		
COVID-19; children; autism spectrum disorder; social distancing; social interaction	12-Apr-21	<a href="#">Social distancing and social interaction in children with autism spectrum disorder during the Covid-19 pandemic: a clinical oxymoron</a>	Minerva Pediatrics	Letter to the Editor	The authors discussed the impact of the COVID-19 pandemic on children with autism spectrum disorder (ASD). With the imposition of lockdown, it became challenging to balance the need for social distancing with the need of ASD children to receive care, treatment, and rehabilitation aimed at improving their social interaction and avoid their isolation. The authors described this combination of 2 contradictory models of interaction as an oxymoron. Interventions aimed at controlling the spread of SARS-CoV-2 are poorly compatible with interventions for promoting optimal care and rehabilitation for ASD children. Approaches such as safe distancing, face masks, and stay-at-home orders are antithetical and unsuitable for these children. The authors state that it is necessary to revise care and rehabilitation programs keeping these points in mind, with the primary objective being to ensure children with ASD have the best possible functioning and quality of life, even during these challenging times.	The authors discussed the impact of the COVID-19 pandemic on children with autism spectrum disorder (ASD). Interventions aimed at controlling the spread of SARS-CoV-2 are poorly compatible with interventions for promoting optimal care and rehabilitation for ASD children. It is necessary to revise care and rehabilitation programs keeping these points in mind, with the primary objective being to ensure children with ASD have the best possible functioning and quality of life, even during these challenging times.	Trabacca A, Craig F. Social distancing and social interaction in children with autism spectrum disorder during the Covid-19 pandemic: a clinical oxymoron. <i>Minerva Pediatr</i> (Torino). 2021. doi:10.23736/S2724-5276.21.06057-2.
COVID-19, maternal health, stress, coping	12-Apr-21	<a href="#">Stress and coping among pregnant black women during the COVID-19 pandemic</a>	Public Health Nursing	Original Research	This study explored the coping strategies and perceived stress of pregnant Black women in the United States during the COVID-19 pandemic as part of a longitudinal cohort study, The Biosocial Impact on Black Births (BIBB). A convenience sample (n=33; mean age = 28.6 ± 4.8 years; range: 20-39 years) of women who completed the BIBB survey between December 16, 2019–March 13, 2020, and the COVID-19 survey between May 21- June 23, 2020, who were pregnant during both surveys (mean gestational age at the second survey: 32.0 ± 3.4 weeks; gestational age range: 24–38 weeks), was used. Perceived stress scores did not change significantly before and during the COVID-19 pandemic. Coping strategies for stress that greatly reduced feelings of discomfort were: God, religion, or spirituality (24%), social media (24%), following the government's advice (24%), making time to relax (21%), and phone or video calls with friends and family (21%). Coping strategies that were reported to be unhelpful were: video games (63.6%), work (42.4%), and information from the government (30.3%). Higher levels of perceived stress were associated with more avoidance coping strategies both prior to (r = 0.599, p < 0.001) and during the pandemic (r = 0.474, p < 0.01). The authors recommend that maternal-child nurses and public health officials be aware of the various coping strategies Black mothers utilize during the COVID-19 pandemic.	This study explored the coping strategies and perceived stress of pregnant Black women in the United States during the COVID-19 pandemic as part of a longitudinal cohort study, The Biosocial Impact on Black Births (BIBB). The authors recommend that maternal-child nurses and public health officials be aware of the various coping strategies Black mothers utilize during the COVID-19 pandemic.	Wheeler JM, Misra DP, Giurgescu C. Stress and coping among pregnant black women during the COVID-19 pandemic. <i>Public Health Nursing</i> . 2021. doi: https://doi.org/10.1111/phn.12909

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
COVID-19; assisted reproduction; pregnancy; IVF	12-Apr-21	<a href="#">Perinatal outcomes of pregnancies resulting from assisted reproduction technology in SARS-CoV-2 infected women: a prospective observational study</a>	Fertility and Sterility	Original Research	In this multicenter prospective study of a pregnant cohort registered by the Spanish Obstetric Emergency group, the authors assessed the perinatal outcomes of assisted reproduction technology (ART) pregnancies. The study consisted of 78 centers with obstetric patients with COVID-19 compatible symptoms or SARS-CoV-2 screening from February 26-November 5, 2020. The in-vitro fertilization (IVF) group was composed of 74 (5.5%) women, whereas the spontaneous group included 1,275 (94.5%) women. IVF patients were significantly older (mean age: 39.6 years vs. 31.7 years in spontaneous conceptions, $p < 0.001$ ), and in the IVF group, older women belonged to the oocyte donor group (42.0 years (32-49) vs. 37.2 years (31-47), $p < 0.001$ ). The operative delivery rate was high in all patients, especially in the IVF group, where C-section became the most frequent delivery method (55.4%, compared to 26.1% of spontaneous). The reason for C-section was induction failure in 56.1% of IVF patients. C-sections due to induction failure were significantly higher in the IVF group compared to the spontaneous (aOR 2.79, 95% CI 1.39-5.67, $p = 0.004$ ). IVF mothers experienced significantly more gestational hypertensive disorders (16.2% (n=12) vs 4.5% (n=57) of spontaneous; aOR 5.31, 2.45-10.93; $p < 0.001$ ). The higher rate of ICU admittance observed in the IVF group (8.1% vs. 2.4% spontaneous) was attributed to pre-eclampsia (aOR 11.82, 95% CI 5.25-25.87), not to the type of conception. There were no significant between-group differences in neonatal outcomes. More robust studies comparing IVF patients with and without SARS-CoV-2 are needed to establish the real effect of the virus in terms of perinatal and obstetric outcomes in this group of patients.	The authors assessed the perinatal outcomes of pregnancies in SARS-CoV-2 infected women, comparing spontaneous and In Vitro Fertilization (IVF) pregnancies (with either own or donor oocytes) in Spain. They found that C-section was the most frequent mode of delivery in the IVF group compared to spontaneous (55.4% vs. 26.1%), and IVF women had more gestational hypertensive disorders ( $p < 0.001$ ). More robust studies comparing IVF patients with and without SARS-CoV-2 are needed to establish the actual effect of the virus in terms of perinatal and obstetric outcomes in this group of patients.	Calvo VE, Melguizo SC, Abascal-Saiz A, et al. Perinatal outcomes of pregnancies resulting from assisted reproduction technology in SARS-CoV-2 infected women: a prospective observational study. <i>Fertil Steril</i> . 2021. doi:https://doi.org/10.1016/j.fertnstert.2021.04.005
follow-up care; pandemic; pediatric, premature children; COVID-19	12-Apr-21	<a href="#">Follow-up care for premature children: the repercussions of the COVID-19 pandemic</a>	Revista Latino-Americana de Enfermagem	Original Research	This qualitative study aimed to analyze elements of the follow-up care provided to premature children amidst the COVID-19 pandemic in Brazil. The experiences of 12 mothers and 14 children aged 2 years old were assessed via an online interview conducted through a text-messaging application from May-June 2020. The premature children were born with a gestational age between 30 and 35 weeks and remained hospitalized from 5 to 58 days after birth. The children's ages ranged from 2 years and 7 months to 2 years and 10 months. None of the children had their health compromised at the time of the online interviews, and the members of only one family had COVID-19 symptoms. Gaps in medical communication, a lack of guidance, and delayed immunizations stood out as vulnerabilities in follow-up care provided to these children. Vulnerability aspects affecting child development included: social isolation measures that impeded the children from socializing with their peers, increased screen time, the manifestation of demanding behaviors and irritation, and the mothers experiencing an overload of responsibilities. The elements that strengthened maternal care included the mothers being	This qualitative study aimed to analyze elements of the follow-up care provided to premature children amidst the COVID-19 pandemic in Brazil. The authors found that gaps in medical communication, a lack of guidance, and delayed immunizations stood out as vulnerabilities in the follow-up care received. They suggest that the use of nursing call centers can help break the invisibility of longitudinal needs and promote health education actions at home to reduce infection risk.	Silva RMMD, Pancieri L, Zilly A, Spohr FA, Fonseca LMM, Mello DF. Follow-up care for premature children: the repercussions of the COVID-19 pandemic. <i>Rev Lat Am Enfermagem</i> . 2021;29:e3414. Published 2021 Apr 9. doi:10.1590/1518-8345.4759.3414

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					attentive to contagion, enjoying greater experience and satisfaction with the maternal role, spending more time with their children, and recognizing respiratory signs and symptoms, especially fever. Gaps concerning health actions in vulnerable populations such as premature children during the COVID-19 pandemic magnify weaknesses in the follow-up care and monitoring of children and highlight areas to improve care. The authors suggest that the use of nursing call centers can help break the invisibility of longitudinal needs and promote health education actions at home to reduce infection risk.		
COVID-19; Google Trends; infertility; internet searches; patient information; vaccine	12-Apr-21	<a href="#">United States internet searches for "infertility" following COVID-19 vaccine misinformation</a>	Journal of Osteopathic Medicine	Original Research	This study aimed to determine the potential influence of misinformation on the public interest in infertility topics relating to the COVID-19 vaccine. Researchers analyzed this via internet search statistics in the US through Google Trends with the search terms of "infertility," "infertility AND vaccine," and "infertility AND COVID vaccine" from February 4th, 2020 to February 3rd, 2021. They applied autoregressive integrated moving average (ARIMA) models to forecast expected values and compared to actual observed values. The peak search was immediately after December 1, 2020 which corresponds to when Dr. Wolfgang Wodarg and Dr. Micheal Yeadon petitioned to withhold emergency use authorization of the Pfizer-BioNTech vaccine. The forecasted relative search volumes (on a scale of 0-100, with 100 representing peak searches) for the search terms "infertility," "infertility AND vaccine," and "infertility AND COVID vaccine" were 45.47, 0.88, and 0.29, respectively. The actual relative search volumes at peak searching represented 119.9%, 11,251%, and 34,900% increases, respectively, when compared with forecasted values (all p<0.001). These results indicate COVID-19 vaccine misinformation corresponds with increased internet searches for topics related to infertility in the US. Dispelling misinformation and informing patients about the risks and benefits of COVID-19 vaccination may prevent unnecessary vaccine hesitancy/refusal that hinders successful vaccination efforts.	This study aimed to determine the potential influence of misinformation on the public interest in infertility topics relating to the COVID-19 vaccine. COVID-19 vaccine misinformation corresponds with increased internet searches for topics related to infertility in the US. Dispelling misinformation and informing patients about the risks and benefits of COVID-19 vaccination may prevent unnecessary vaccine hesitancy/refusal that hinders successful vaccination efforts.	Sajjadi NB, Nowlin W, Nowlin R, et al. United States internet searches for "infertility" following COVID-19 vaccine misinformation [published online ahead of print, 2021 Apr 12]. J Osteopath Med. 2021;10.1515/jom-2021-0059. doi:10.1515/jom-2021-0059
COVID-19, Indonesia, SARS-CoV-2, Children, Outcome	12-Apr-21	<a href="#">Mortality in Children with COVID-19: Lessons Learned from a Tertiary Referral Hospital in Indonesia</a>	International Journal of Infectious Diseases	Original Research	The authors of this cross-sectional study aimed to describe the prevalence and characteristics of pediatric SARS-CoV-2 cases with fatal outcomes in an Indonesian tertiary referral hospital. Data for this study were collected from medical records of patients diagnosed with SARS-CoV-2 infections at Dr. Cipto Mangunkusumo Hospital, Jakarta, Indonesia, from March to October 2020. Results showed that 490 patients were admitted and diagnosed with suspected SARS-CoV-2. Of these patients, 50 (10.2%) had a positive SARS-CoV-2 test, of which 20 (40%) died. The fatality was higher in patients >10 years old, those categorized with severe disease upon admission, those with PaO <sub>2</sub> /FIO <sub>2</sub> ratios of <300 mmHg, and those with chronic underlying diseases. The most common clinical manifestations were generalized or systemic symptoms, while	The authors of this cross-sectional study aimed to describe the prevalence and characteristics of pediatric SARS-CoV-2 cases with fatal outcomes in an Indonesian tertiary referral hospital. Data for this study were collected from medical records of patients diagnosed with SARS-CoV-2 infections at Dr. Cipto Mangunkusumo Hospital, Jakarta, Indonesia, from March to October 2020. The results showed that 20 out of 490 patients with suspected SARS-CoV-2 infection died. The	Dewi R, Kaswandani N, Karyanti MR, et al. Mortality in children with COVID-19: Lessons learned from a tertiary referral hospital in Indonesia [published online ahead of print, 2021 Apr 12]. Int J Infect Dis. 2021;S1201-9712(21)00330-1. doi:10.1016/j.ijid.2021.04.019

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					acute respiratory distress syndrome (8/20) and septic shock (7/20) were the 2 most common causes of death. One patient met criteria for MIS-C diagnosis. In conclusion, the authors highlight the high mortality rate in pediatric patients who tested positive for SARS-CoV-2. However, further studies are needed to better understand the role of SARS-CoV-2 in the mechanisms leading to death in children with comorbidities.	authors concluded that their work highlights the high mortality rate in pediatric patients with SARS-CoV-2, but state that further studies are needed to better understand the role of SARS-CoV-2 in the mechanisms leading to death in children with comorbidities.	
COVID-19; Children; Environment; Physical; SARS-CoV-2; Social	11-Apr-21	<a href="#">COVID-19 and children's health in the United States: consideration of physical and social environments during the pandemic</a>	Environmental Research	Review	This review article considers the impact of the COVID-19 pandemic on children's social, cultural, economic, and physical environments in the United States, including: A) change in exposures to environmental contaminants such as heavy metals, pesticides, disinfectants, air pollution and the built environment; B) changes in food environments resulting from increases in unemployment, food insecurity, and limited reach of existing safety nets; C) limited access to children's educational and developmental resources; D) changes in the social environments at the individual and household levels, family stressors, and mental health; and E) social injustice and racism. It is estimated the proportion of children living in food-insecure households in the US could increase by 1.6% to 9.3% points (12.4-18.0 million children) due to the pandemic, especially considering the disrupted provision of school meals and snacks which provide up to two-thirds of US children's nutritional needs. For young children, social distancing may delay or disrupt the development of socio-emotional skills; other barriers for distance learning include limited or no access to home internet, which affected 6% of US children ages 3-18 years in 2018 (9% for Hispanic, 10% Black, and 20% American Indian/Alaska Native children). The authors argue that the pandemic's impact is overlaid onto existing environmental and social disparities, disproportionately affecting children in low-income settings and impacted by structural racism. The authors conclude that considering the impact on children's social, cultural, economic, and physical environments should shape current and future policy responses to protect children's health amid pandemics.	This review article considers the indirect impact of the COVID-19 pandemic on child health, including change in exposures to environmental contaminants, changes in food environments and increased food insecurity, limited access to educational and developmental resources, changes in social environments at the individual and household levels, and worsened social and racial disparities. The authors conclude that considering the impact on children's social, cultural, economic, and physical environments should shape current and future policy responses.	Suarez-Lopez JR, Cairns MR, Sripada K, et al. COVID-19 and children's health in the United States: consideration of physical and social environments during the pandemic [published online, 2021 Apr 11]. Environ Res. 2021;111160. doi:10.1016/j.envres.2021.111160
Pregnancy, vaccination, anxiety, maternal health, fear	11-Apr-21	<a href="#">Women perception of SARS-CoV-2 vaccination during pregnancy and subsequent maternal anxiety: a prospective observational study</a>	Journal of Maternal-Fetal and Neonatal Medicine	Original Research	This prospective, observational study assessed the attitudes of 181 Italian pregnant women towards receiving the SARS-CoV-2 vaccine, and their levels of maternal anxiety induced by the vaccination campaign in Italy. A questionnaire was administered on December 27, 2020: Part-A assessed perception of vaccinations in pregnancy, while Part-B included the State-Trait-Anxiety-Inventory (STAI) for scoring trait anxiety (basal anxiety, STAI-T) and state anxiety (STAI-S). 136 (84.5%) of respondents felt vaccination was a breakthrough (vaccine positive) while the remaining 25 (25.5%) considered the vaccine not useful (vaccine negative). Among the vaccine positive group, 72 women (52.9%) were favorable to obtaining the vaccine during pregnancy, significantly more than the vaccine negative	This study assessed the attitudes of 181 Italian pregnant women towards receiving the SARS-CoV-2 vaccine, and their levels of maternal anxiety induced by the vaccination campaign in Italy. 84.5% of respondents felt positively towards vaccination, and half of that group were favorable to obtaining the vaccine during pregnancy.	Mappa I, Luviso M, Distefano FA, Carbone L, Maruotti GM, Rizzo G. Women perception of SARS-CoV-2 vaccination during pregnancy and subsequent maternal anxiety: a prospective observational study. J Matern Fetal Neonatal Med. 2021;1-4. doi:10.1080/14767058.2021.1910672

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		<a href="#">[Free Access to Abstract Only]</a>			group (28%) (p=0.022). The vaccine negative group had a lower mean educational level (p < 0.0001) and a higher prevalence of unemployment (p = 0.016). No differences were found between groups in basal anxiety STAI-T values (p = 0.813), while there was a higher prevalence of abnormal STAI-S values ≥40, indicating higher anxiety, in the vaccine negative group (negative 88.0%; 95% CI 68.7–97.4 vs positive 63.4%; 95% CI 55.3–72.0, p = 0.018). The authors conclude that most pregnant women in Italy have a positive attitude to the SARS-CoV-2 vaccine, however the vaccine campaign seems to increase maternal level of anxiety for those with a negative attitude.	However, there was increased anxiety from the vaccine campaign among those with a negative attitude towards the vaccine. The authors conclude that overall, women in Italy have a positive attitude to the SARS-CoV-2 vaccine.	
COVID-19; MIS-C; PIMS; SARS-CoV-2 infection; children	10-Apr-21	<a href="#">Is it all MIS-C? - Unusual findings in a series of nine German patients with multi-system inflammatory syndrome in children (MIS-C) after SARS-CoV2 infection</a>	International Journal of Infectious Diseases	Original Research	This paper reports on a cohort of children (n=9; [no additional age information given]) admitted to a pediatric ICU in Cologne, Germany with MIS-C between March 2020 - February 2021. All but one child came from an immigrant background, and all but one had a positive SARS-CoV-2 IgA and IgG antibody test. 3 children had a positive PCR test. All patients had high fever and hyper-inflammation, often with gastro-intestinal and cardiac involvement. The authors focus on 2 unusual cases. The first was an 11-month-old girl admitted after cardiac arrest at home. An MRI scan of her brain showed encephalomyelitis with no pathogen identified. She was discharged in a minimally conscious state and passed away within a few months. The second case was a 15-year-old boy receiving chemotherapy for a new diagnosis of acute myeloid leukemia. He was diagnosed with severe MIS-C when he developed sudden dyspnea and was mechanically ventilated. He resumed chemotherapy after being weaned from ventilation, but his pulmonary function deteriorated shortly afterwards. He passed away after 2 months of intensive care treatment. The authors state that these 2 cases indicate that MIS-C may lead to neurological conditions, and that cytotoxic treatments such as chemotherapy may be detrimental to patients with recent SARS-CoV-2 infection.	This paper reports on a cohort of children (n=9; [no additional age information given]) admitted to a pediatric ICU in Cologne, Germany with MIS-C between March 2020 - February 2021. 2 unusual cases highlighted in this report may indicate that MIS-C leads to neurological conditions, and that cytotoxic treatments such as chemotherapy are detrimental to patients with recent SARS-CoV-2 infection.	Mehler K, Jung N, Oberthuer A. Is it all MIS-C? - Unusual findings in a series of nine German patients with multi-system inflammatory syndrome in children (MIS-C) after SARS-CoV2 infection. Int J Infect Dis. 2021 Apr 14:S1201-9712(21)00355-6. doi: 10.1016/j.ijid.2021.04.044.
COVID-19; pediatric; vaccine; clinical trials	10-Apr-21	<a href="#">Covid-19 vaccines for kids</a>	NewScientist	News	The author discussed current knowledge about COVID-19 vaccines for children. On March 31, 2021, Pfizer reported the results of its phase III COVID-19 vaccine trials, involving 2260 children (age range: 12-15 years; 1130 of whom received 2 doses of the vaccine and the remaining received placebo). They reported that the vaccine was well tolerated and had a 100% efficacy, with 18 COVID-19 cases in the placebo group and none in the vaccination group. Pfizer plans on submitting the data to the United States FDA and request the use of their vaccine in children aged 12 years and over and has begun trials for children aged 6 months to 11 years. In the UK, AstraZeneca has started a phase II trial involving 6–17-year-olds (n=300, up to 240 of whom would get the COVID-19 vaccine and the remainder getting a meningitis vaccine with similar side effects). After the initial safety trial, they anticipate doing larger trials (3000-4000 participants) to assess dosing and efficacy.	In this article, the author reported the status of vaccine trials in children. Pfizer's phase III trial, the results of which were reported in late March 2021, showed 100% efficacy and tolerability in children aged 12-17 years old. Other trials currently in undergoing include AstraZeneca and CanSino Biologics and clinical trials anticipated by Johnson & Johnson and Moderna in the 12-17-year age group. The author highlighted the	Thomson H. Covid-19 vaccines for kids. New Sci. 2021;250(3329):8-9. doi:https://doi.org/10.1016/S0262-4079(21)00582-0

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
					The author highlighted the importance of inoculating teenagers before children due to their role in SARS-CoV-2 transmission and the increase in COVID-19 cases in the 11–15-year age group. The author also discussed other biologics in development: CanSino Biologics, which is conducting phase II clinical trials (n=3; age range: 6-12 years) in Taizhou, Jiangsu, China; Johnson & Johnson, which has planned studies in 12-17-year-olds; Moderna, which has planned trials in 12-17-year-olds. Additionally, the author reported the upcoming vaccine trials on pregnant women by Johnson & Johnson and Moderna.	importance of inoculating teenagers before children due to their role in SARS-CoV-2 transmission and the increase in COVID-19 cases in the 11–15-year age group.	
Pregnancy, C-section, preterm birth, low birth weight, maternal outcomes, neonatal outcomes	10-Apr-21	<a href="#">COVID-19 infection during pregnancy: a systematic review to summarize possible symptoms, treatments, and pregnancy outcomes</a>	medRxiv	Preprint (not peer-reviewed)	This systematic review summarized symptoms, treatments, and pregnancy outcomes of women infected with SARS-CoV-2 during their pregnancy. 4 databases (Medline, Web of Science, Scopus, and CINAHL) were searched on March 25, 2020. A total of 9 studies were selected, comprising 101 infected pregnant women (mean age 30 years, range not provided). Fever (66.7%) and cough (39.4%) were the major symptoms among pregnant women, similar to non-pregnant population. However pregnant women also experienced less typical symptoms such as sore throat, myalgia, and poor appetite. Common antibiotic therapies administered included cefoperazone sodium, cephalosporins, quinolones, and macrolides, while lopinavir, ritonavir, arbidol, and oseltamavir were commonly used antivirals. Delivery-related information was available for 56 live births. Of the 56 deliveries, 83.9% were delivered via C-section, and around 30.4% of the total deliveries were premature. Among these cases, one maternal death and one neonatal death were also reported following SARS-CoV-2 infection. 17.9% of newborns had low birth weight (LBW). Only one of the included studies reported evidence of mother-to-child transmission of COVID-19 infection after 36 hours of delivery. The authors conclude that SARS-CoV-2 infection during pregnancy increases the risk of several adverse outcomes, including high rates of cesarean delivery, low birth weight, and preterm birth.	In this review, the authors assessed symptoms, treatments, and pregnancy outcomes of women infected with SARS-CoV-2 during pregnancy. Fever and cough were the most common symptoms. Of 56 deliveries, 83.9% were via C-section and 30.4% were premature. 17.9% of newborns had low birth weight. One maternal and one infant death were reported. One study reported evidence of vertical transmission. The authors conclude that SARS-CoV-2 infection during pregnancy increases the risk of several adverse outcomes, including high rates of cesarean delivery, low birth weight, and preterm birth.	Khan MM, Khan MN, Mustagir MG, Rana J, Haque MR, Rahman MM. COVID-19 infection during pregnancy: a systematic review to summarize possible symptoms, treatments, and pregnancy outcomes. MedRxiv. 2021; doi.org/10.1101/2020.03.31.20049304
SARS-CoV-2, COVID-19, Online survey, Congenital heart surgery, Pandemic, Congenital heart disease	10-Apr-21	<a href="#">Covid-19 Pandemic Implications in Pediatric and Congenital Heart Surgery in Brazil</a>	Cardiology in the Young	Article	The authors of this study conducted a national online survey November 10-22, 2020, to study the COVID-19 pandemic implications in Brazilian Pediatric and Congenital Heart Surgery programs. There were responses from 46 high-volume centers, representing all states where there were Pediatric and Congenital Heart Surgery programs. The results showed that all but one center experienced a notable decrease in surgical volume, with 8 centers (17.4%) reporting a >75% reduction in surgical volume during the pandemic. In addition, there was a shift in case-mix in 41 centers (89.1%) towards more complex cases. More than one-third of the responders revealed increased mortality in 2020 compared to previous years, and 20 centers (43.5%) had at least one patient who tested positive for SARS-CoV-2 in the post-operative period, for a total of 48 patients. Mortality in post-	The authors of this study conducted a national online survey to study the COVID-19 pandemic implications in Brazilian Pediatric and Congenital Heart Surgery programs. They found that Brazilian Pediatric and Congenital Heart Surgery programs were severely affected by decreased surgical volume, shift in case-mix towards more complex cases, and increased mortality during	Augusto Miana L, Manuel V, Antoniali F, et al. Covid-19 pandemic implications in pediatric and congenital heart surgery in Brazil [published online ahead of print, 2021 Apr 6]. Cardiol Young. 2021;1-19. doi:10.1017/S1047951121001608

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					operative infected patients was 45.8% (22 patients). In conclusion, Brazilian Pediatric and Congenital Heart Surgery programs were severely affected by decreased surgical volume, shift in case-mix towards more complex cases, and increased mortality. Almost half of the programs related post-operative SARS-CoV-2 infection rates, with high mortality.	the pandemic. Almost half of the programs related postoperative SARS-CoV-2 infection rates, with high mortality.	
COVID-19; child; household; secondary attack rate; transmission	9-Apr-21	<a href="#">Intra-Household and Close-Contact SARS-CoV-2 Transmission Among Children - a Systematic Review</a>	Frontiers in Pediatrics	Review	The authors systematically reviewed the current evidence on transmission of SARS-CoV-2 to and by children. 67 original research articles, case reports, brief communications, and commentaries were identified on 11 August 2020 via PubMed and preprints uploaded on medRxiv. Data on transmission of SARS-CoV-2 on or by children was found to be scarce. Several studies showed a lower seropositivity of children compared to adults, suggesting a lower susceptibility of especially younger children. Most insight currently comes from household studies suggesting that children are predominantly infected by their household contacts. The contagiousness seems to be comparable between children and adults, based on the meta-analysis of included studies. Nevertheless, the findings of (1) few outbreak clusters reported from pre-schools and kindergartens and (2) the lower positivity rates of SARS-CoV-2 RT-PCRs in children compared to adults during the current second infection wave in Europe, despite open schools at the beginning of the infection wave in many European countries – support the notion that especially young children cannot be viewed as drivers of the pandemic. Larger and systematic studies are urgently needed to better understand the age-dependent patterns of SARS-CoV-2 transmission, and thereby design more effective non-pharmaceutical interventions to reduce disease transmission.	The authors systematically reviewed the current evidence on transmission of SARS-CoV-2 to and by children. Most insight currently comes from household studies suggesting that children are predominantly infected by their household contacts. Few outbreak clusters reported from pre-schools and kindergartens and low positivity rates of SARS-CoV RT-PCRs in children compared to adults, despite school re-opening in Europe, suggest that especially young children cannot be viewed as drivers of the pandemic.	Spielberger BD, Goerne T, Geweniger A, et al. Intra-Household and Close-Contact SARS-CoV-2 Transmission Among Children - a Systematic Review. Front Pediatr. 2021;9:613292. doi:10.3389/fped.2021.613292
COVID-19, children; autism spectrum disorder; telehealth	9-Apr-21	<a href="#">Short report on research trends during the COVID-19 pandemic and use of telehealth interventions and remote brain research in children with autism spectrum disorder</a>  <a href="#">[Free Access to Abstract Only]</a>	Autism	Short Report	The authors summarized existing protocols, guidelines, and potential opportunities for safe conduct of online and in-person basic science and applied research amidst the COVID-19 pandemic. They also described their own experience with remote therapy delivery using telehealth and the use of neuro-imaging techniques to assess intervention effects for 6 school-aged children with autism spectrum disorder (ASD) in the United States [children's ages and dates not specified]. The pilot data suggest that children were able to engage in 60 minutes of either creative or standard, seated play activities delivered through Zoom, twice a week, for 8 weeks. A family/child-centered, collaborative model was used to ensure that the intervention fit with the parent and child's level of comfort, ability, and functioning. Feedback from both parents and children with ASD had been generally positive (mean satisfaction score: children gave a 4.4 and parents gave a 4.3 on a 5-point Likert-type scoring range). Participants showed training-related improvements in gross motor, balance, and imitation skills [data to be reported in future publication]. The authors are currently	The authors summarized existing protocols, guidelines, and potential opportunities for safe conduct of online and in-person basic science and applied research amidst the COVID-19 pandemic. They also described their own experience with remote therapy delivery using telehealth and the use of neuro-imaging techniques to assess intervention effects for school-aged children with autism spectrum disorder (ASD) in the United States. The pilot data showed training-related improvement after	Su WC, Srinivasan S, Cleffi C, et al. Short report on research trends during the COVID-19 pandemic and use of telehealth interventions and remote brain research in children with autism spectrum disorder. Autism. 2021. doi:10.1177/13623613211004795.

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					assessing for similarity in the effects of telehealth and face-to-face intervention effects using neuro-imaging-based pre- and post-tests. The report suggests that telehealth-based online platforms may be used to resume interventions and assessments during the pandemic.	Zoom-based sessions, and the intervention received positive feedback from the parents/participants.	
COVID-19; pediatric; intussusception ; United Kingdom	9-Apr-21	<a href="#">Pediatric Intussusception During the SARS-CoV-2 Pandemic [Free Access to Abstract Only]</a>	Pediatric Emergency Care	Letter to the Editor	The authors present a pediatric intussusception case in the United Kingdom during the COVID-19 pandemic. A 10-month-old female infant presented with 2 weeks of intermittent coryzal symptoms that ended with 2 days of bilious vomiting with red mucous stool [date not specified]. A nasal swab was obtained for SARS-CoV-2 testing. An ultrasound confirmed intussusception, and the infant underwent fluoroscopic assessment. The intussusception was found to extend up to the rectum, and air-enema reduction was performed under PPE since it was considered an aerosol-generating procedure. After 5 unsuccessful attempts, surgical reduction was performed with all operating room personal in PPE, using open surgery. Intraoperative findings demonstrated an incidental Waugh syndrome (intussusception with malrotation), and successful reduction was possible without loss of bowel along with a Ladd procedure. The patient was returned to an isolation ward postoperatively. The nasal swab results returned after 24 hrs and confirmed SARS-CoV-2 infection. The patient's postoperative course was uneventful, and she was subsequently discharged. Because of the lag of 24 hrs in obtaining SARS-CoV-2 test results, this case highlights the importance of considering all pediatric intussusceptions as SARS-CoV-2 positive during the pandemic and performing emergency room examinations, ultrasound investigations, air-enema reductions, and open surgical interventions under full PPE.	The authors present a pediatric intussusception case in the United Kingdom during the COVID-19 pandemic. The patient underwent surgical intervention; however, her nasal swab results returned 24 hrs later as positive for SARS-CoV-2. Because of the lag of 24 hrs in obtaining SARS-CoV-2 test results, this case highlights the importance of considering all pediatric intussusceptions as SARS-CoV-2 positive during the pandemic and performing emergency room examinations, ultrasound investigations, air-enema reductions, and open surgical interventions under full PPE.	Saxena AK, Macdonald A, Jobson M, et al. Pediatric Intussusception During the SARS-CoV-2 Pandemic. <i>Pediatr Emerg Care</i> . 2021. doi:10.1097/PEC.0000000000002452.
COVID-19; pediatric; telemedicine; medical screening evaluation; triage; United States	9-Apr-21	<a href="#">Telemedicine Medical Screening Evaluation Expedites the Initiation of Emergency Care for Children</a>	Pediatric Emergency Care	Original Research	The authors aimed to describe the novel application and effect of a telemedicine medical screening evaluation (Tele-MSE) at triage on quality metrics in the pediatric emergency department (PED) in the United States. They conducted a retrospective quasi-experimental pre-post intervention study to compare patients who received a Tele-MSE at triage from December 2017-November 2019 (n=557) to control patients who received standard triage from December 2015-November 2017 (n=557). The study participants in each group were matched by age [mean age not specified], diagnosis, weekday versus weekend, and season of presentation. Compared with controls, patients who received a Tele-MSE at triage had a shorter median door-to-provider time (median difference=8.4 min; 95% CI 6-11 min), time-to-medication order (median difference=27.3 min; 95% CI 22.9-35.2 min), time-to-consult order (median difference=10 min; 95% CI 5.3-12.7 min), and PED length of stay (median difference=0.4 hrs; 95% CI 0.3-0.6 hrs). The findings indicate that Tele-MSE is an innovative modality to expedite the initiation of emergency care and reduce PED length of	The authors conducted a retrospective quasi-experimental pre-post intervention study to compare patients who received a Tele-MSE at triage from December 2017-November 2019 (n=557) to control patients who received standard triage from December 2015-November 2017 (n=557) in the United States. The findings indicate that Tele-MSE can expedite the initiation of emergency care and reduce PED length of stay for children. This novel intervention offers potential opportunities to optimize	Friedman J, Lame M, Clark S, et al. Telemedicine Medical Screening Evaluation Expedites the Initiation of Emergency Care for Children. <i>Pediatr Emerg Care</i> . 2021. doi:10.1097/PEC.0000000000002428.

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					stay for children. This novel intervention offers potential opportunities to optimize provider and patient satisfaction and safety during the COVID-19 pandemic.	provider and patient satisfaction and safety during the COVID-19 pandemic.	
COVID-19; pediatric; MIS-C; biological agents; treatment; Turkey	9-Apr-21	<a href="#">Role of Biological Agents in the Treatment of SARS-CoV-2-Associated Multisystem Inflammatory Syndrome in Children</a>	Journal of Clinical Rheumatology	Article	This observational, descriptive review study of medical records evaluated the role of biological agents in the treatment of severe MIS-C in patients with confirmed SARS-CoV-2 infection or history of COVID-19 exposure. The study was performed in a pediatric ICU (PICU) in Turkey between 1 September-1 November 2020. 33 patients (median age=9 yrs, IQR 2-17 yrs; n=21 male) were included. The most common signs and symptoms during the disease course were fever (100%) and abdominal pain (75.5%). Clinical features of 63.6% patients were consistent with Kawasaki disease/Kawasaki disease shock syndrome, and 36.4% were consistent with secondary hemophagocytic lymphohistiocytosis/macrophage activation syndrome. Myocardial dysfunction and/or coronary artery abnormalities were detected in 18 (54.5%) patients during the PICU stay. IV immunoglobulin and corticosteroids were given to all 33 patients. Anakinra was administered to 23 patients (69.6%). There was an increase in lymphocyte (p=0.02) and platelet (p<0.001) counts and a decrease in ferritin (p=0.008), B-type natriuretic peptide (p<0.001), and troponin (p=0.04) levels at the end of the first week of treatment in patients who were given biological therapy. At the end of the first week of biological agent treatment, a significant increase in left ventricular ejection fraction was observed (p<0.001). 2 patients were switched to tocilizumab because of an insufficient response to anakinra. The mortality rate of the MIS-C patients admitted to the PICU was 6% (n=2). The findings suggest that administration of biological agents may be beneficial for treating severe MIS-C.	This observational, descriptive review study of medical records evaluated the role of biological agents in the treatment of severe MIS-C in patients with confirmed SARS-CoV-2 infection or history of COVID-19 exposure in a pediatric ICU in Turkey. The findings suggest that administration of biological agents may be beneficial for treating severe MIS-C.	Çelikel E, Tekin ZE, Aydin F, et al. Role of Biological Agents in the Treatment of SARS-CoV-2-Associated Multisystem Inflammatory Syndrome in Children. J Clin Rheumatol. 2021. doi:10.1097/RHU.0000000000001734.
COVID-19, child health, stress, obesity, sleep	9-Apr-21	<a href="#">Indirect consequences of COVID-19 on children's health</a>	Hong Kong Medical Journal	Letter to the Editor	In this letter to the editor, the authors observe that children may not physically suffer as much from COVID-19 as adults, but that school closures and social isolation may still be impacting their health. Disruptions to routine healthcare services, daily routines, developmental delays and anxiety, and increased susceptibility to cyberbullying can lead to low self-esteem, depression and anxiety, poor sleep patterns, and even death. This impact is more significant among children with pre-existing physical and psychosocial needs, those from migrant backgrounds, and other complicating factors. The authors state that regular and emergency child and adolescent psychiatric services must be maintained, and future research is needed in order to mitigate these described negative impacts, as the world transitions to a time after the COVID-19 pandemic.	In this letter to the editor, the authors observe that children may not physically suffer as much from COVID-19 as adults, but that school closures and social isolation may still be impacting their health. The authors state that regular and emergency child and adolescent psychiatric services must be maintained, and future research is needed in order to mitigate negative impacts.	Leung KKY, Chu SPW, Hon KL, et al. Indirect consequences of COVID-19 on children's health. Hong Kong Med J. 2021; 27. doi: https://doi.org/10.12809/hkmj208694

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SARS-CoV-2; children; community transmission; nasopharyngeal swabs	9-Apr-21	<a href="#">Infectivity of severe acute respiratory syndrome coronavirus 2 in children compared with adults</a>	Canadian Medical Association Journal (CMAJ)	Original Research	This study aimed to quantify the infectivity of SARS-CoV-2 in nasopharyngeal samples from children compared with adults. Researchers obtained nasopharyngeal swabs from adult and pediatric cases of COVID-19 and from their contacts who tested positive for SARS-CoV-2 in Manitoba, Canada between March and December 2020. They compared viral growth in cell culture, cycle threshold values from the RT-PCR of the SARS-CoV-2 envelope gene, and the 50% tissue culture infective dose (TCID <sub>50</sub> /mL). Among the 305 samples positive for SARS-CoV-2 by RT-PCR, 97 samples were from children aged ≤ 10 years, 78 from children aged 11-17 years, and 130 from adults (≥ 18 yr). Viral growth in culture was present in 31% of samples, including 18 (19%) samples from children aged ≤ 10 years, 18 (23%) from children aged 11-17 years and 57 (44%) from adults (all children vs. adults, OR 0.45, 95% CI: 0.28-0.72), showing children having 55% reduced odds of growing live virus. The cycle threshold was 25.1 (95% CI: 17.7-31.3) in children ≤ 10 years, 22.2 (95% CI: 18.3-29.0) in children aged 11-17 years and 18.7 (95% CI: 17.9-30.4) in adults (p < 0.001). The median TCID <sub>50</sub> /mL was significantly lower in children aged 11-17 years (316, IQR: 178-2125) than adults (5620, IQR 1171-17800, p < 0.001). Thus, compared with adults, swabs from children that tested positive for SARS-CoV-2 were less likely to grow virus in culture, had higher cycle thresholds, and had lower viral concentrations, suggesting that children are not the main drivers of SARS-CoV-2 transmission.	This study aimed to quantify the infectivity of SARS-CoV-2 in nasopharyngeal samples from children compared with adults. Children with nasopharyngeal swabs that tested positive for SARS-CoV-2 were less likely to grow virus in culture and had higher cycle thresholds and lower viral concentrations, suggesting that children are not the main drivers of SARS-CoV-2 transmission.	Bullard J, Funk D, Dust K, et al. Infectivity of severe acute respiratory syndrome coronavirus 2 in children compared with adults [published online ahead of print, 2021 Apr 9]. CMAJ. 2021;cmaj.210263. doi:10.1503/cmaj.210263
COVID-19; children; MIS-C	9-Apr-21	<a href="#">Management of COVID-19-associated multisystem inflammatory syndrome in children: A comprehensive literature review</a>	Progress in Pediatric Cardiology	Review	The authors reviewed the management of COVID-19 associated MIS-C in the pediatric population. A search was conducted on AMED, EBM Reviews, Embase, Healthstar, MEDLINE, ERIC, and Cochrane databases for studies that reported treatments and outcomes of MIS-C. 15 articles underwent full-text review (n=386 total patients; mean age not specified). The majority of children received intravenous immunoglobulin (77%) and some form of anticoagulation (63%). Steroid use was also common (44%), with immunotherapy used only in severe cases (n=72). Outcomes reported included pediatric ICU admission (77%), need for extracorporeal membrane oxygenation (5%), and mortality (1.3%). The disease appears to be a SARS-CoV-2 related post-infection phenomenon that is distinct from Kawasaki disease. Although outcomes are largely favorable, there is significant variation in treatment. Most management mirrors that of KD, which may not be the most effective in all cases given the different MIS-C phenotypes. Further research is required to evaluate the effectiveness of current MIS-C treatments and to determine more refined therapies.	The authors reviewed the management of COVID-19 associated MIS-C in the pediatric population. Although outcomes are largely favorable, there is significant variation in treatment. Most management mirrors that of KD, which may not be the most effective in all cases given the different MIS-C phenotypes. Further research is required to evaluate the effectiveness of current MIS-C treatments and to determine more refined therapies.	Kiss A, Ryan PM, Mondal T. Management of COVID-19-associated multisystem inflammatory syndrome in children: A comprehensive literature review. Prog Pediatr Cardiol. 2021:101381. doi:doi.org/10.1016/j.ppedcard.2021.101381.
COVID-19; breast-feeding; convalescent	9-Apr-21	<a href="#">Comparison of Severe Acute Respiratory</a>	Breastfeeding Medicine	Original Research	The authors compared the binding capacity of antibodies specific to the receptor-binding domain (RBD) of SARS-CoV-2 between human milk and serum from COVID-19-recovered women to	The authors compared the binding capacity of antibodies specific to the receptor-	Demers-Mathieu V, DaPra C, Medo E. Comparison of Severe Acute Respiratory Syndrome

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antibodies; passive immunity; United States		<a href="#">Syndrome Coronavirus 2-Specific Antibodies' Binding Capacity Between Human Milk and Serum from Coronavirus Disease 2019-Recovered Women [Free Access to Abstract Only]</a>			determine whether human milk can be used as oral antibody therapy. The areas under the curve (AUCs) for IgA, IgM, and IgG specific to the SARS-CoV-2 RBD in human milk and serum samples were measured using enzyme-linked immunosorbent assay. Milk samples were collected from 12 COVID-19-recovered women (mean age=32 ± 4 years, age range=26-40 years; SARS-CoV-2 infection between March 28 - October 13, 2020, mean elapsed time from infection to sample collection=3 ± 2 months). Then, serum samples were collected from 10 COVID-19-recovered women (mean age=32 ± 8 years, age range=22-46 years; SARS-CoV-2 infection between March 28 - May 8, 2020, mean elapsed time from infection to sample collection=1.2 ± 0.4 months). The results showed that SARS-CoV-2 RBD-specific antibody titers differed between human milk and serum samples from COVID-19-recovered women. When the AUCs were not divided by the antibody concentration, SARS-CoV-2 RBD-specific IgA, IgM, and IgG levels were higher in the serum sample group than the human milk group (p<0.001). However, the titers of SARS-CoV-2 RBD-specific IgM (AUC/µg of IgM) and IgG (AUC/µg of IgG) were higher in human milk samples than serum samples (p<0.05). Furthermore, the titer of SARS-CoV-2 RBD-specific IgA (AUC/mg of IgA) was higher in the serum sample group than in the human milk group (p<0.01). The authors concluded that human milk antibodies specific to the RBD of SARS-CoV-2 must be purified to obtain comparable binding capacity observed with SARS-CoV-2 RBD-specific serum antibodies.	binding domain (RBD) of SARS-CoV-2 between human milk and serum from COVID-19-recovered women to determine whether human milk can be used as oral antibody therapy. The findings suggest that SARS-CoV-2 RBD-specific antibody titers differed between human milk and serum samples from COVID-19-recovered women. Human milk antibodies specific to the RBD of SARS-CoV-2 must be purified to obtain comparable binding capacity observed with SARS-CoV-2 RBD-specific serum antibodies.	Coronavirus 2-Specific Antibodies' Binding Capacity Between Human Milk and Serum from Coronavirus Disease 2019-Recovered Women. Breastfeed Med. 2021. doi:10.1089/bfm.2020.0381.
Pregnancy, critical illness, ethnicity, C-section, ICU	9-Apr-21	<a href="#">The severity of COVID-19 among pregnant women and the risk of adverse maternal outcomes</a>  <a href="#">[Free Access to Abstract Only]</a>	International Journal of Gynaecology and Obstetrics	Original Research	In this cross-sectional study, the authors evaluated the relationship between the severity of COVID-19 during pregnancy and the risk of adverse maternal outcomes. 258 symptomatic pregnant women hospitalized due to confirmed SARS-CoV-2 from March 2020-January 2021 at a hospital in Iran were included [age range not provided]. Demographic and obstetric characteristics, laboratory findings, and adverse maternal outcomes were recorded from the patients' medical records. 206 (79.8%) pregnant women had mild to moderate disease, 43 (16.7%) had severe disease, and 9 (3.5%) were in the critical stage of the disease. 8 women (3.1%) died and 33 (12.8%) were admitted to the ICU. The most important demographic factors associated with the severity of the disease were ethnicity (with Iranians making up the highest proportion of critically ill women) (p=0.001), presence of underlying conditions (p=0.001), greater maternal age (p=0.03), and higher parity (p=0.05). The severity of the disease was significantly associated with increased cesarean delivery (p=0.001) and admission to the ICU (p=0.001). The authors conclude that the most important demographic factors related to the severity of disease were ethnicity, underlying conditions, maternal age, and parity.	In this article, the authors evaluated the relationship between the severity of COVID-19 during pregnancy and the risk of adverse maternal outcomes among 258 pregnant women in Iran. They concluded that the most important demographic factors related to the severity of disease were ethnicity (Iranian), presence of underlying conditions, increased maternal age, and higher parity. Greater severity of disease was also associated with increased likelihood of C-section delivery and admission to the ICU.	Samadi P, Alipour Z, Ghaedrahmati M, Ahangari R. The severity of COVID-19 among pregnant women and the risk of adverse maternal outcomes. Int J Gynaecol Obstet. 2021; doi:10.1002/ijgo.13700

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COVID-19; neonates; SARS-CoV-2; Severity	9-Apr-21	<a href="#">Clinical features and outcomes of neonatal COVID-19: A systematic review</a>	Journal of Clinical Virology	Letter to the Editor	The authors conducted a systematic review to determine the clinical manifestations of neonatal COVID-19 and outcomes based on severity groups. They included studies from 1 December 2019 to 1 August 2020 that reported neonates ( $\leq 28$ days) who tested positive for SARS-CoV-2 by RT-PCR. Descriptive statistics were used to compare mildly-to-moderately ill neonates (non-severe group) with severely-to-critically ill neonates (severe group). 67 studies were included in the review, and quality assessment scores were moderate for the 52 case series (mean=3.06 on 4-point Murad Tool) and the 15 cohort studies (mean=5 on Newcastle-Ottawa Scale, with >6 indicating high quality). Of 99 total SARS-CoV-2-positive neonates, 27 (27.3%) were asymptomatic. Among symptomatic neonates, respiratory symptoms were common (dyspnea 36.1%, nasal symptoms 19.4%, cough 18.1%), and 55.6% had a fever. 30 neonates (30.3%) had severe/critical illness. Compared to the non-severe group, more neonates in the severe group were symptomatic ( $p<0.001$ ), were admitted to the ICU ( $p<0.001$ ), had dyspnea ( $p<0.001$ ), and had abnormal chest radiographic findings ( $p=0.038$ ). Mildly-to-moderately ill neonates had increased incidence of fever ( $p=0.006$ ) and gastro-intestinal symptoms ( $p=0.01$ ). The prognosis of COVID-19 neonates with COVID-19 was favorable, with no serious complications or mortalities. Diagnosis of severe illness may be confounded by co-existing respiratory diseases present in many neonates with critical COVID-19. Contrary to adults, the presence of fever did not predict more severe disease in neonates.	The authors describe the findings from a systematic review on the clinical manifestations of neonates with COVID-19 and the outcomes based on severity groups. While the prognosis was favorable for all, more neonates with severe illness (vs. non-severe) were symptomatic, were admitted to the ICU, had dyspnea, and had abnormal chest radiographic findings.	Lim KH, Soong FSJ, Low YF, et al. Clinical features and outcomes of neonatal COVID-19: A systematic review. Journal of Clinical Virology. 2021. ISSN 1386-6532. <a href="https://doi.org/10.1016/j.jcv.2021.104819">https://doi.org/10.1016/j.jcv.2021.104819</a> .
COVID-19; elective surgery; persistent COVID-19; anesthesia	9-Apr-21	<a href="#">Anesthesia and surgery for positive COVID-19 asymptomatic pediatric patients: how long should we wait?</a>	Paediatric Anaesthesia	Original Research	The authors describe the patterns of laboratory values of SARS-CoV-2 positive patients, focusing on those defined as "persistently positive" to elucidate a safe pathway to bring patients to surgery. They recruited pediatric patients [age not specified] scheduled for elective procedures under anesthesia at the Children's National Hospital, United States, from April 3 - September 1, 2020, who persistently tested positive for the SARS-CoV-2 PCR test. "Persistently positive" was defined as patients who tested positive multiple times, with the cycle time (Ct) depicting the number of PCR cycles required to reach a detectable viral load (higher Ct indicates lower viral load and perhaps lower transmissibility). Of the 5,595 patients tested, 103 children (1.84%) tested positive for SARS-CoV-2. 25/29 patients were persistently positive, and their median Ct values were measured over time. The results showed that the estimated Ct values at Day 0, 14, and 28 were 30.75(95%: 28.02-33.49), 35.17(95% CI: 30.28-40.06), and 38.04 (95% CI: 33.88, 42.19) respectively. The authors found that by day 14, 81% of patients reached a Ct value of 35, which increased to 86% by day 28. Ct values greater than 35, therefore likely correlate with resolving infection. These findings suggest that elective surgery should be delayed for a minimum of 28 days from the initial	The authors describe the patterns of laboratory values of SARS-CoV-2 positive pediatric patients, focusing on those defined as "persistently positive" to elucidate a safe pathway to bring patients to surgery in the United States. They recommend that elective surgeries be delayed by 28 days after a positive SARS-CoV-2 test since 86% of patients in their cohort had a cycle time (Ct) value of 35 by day 28, indicating resolving infection. Further research is warranted to better determine the optimal length of delay of anesthesia for asymptomatic COVID-19 patients, as well as	Geng-Ramos G, Cronin J, Challa C, et al. Anesthesia and surgery for positive COVID-19 asymptomatic pediatric patients: how long should we wait? [published online, 2021 Apr 9]. Paediatr Anaesth. 2021;10.1111/pan.14191. doi:10.1111/pan.14191

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
					positive test, allowing time to reduce transmissibility and minimize anesthesia risks in asymptomatic pediatric patients. Even with a 28-day delay, the risk of infection is not zero; therefore, full PPE remains essential for all aerosol-generating procedures. Further research is warranted to better determine the optimal length of delay of anesthesia for asymptomatic COVID-19 patients, as well as how testing and Ct values can guide our practice.	how testing and Ct values can guide our practice.	
COVID-19; long COVID; pediatric	9-Apr-21	<a href="#">Preliminary Evidence on Long Covid in children</a>	Acta Paediatrica	Original Research	The authors assessed persistent symptoms in children (<18 years) previously diagnosed with COVID-19 between March-October 2020 in this cross-sectional study at a hospital in Rome, Italy. Caregivers were interviewed using a questionnaire developed by the Long COVID ISARIC study group, and participants were evaluated by 2 pediatricians between September 1-January 1, 2021. Study participants (n=129) were diagnosed with COVID-19 between March-November 2020 (mean age: 11 ± 4.4 years; 48.1% female). 33/129 (25.6%) were asymptomatic during the acute phase, while the remaining (74.4%, n=96) had symptoms. 6 (4.7%) patients were hospitalized, and 3 (2.3%) needed pediatric ICU admission. Of note, 3 patients developed MIS-C, and 2 developed myocarditis after their COVID-19 diagnosis. Patients were assessed 162.5 ± 113.7 days after COVID-19 diagnosis, with 41.8% (n=54) completely recovering, 35.7% (n=46) with 1-2 symptoms, and 22.5% (n=29) reporting 3 or more symptoms. Insomnia (18.6%), respiratory symptoms (pain and chest tightness) (14.7%), nasal congestion (12.4%), fatigue (10.8%), muscle pain (10.1%), joint pain (6.90%), and concentration difficulties (10.1%) were most commonly reported, particularly in those assessed >60 days after diagnosis. 20/30 (66.6%) children assessed 60-120 days after diagnosis had at least 1 persistent symptom (13 children had 1 or 2 symptoms, while 7 patients had 3 or more symptoms). 29/68 (42.6%) children assessed after 120 days or more were still affected by the symptoms mentioned above. These findings suggest that COVID-19 can have a long-term impact on children as well, including those with asymptomatic/paucisymptomatic COVID-19.	The authors assessed persistent symptoms in children (<18 years) previously diagnosed with COVID-19 between March-October 2020 in this cross-sectional study at a hospital in Rome, Italy. 66.6% of children assessed 60-120 days after diagnosis had at least 1 persistent symptom, and 42.6% of children assessed at 120 days or more from diagnosis were still symptomatic. These findings suggest that COVID-19 can have a long-term impact on children as well, including those with asymptomatic/paucisymptomatic COVID-19.	Buonsenso D, Munblit D, De Rose C, et al. Preliminary Evidence on Long Covid in children [published online, 2021 Apr 9]. Acta Paediatr. 2021;10.1111/apa.15870. doi:10.1111/apa.15870
COVID=19; clinical profile; hospital admissions	9-Apr-21	<a href="#">Clinical Profile and Outcome of Children Infected with SARS-CoV-2</a>	Indian Journal of Pediatrics	Letter to the Editor	The authors describe the clinical profile of children (n=68; age: 1 month-12 years) infected with SARS-CoV-2 and admitted at KIMS Hubballi between April-September 2020. 57% (n=39) of children admitted were female (F: M ratio 1.3:1) with a median age of 5.5 years (IQR: 2-9.5 years), and the majority age group affected was 6-12 years (47%). Only 20 (29%) were symptomatic at the time of admission, while the remaining were found to be positive during family/contact/traveler's screening. 71% (n=48) were mild/asymptomatic, 26% (n=18) were moderate, 3% (n=2) were severe, and none of these cases were critical as per the severity classification of WHO. Among the 20 symptomatic patients, the common symptoms in descending frequency were fever (n=14,	The authors describe the clinical profile of children (n=68; age: 1 month-12 years) infected with SARS-CoV-2 and admitted at KIMS Hubballi between April-September 2020. Findings showed that most children with COVID-19 were asymptomatic. Among symptomatic children, fever was predominant, and GI symptoms were observed in	Ratageri VH, M S, Pawar GR, Illalu S, Wari PK. Clinical Profile and Outcome of Children Infected with SARS-CoV-2 [published online, 2021 Apr 9]. Indian J Pediatr. 2021;1. doi:10.1007/s12098-021-03720-w

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					70%), cough (n=10, 51%), and difficulty in breathing (n=4, 20%). 4 children had gastrointestinal (GI) symptoms like loose stool and vomiting. 2 children had co-morbidities (cerebral palsy and congenital heart disease), and 6 children (9%) had leucopenia (WBC <5,000), 8 (12%) had thrombocytopenia (<150,000). 6 children received amoxicillin, and none received antivirals. The repeat nasopharyngeal swabs taken for 18 cases after an average of 7 days were negative. The average duration of hospital stay was 11 days, and there were no deaths. In conclusion, most children with COVID-19 were asymptomatic. Among symptomatic children, fever was predominant, and GI symptoms were observed in few children. All the symptomatic children improved with supportive therapy.	few children. All the symptomatic children improved with supportive therapy.	
SARS-CoV-2; school reopening; resurgence; Bayesian model	9-Apr-21	<a href="#">Reopening Italy's Schools in September 2020: A Bayesian Estimation of the Change in the Growth Rate of New SARS-CoV-2 Cases</a>	medRxiv	Preprint (not peer-reviewed)	The authors aimed to study the growth rate of the total number of SARS-CoV-2 infections in all the Italian regions, before and after the school re-opening (September - October 2020), to investigate if there was an association between schools re-opening and the resurgence of the virus in Italy. Using regional, population-wide data, a Bayesian piecewise linear regression model was created looking at the number of daily SARS-CoV-2 infections; a changepoint in the growth rate of those confirmed cases was then estimated and compared to changepoints with the school opening dates. Of the 21 Italian regions, 15 (71%) of them have a changepoint within 28 days from the date of a school opening. In particular, the average number of days between the opening and the changepoint is 16.66 days (95% CI 14.47 to 18.73). The number of days required for the SARS-CoV-2 daily cases to double went from an average of 47.50 days (95% CI 37.18 to 57.61) before the changepoint to an average of 7.72 days (CI 95% 7.00 to 8.48) after it. The authors believe that looking at the growth rate in this way provides some evidence in favor of a link between school re-opening and the resurgence of the virus in Italy; however, further research is needed to identify the extent to which the re-opening of schools in Italy may have contributed to this resurgence..	The authors studied the growth rate of the number of SARS-CoV-2 infections in all Italian regions before and after school re-opening (September - October 2020), to investigate if there was an association. Looking at the growth rate in this way provides some evidence in favor of a link between school re-opening and the resurgence of the virus in Italy.	Cassini L, Rocetti M. Reopening Italy's Schools in September 2020: A Bayesian Estimation of the Change in the Growth Rate of New SARS-CoV-2 Cases. medRxiv. doi.org/10.1101/2021.04.06.21254993
COVID-19; pediatric; thrombotic thrombocytopenic purpura; Brazil	8-Apr-21	<a href="#">Thrombotic thrombocytopenic purpura associated with COVID-19 in a pediatric patient: case report</a>	Hematology, Transfusion and Cell Therapy	Case Report	The authors reported a rare association of acquired thrombotic thrombocytopenic purpura (TTP) and recent SARS-CoV-2 infection in a pediatric patient in Brazil. The 14-year-old female with a medical history of depression presented with headache and altered level of consciousness in August 2020. The patient had past symptoms of fever, cough, dyspnea, fatigue, and malaise for approximately 11 days, that resolved spontaneously about 20 days before hospitalization, and during the same period her parents had similar symptoms, but received no medical care. The initial laboratory screening showed anemia, with the presence of schistocytes in a peripheral blood smear, thrombocytopenia, and altered hemolysis markers. Due to recent respiratory symptoms, a chest CT was performed, which showed peripheral and bilateral	The authors reported a rare association of acquired thrombotic thrombocytopenic purpura (TTP) and recent SARS-CoV-2 infection in a pediatric patient in Brazil. The patient was treated with plasma exchange therapy and systemic corticosteroid methylprednisolone, with recovery of the acute condition. This report suggests that SARS-CoV-2 infection is	Hidalgo Filho CMT, Dalessandro Adamo DSM, Lopes CM, et al. Thrombotic thrombocytopenic purpura associated with COVID-19 in a pediatric patient: case report. Hematol Transfus Cell Ther. 2021. doi:10.1016/j.htct.2021.02.003

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					ground-glass opacities suggestive of viral pneumonia. The patient tested negative for SARS-CoV-2 RT-PCR, but serum IgG was positive. The diagnosis of acquired TTP was confirmed by low activity of the ADAMTS13 gene, with a positive test for anti-ADAMTS13 inhibitors. The patient was treated with plasma exchange therapy, along with systemic corticosteroid methylprednisolone. Her complete blood count values improved, and she was discharged on the 38th day of hospitalization. This report suggests that SARS-CoV-2 infection is one possible cause of acquired TTP.	one possible cause of acquired TTP.	
COVID-19; Hodgkin's lymphoma; ovarian tissue; peritoneal cavity; Italy	8-Apr-21	<a href="#">No evidence for SARS-CoV-2 presence in ovarian tissue and peritoneal cavity from a COVID-19 positive woman undergoing urgent fertility preservation procedure</a>	Minerva Endocrinology	Case Report	The authors investigated the presence of SARS-CoV-2 RNA in the peritoneal cavity and ovarian tissue of an asymptomatic SARS-CoV-2-infected woman with Hodgkin's lymphoma in Italy [date not specified]. The 26-year-old woman was undergoing ovarian tissue cryo-preservation. A pharyngo-nasal swab for SARS-CoV-2 RNA was positive. Chest X-ray was normal. During surgery, the skin was prepared with alcohol solution to reduce potential viral contamination. No free peritoneal fluid was observed before the ovarian biopsy. A random swab was performed on the visceral peritoneum of the pouch of Douglas, and peritoneal washing was done before and after biopsy. 2 samples from medullary and cortical regions of the retrieved ovarian tissue were tested for SARS-CoV-2 RNA, along with the peritoneal swabs and washings. All samples tested negative. The woman was discharged on post-operative day 2 with home isolation until recovery for chemotherapy in a dedicated setting. During phone interview 30 days after surgery, she did not complain of any COVID-19-related symptoms. This is the first known report showing SARS-CoV-2 RNA negativity in ovarian tissue (cortex and medulla) of an asymptomatic woman with a positive nasopharyngeal swab.	The authors investigated the presence of SARS-CoV-2 RNA in the peritoneal cavity and ovarian tissue of an asymptomatic SARS-CoV-2-infected woman with Hodgkin's lymphoma in Italy. All samples tested negative, with the exception of nasopharyngeal swab. This is the first known report showing SARS-CoV-2 RNA negativity in ovarian tissue (cortex and medulla) of an asymptomatic woman with a positive nasopharyngeal swab.	Seracchioli R, Raimondo D, Salucci P, et al. No evidence for SARS-CoV-2 presence in ovarian tissue and peritoneal cavity from a COVID-19 positive woman undergoing urgent fertility preservation procedure. Minerva Endocrinol (Torino). 2021. doi:10.23736/S2724-6507.21.03396-4.
Pregnancy, disease severity, mortality, ICU, ARDS	8-Apr-21	<a href="#">Characteristics and outcomes of COVID-19 pneumonia in pregnancy compared with infected nonpregnant women</a>  <a href="#">[Free Access to Abstract Only]</a>	International Journal of Gynaecology and Obstetrics	Original Research	This multicenter retrospective cohort study compared clinical features and outcomes between pregnant and nonpregnant women with SARS-CoV-2 between March-October 2020 in Tehran, Iran. 110 pregnant and 234 nonpregnant SARS-CoV-2-positive women (by RT-PCR) were included. Mean age of pregnant and nonpregnant women was similar (32.02 ± 6.1 years vs 32.88 ± 6.3; p = 0.241, range not provided). Prevalence of comorbidities was higher in pregnant women (51.8% vs 22.2%; p < 0.001). Frequency of severe disease was higher in nonpregnant women than pregnant women (29% vs 11.8%; p < 0.001). Symptoms including cough, dyspnea, chill, fatigue, and headache were more frequent in nonpregnant women (p < 0.05). Pregnant women had higher oxygen saturation levels and lower lymphocyte counts (p = 0.001). 6 (5.5%) pregnant and 12 (5.1%) nonpregnant women died (P = 0.80). No significant differences between the groups were found for ICU admission and end organ failure. Significantly more nonpregnant women developed acute respiratory distress	In this article, the authors compared clinical features and outcomes between pregnant and nonpregnant women with SARS-CoV-2 in Iran. While presence of comorbidities was higher in pregnant women, frequency of severe disease was higher in nonpregnant women. There was no difference in mortality, ICU admission, or end organ failure. The authors conclude that pregnant women with SARS-CoV-2 were not at higher risk of adverse outcomes	Vizheh M, Muhidin S, Aghajani F, et al. Characteristics and outcomes of COVID-19 pneumonia in pregnancy compared with infected nonpregnant women. Int J Gynaecol Obstet. 2021; doi:10.1002/ijgo.13697

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					syndrome (ARDS, 9.4% vs 0%; p = 0.001). Univariate regression indicated no association between pregnancy and death, ICU admission, or ARDS. Therefore, the authors conclude that pregnant women with SARS-CoV-2 were not at higher risk of adverse outcomes compared with nonpregnant women in Iran.	compared with nonpregnant women in Iran.	
COVID-19; family relationships; mental health	8-Apr-21	<a href="#">Impact of the COVID-19 pandemic on parent, child, and family functioning</a>	Family Process	Article	The authors compared US-based individual and family functioning changes from 2017-2020 pre-pandemic to April and May of 2020 during the COVID-19 pandemic. The cohort consisted of 399 dyads of mothers and fathers from whom data was collected 4 times until 4-years postpartum, ending with 384 parents from 208 families participating. This same group was then offered an online questionnaire regarding family adjustments made during the pandemic. 122 mothers (average age of 39.5 years, SD=4.4) and 84 (average age of 41.2 years, SD=4.7) fathers from 129 families responded (average 2.3 children/family; range 1-5 children; the average age of oldest child 9.9 years, SD=1.0). Depression, anxiety, co-parenting relationship quality, externalizing and internalizing behavior problems, parenting quality, and household income and education levels were surveyed. 28 (13.6%) parents scored in the range of clinical depression before the pandemic and 70 (34%) during. The effect sizes indicted large changes for parental depression (d=0.82), child externalizing (d=1.59) and child internalizing (d=1.31). Parents were 2.4 times (95% CI: 1.70-3.40) more likely to report high levels of depression during the pandemic than pre-pandemic levels, 2.5 times (95% CI: 1.61-4.02), more likely to report clinical levels of externalizing problems, and 4.0 times (95% CI: 2.14-7.49) more likely for internalizing problems. Depression increased for parents with more years of education vs. fewer years, for lower-income vs. higher-income, and lower vs. higher levels of parenting conflict. The authors stress the need to consider that these negative effects on family functioning may persist after the pandemic.	The authors examined US-based individual and family functioning changes from 2017-2020 pre-pandemic to April and May of 2020 during the COVID-19 pandemic. 28 (13.6%) parents scored in the range of clinical depression before the pandemic and 70 (34%) during.	Feinberg ME, A Mogle J, Lee JK, et al. Impact of the COVID-19 Pandemic on Parent, Child, and Family Functioning [published online ahead of print, 2021 Apr 8]. <i>Fam Process</i> . 2021;10.1111/famp.12649. doi:10.1111/famp.12649
Consent, coercion, pregnancy, maternity services, trauma	8-Apr-21	<a href="#">Vaginal Examinations During Childbirth: Consent, Coercion and COVID-19</a>	Feminist Legal Studies	Editorial	In this article, the author describes how policies implemented during the COVID-19 pandemic in the United Kingdom resulted in unintentional coercion for consent to vaginal examinations. Some hospitals implemented policies which dictated that only upon the confirmation of established labor would a birthing person be admitted to the labor ward. This policy sat alongside the position adopted by most National Health Service trusts that only once a person was admitted to the labor ward would their birth partner be allowed to join them. This resulted in some birthing people believing that if they wanted admission to the labor ward, which was necessary to enable their birthing partner to join them, they had to consent to a vaginal examination. The author discusses the	In this article, the author addresses how some policies introduced by some National Health Service (NHS) trusts during the COVID-19 pandemic in the United Kingdom may have coerced birthing people into consenting to vaginal examinations (for example, requiring confirmation of labor prior to admission to a labor ward). Unconsented/coerced	Nelson A. Vaginal Examinations During Childbirth: Consent, Coercion and COVID-19. <i>Fem Leg Stud</i> . 2021;1-13. doi:10.1007/s10691-021-09453-7

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					issues of insufficient consent in relation to vaginal examinations that were already present pre-pandemic, and how the pandemic exacerbated the issue. Unconsented/coerced vaginal examinations can lead to feelings of loss of control or lack of dignity, which are strongly associated with post-birth trauma and post-traumatic stress disorder. The author concludes by pointing out the barriers to legal redress for coerced consent and the need for further investment in maternity services.	vaginal examinations can lead to feelings of loss of control or lack of dignity, which are strongly associated with post-birth trauma and post-traumatic stress disorder. The author concludes by pointing out the barriers to legal redress for coerced consent and the need for further investment in maternity services.	
Pandemic; anxiety symptoms; depressive symptoms; youth; quarantine	8-Apr-21	<a href="#">Emotional symptoms and their related factors in adolescents during the acute phase of COVID-19 outbreak in South Italy</a>	Italian Journal of Pediatrics	Research	The authors surveyed Italian adolescents on emotional symptoms during the COVID-19 quarantine from April 25- May 13, 2020, for socio-demographic and psychological factors. 247 males (age range 14-19 years; median age 15.8 years, SD 1.3) and 79 females (age range 14-19 years; median age 16.0 years, SD 1.4) completed the survey. Environmental context (EC) scores characterized available living space, lifestyle changes (CL) scores characterized changes in quality and quantity of feeding and sleeping habits, and worries about infection (WI) summarizes participants' concerns for themselves or their family members' exposure to COVID-19. Anxiety was measured by the Italian version of the State-Trait Anxiety Inventory (STAI), depression symptoms in the past 2 weeks were measured by the mood and feelings questionnaire-short form (MFQ-SF), and general psychopathology in the previous 6 months was measured by the strength and difficulties questionnaire (SDQ). Gender differences in anxiety, depression, and general psychopathology were seen with 70.9% of females above the cut-off for anxiety ( $p < 0.001$ ) vs 40.1% of males. 29.1% of females and 9.3% of males were above the threshold for depression ( $p < 0.001$ ), and 46.8% of females were above the cut-off for psychopathology compared with 20.2% of males ( $p < 0.001$ ). SDQ scores and WI were independent predictors of STAI scores ( $p < 0.001$ ). Gender, SDQ, EC, and CL were independent predictors of depression ( $p < 0.001$ ). The EC was a moderator of depression; the better the living context, the lower depression symptoms were. The relationship between SDQ and MFQ scores was strongest for those who reported a lot of lifestyle changes. The authors suggest that the study identifies areas to prioritize assistance to adolescents during and after the COVID-19 pandemic.	The authors surveyed Italian adolescents on emotional symptoms during the COVID-19 quarantine from April 25- May 13, 2020, for socio-demographic and psychological factors. Gender differences in anxiety, depression, and general psychopathology were seen with more females meeting cut-off scores in all 3 areas. Environmental context was a moderator of depression; the better the living context, the lower the depression symptoms were.	Pisano S, Catone G, Gritti A, et al. Emotional symptoms and their related factors in adolescents during the acute phase of Covid-19 outbreak in South Italy. <i>Ital J Pediatr.</i> 2021;47(1):86. Published 2021 Apr 8. doi:10.1186/s13052-021-01036-1

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Anxiety, Coronavirus, COVID-19, SARS-CoV-2, Depression, Pandemics, Pregnancy	8-Apr-21	<a href="#">The Covid 19 outbreak: Maternal Mental Health and Associated Factors</a>	Midwifery	Original Research	The authors of this cross-sectional study based in Turkey aimed to evaluate mental health in pregnant women during the early and peak stages of the COVID-19 pandemic. An online survey was administered between May 6 and December 6, 2020. Pregnant women 18-45 years old and with no history of mental health disorders were included in the study (mean age 30.4 + 4.3 years; representing all 3 trimesters; n=729). Mental disorders were assessed using the "Depression Anxiety Stress Scale" (DASS, a Likert-type scale of 4 with 3 sub-dimensions of 7 questions each, used for the detection of depression, anxiety, and stress levels), and the "Multidimensional Scale of Perceived Social Support" (MSPSS, a scale that subjectively evaluates the adequacy of social support from 3 different sources - family, friends, and significant others). The results showed that anxiety, depression, and stress of moderate or high severity was reported in 62.2%, 44.6%, and 32.2% of the women, respectively. Pregnant women who lost their jobs during the pandemic had an increased risk of anxiety (OR 3.401, 95% CI 1.412-8.194, p=0.006), increased risk of depression (OR 5.906, 95% CI 2.821-12.362, p=0.000), and increased risk of stress (OR 4.788, 95% CI 2.507-9.147, p=0.000). An increase in perception of social support had protective effects against all 3 mental disorders. In pregnant women with at least one obstetric risk factor, the risk of antenatal anxiety was 2 times higher than that in women with no risk factors. In conclusion, the incidence of mental disorders in pregnant women during the pandemic was high, and the authors recommend that pregnant women have easy access to psychosocial support.	The authors of this cross-sectional study based in Turkey aimed to evaluate mental health in pregnant women during the early and peak stages of the COVID-19 pandemic. The authors concluded that the incidence of mental disorders in pregnant women during the pandemic was high, and they recommend that pregnant women have easy access to psychosocial support.	Koyucu RG, Karaca PP. The covid 19 outbreak: Maternal mental health and associated factors. Midwifery. 2021:103013. <a href="https://www.sciencedirect.com/science/article/pii/S0266613821000929">https://www.sciencedirect.com/science/article/pii/S0266613821000929</a> . doi: <a href="https://doi.org/10.1016/j.midw.2021.103013">https://doi.org/10.1016/j.midw.2021.103013</a> .
COVID-19 pandemic; Depression; Perinatal; Pregnancy-specific stress	8-Apr-21	<a href="#">The COVID-19 outbreak increases maternal stress during pregnancy, but not the risk for postpartum depression</a>	Archives of Women's Mental Health	Original Research	The authors conducted a prospective cohort study of 669 women in the Netherlands to compare perinatal depressive/stress symptoms during and before the COVID-19 pandemic. From 7 January 2019 to 1 March 2020 (before the pandemic), 401 women (mean age 30.88+/- 3.67) completed questionnaires during pregnancy (trimester 1: n=393; trimester 2: n=350; trimester 3: n=350), of whom 250 also completed post-partum assessments. During the pandemic from 1 March to 14 May 2020, 268 women (mean age 30.75+/-3.64) filled out at least one questionnaire during pregnancy (trimester 1: n=265; trimester 2: n=203, trimester 3=n=110), and 59 completed postpartum assessments. The demographic characteristics between the pandemic and pre-pandemic groups were similar. The authors used the 10-item Edinburgh Depression Scale (E(P)DS) to measure depressive symptoms during pregnancy and postpartum and the 10-item adapted version of the Tilburg Pregnancy Distress Scale (TPDS-NA) to assess pregnancy-specific stress. Results of mixed model analyses showed that for the E(P)DS model, the pandemic was not a significant predictor of depressive symptoms during pregnancy ( $\beta = -0.03$ , SE= -0.32, t= -0.09, p=0.925). The TPDS-NA model	The prospective cohort study from 7 January 2019 to 14 May 2020 in the Netherlands compared perinatal symptoms of perinatal depression and stress during and before the COVID-19 pandemic. The study revealed no increase in depressive symptoms during pregnancy nor an increase in the incidence of high levels of postpartum depressive symptoms during the pandemic. However, stress was significantly higher in pregnancy during the COVID-19 outbreak.	Boekhorst MGBM, Muskens L, Hulsbosch LP, et al. The COVID-19 outbreak increases maternal stress during pregnancy, but not the risk for postpartum depression. Arch Womens Ment Health. 2021 Apr 8. doi: 10.1007/s00737-021-01104-9. PMID: 33830373.

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					showed that stress was significantly higher in pregnancy during the COVID-19 outbreak ( $\beta = -0.69$ , $SE = 0.32$ , $t = -2.13$ , $p = 0.034$ ). The effect of time on stress during pregnancy was significant in both pre-pandemic and pandemic groups, showing a decrease over time ( $p = 0.003$ ). Clinicians need to be particularly aware of pregnant women with increased levels of stress during the pandemic and provide adequate mental health care and support for mothers in need.		
COVID-19; neonate, transmission, severity, in utero	8-Apr-21	<a href="#">Neonatal SARS-CoV-2 infection</a>	Journal of Paediatrics and Child Health	Article	The author discussed the paucity of data on whether babies contract SARS-CoV-2 infection in utero and the severity of infection if acquired in the neonatal period. Anecdotal reports of severe neonatal disease in association with SARS-CoV-2 infection are confounded by the possibility of alternate causes of the disease. The author also discussed the findings from a prospective UK population-based cohort study that used active national surveillance via the British Pediatric Surveillance Unit to identify 66 hospitalized infants <28 days old [mean age not specified] with confirmed SARS-CoV-2 infection between March 1- April 30, 2020 (incidence 5.6 [95% CI 4.3-7.1] per 10,000 live births). 24% of the neonates were delivered pre-term, while 42% had severe neonatal SARS-CoV-2 infection (incidence 2.4 [95% CI 1.6-3.4] per 10,000 live births). 17 children born to mothers with perinatal SARS-CoV-2 infection required NICU admission. 2 neonates had possible vertical transmission (SARS-CoV-2-positive sample within 12 h of birth where the mother was also positive). The incidence was higher in Asian and Black ethnic groups [data not specified]. 12% had suspected nosocomially acquired infection. There was one unrelated death but no deaths due to SARS-CoV-2 infection. These findings support international guidelines not to separate infected mothers from neonates.	The author discussed the paucity of data on whether babies contract SARS-CoV-2 infection in utero and the severity of infection if acquired in the neonatal period. Findings from a UK population-based cohort study showed that 2 neonates had possible vertical transmission; however, there were no deaths due to SARS-CoV-2 infection. These findings support international guidelines not to separate infected mothers from neonates.	Mellis C. Neonatal SARS-CoV-2 infection. J Paediatr Child Health. 2021. doi:10.1111/jpc.15482.
COVID-19; pediatric; long COVID; telemedicine; Spain	8-Apr-21	<a href="#">Spanish telemedicine data on 8 children support concept of "long covid" in children</a>	Acta Paediatrica	Letter	The author responded to the letter published by Lopez et al. [doi:10.1111/apa.15849] that commented on the author's recent paper about 5 children with suggested long COVID [doi:10.1111/apa.15673], but also drew attention to their Spanish-language paper on Telemedicine follow-ups for COVID-19 [doi:10.1016/j.anpedi.2020.10.017]. Of note, their letter confirmed that long COVID often occurs in pre-adolescent and adolescent children. Few of the 8 children outlined in their research letter had comorbidities ( $n = 1$ ). None had been admitted to the hospital at COVID-19 onset, emphasizing that long-term symptoms are not linked to the initial disease's severity. The author acknowledged the importance of their findings that add to the growing literature on "long COVID" in children.	The author responded to the letter published by Lopez et al. [doi:10.1111/apa.15849] that commented on the author's recent paper about 5 children with suggested long COVID [doi:10.1111/apa.15673]. Their letter confirmed that long COVID often occurs in pre-adolescent and adolescent children, and long-term symptoms are not linked to the severity of the initial disease.	Ludvigsson JF. Spanish telemedicine data on 8 children support concept of "long covid" in children. Acta Paediatr. 2021. doi:10.1111/apa.15869.
COVID-19; children; risk factors; Italy	8-Apr-21	<a href="#">Characteristics and risk factors for SARS-CoV-2 in</a>	Eurosurveillance	Original Research	The authors described the characteristics and risk factors for COVID-19 diagnosis in children aged 0-18 years tested in 20 pediatric centers across Italy between February 23 - May 24, 2020.	The authors described characteristics and risk factors for COVID-19 diagnosis in	Lazzerini M, Sforzi I, Trapani S, et al. Characteristics and risk factors for SARS-CoV-2 in

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
		<a href="#">children tested in the early phase of the pandemic: a cross-sectional study, Italy, 23 February to 24 May 2020</a>			Among 2,494 children tested [mean age not specified], 86.1% had symptoms. The clinical presentation of confirmed COVID-19 cases included fever (82.4%), respiratory (60.4%), gastrointestinal (18.2%), neurological (18.9%), cutaneous (3.8%) and other nonspecific influenza-like presentations (17.8%). Factors significantly associated with SARS-CoV-2 positivity were: exposure history (AOR=39.83; 95% CI 17.52-90.55; p<0.0001), cardiac disease (AOR=3.10; 95% CI 1.19-5.02; p<0.0001), fever (AOR=3.05; 95% CI 1.67-5.58; p=0.0003) and anosmia/ageusia (AOR=4.08; 95% CI 1.69-9.84; p=0.002). Among 190 (7.6%) children positive for SARS-CoV-2, only 4 (2.1%) required respiratory support, and 2 (1.1%) required ICU admission. All patients recovered. This study confirmed that COVID-19 is a mild disease in the general pediatric population in Italy. Recommendations for SARS-CoV-2 testing in children should consider the evidence of broader clinical features. Exposure history, fever, and anosmia/ageusia are strong risk factors in children for positive SARS-CoV-2 test results, while other symptoms did not help discriminate positive from negative individuals. Further studies are needed to understand the risk, clinical spectrum, and outcomes of COVID-19 in children with pre-existing conditions.	children aged 0-18 years tested in 20 pediatric centers across Italy between 23 February-24 May 2020. Exposure history, fever and anosmia/ageusia are strong risk factors in children for positive SARS-CoV-2 test results, while other symptoms did not help discriminate positive from negative individuals. Further studies are needed to understand the risk, clinical spectrum, and outcomes of COVID-19 in children with pre-existing conditions.	children tested in the early phase of the pandemic: a cross-sectional study, Italy, 23 February to 24 May 2020. Euro Surveill. 2021;26(14). doi:10.2807/1560-7917.ES.2021.26.14.2001248.
COVID-19; children; MIS-C; pediatric surgery	8-Apr-21	<a href="#">Multisystem inflammatory syndrome in children. An emerging clinical challenge for pediatric surgeons in the COVID 19 era</a>	Journal of Pediatric Surgery Case Reports	Case Report	The authors report the case of a 6-year-old male in Italy who presented with acute abdomen and was diagnosed with MIS-C [date not specified]. The patient was admitted with fever and intermittent diarrhea and tested positive for SARS-CoV-2 IgG antibodies. He was initially assessed by a surgical team due to his acute abdomen and suspicion for appendicitis. However, ultrasonography evaluation of the abdomen highlighted free pelvic fluid and a non-visible appendix. He was subsequently started on antibiotics but clinically worsened. A CT scan was performed, showing gas distension of the small bowel, free pelvic fluid, and incidental findings of pleural and pericardial effusions. Following the diagnosis of MIS-C with myocarditis, intravenous methylprednisolone (2 mg/Kg/day) and intravenous immunoglobulins (2 gr/Kg single infusion) were promptly started, leading to clinical improvement. In addition, to better portray this new entity, the authors performed a systematic review of MIS-C gastrointestinal features, particularly on those mimicking surgical emergencies. According to the literature search, patients with MIS-C have a high rate of severe abdominal symptoms resembling surgical emergencies (appendicitis, obstruction, etc.), and a number of those patients have been surgically explored with variable findings. In children presenting with acute abdomen, MIS-C should be promptly ruled out to avoid unnecessary surgeries that could worsen the already frail outcome of this syndrome.	The authors report the case of a 6-year-old male in Italy who presented with acute abdomen and tested positive for SARS-CoV-2 IgG antibodies. He was subsequently diagnosed with MIS-C with myocarditis and clinically improved after treatment with IV methylprednisolone and immunoglobulins. In children presenting with acute abdomen, MIS-C should be promptly ruled out to avoid unnecessary surgeries that could worsen the already frail outcome of this syndrome.	Valitutti F, Verde A, Pepe A, et al. Multisystem inflammatory syndrome in children. An emerging clinical challenge for pediatric surgeons in the COVID 19 era. J Pediatric Surg Case Rep. 2021;101838. doi:10.1016/j.jpesc.2021.101838.

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COVID-19; premature births; lockdown	8-Apr-21	<a href="#">Reduced rates of premature births in Denmark during COVID-19 lockdown</a>	Journal of Paediatrics and Child Health	Brief Report	The authors conducted a nationwide register-based prevalence proportion study on all 31,180 live singleton infants born in Denmark from March 12 - April 14, 2020, to assess the effect of the COVID-19 lockdowns on premature birth rates, comparing them to the birth rates from 2015-2019. They found a significant difference in the gestational age distribution in 2020 compared to the previous 5 years ( $p=0.0004$ ). There was a statistically significantly lower rate of premature children (born before 28 + 0 weeks gestation) during the lockdown period when compared to the corresponding mean premature birth rates in the previous years (OR: 0.09; 95% CI: 0.01-0.40, $P<0.001$ ). There was no difference found for other gestational age categories when the 2020 lockdown period and other years were compared. While the reason for this highly significant decrease is unknown, the authors suggest that it could be related to mothers being constrained to relax more during the lockdown.	The authors conducted a nationwide register-based prevalence proportion study in Denmark to assess the effect of the COVID-19 lockdowns on premature birth rates, comparing them to the birth rates from 2015-2019. There was a statistically significantly lower rate of premature children (born before 28 + 0 weeks gestation) during the lockdown period when compared to the corresponding mean premature birth rates in the previous years. The authors suggest that the results could be related to mothers being constrained to relax more during the lockdown.	Reduced rates of premature births in Denmark during COVID-19 lockdown [published online, 2021 Apr 8]. J Paediatr Child Health. 2021;10.1111/jpc.15489. doi:10.1111/jpc.15489
COVID-19; SARS-CoV-2; pregnancy; pregnant women; neuraxial labor analgesia; cesarean delivery	8-Apr-21	<a href="#">The Society for Obstetric Anesthesia and Perinatology (SOAP) COVID-19 Registry: An analysis of outcomes among pregnant women delivering during the initial SARS-CoV-2 outbreak in the United States</a>  <a href="#">[Free Access to Abstract Only]</a>	Anesthesia and Analgesia	Original Article	The Society for Obstetric Anesthesia and Perinatology COVID Registry was created to compare peripartum outcomes and anesthetic utilization in women with and without SARS-CoV-2 infection delivering at institutions with widespread testing. Deliveries from 14 US medical centers, March 19-May 31, 2020, were included. 1454 peripartum women were included: 490 with SARS-CoV-2 infection (35.9% symptomatic). SARS-CoV-2 patients were slightly younger, more likely non-nulliparous, non-white, and Hispanic than controls. They were also more likely to have diabetes, obesity, or cardiac disease and less likely to have autoimmune disease [significance not reported for demographic comparisons]. After adjustment for confounders, individuals with SARS-CoV-2 infection exhibited an increased risk for delivery <37 weeks' gestation compared to controls, 14.8% vs. 10.2% (aOR 1.47; 95% CI 1.03-2.09). In sensitivity analyses, compared to controls, symptomatic SARS-CoV-2 patients exhibited: increases in cesarean delivery (aOR 1.57; 95% CI 1.09-2.27); postpartum length of stay (aOR 1.89; 95% CI 1.18-2.60); and delivery <37 weeks' gestation (aOR 2.08; 95% CI 1.29-3.36). These adverse outcomes were not found in asymptomatic women versus controls. SARS-CoV-2 patients (asymptomatic and symptomatic) were less likely to receive neuraxial labor analgesia (aOR 0.52; 95% CI 0.35-0.75) and more likely to receive general anesthesia for cesarean delivery (aOR 3.69; 95% CI 1.40-9.74) due to maternal respiratory failure. Maternal and neonatal outcomes were less favorable in symptomatic pregnant women delivering with SARS-CoV-2	The Society for Obstetric Anesthesia and Perinatology (SOAP) COVID Registry was created to compare peripartum outcomes and anesthetic utilization in women with and without SARS-CoV-2 infection delivering at institutions with widespread testing. Maternal and neonatal outcomes were less favorable in symptomatic pregnant women delivering with SARS-CoV-2 infection compared to controls but not in asymptomatic women, and women with SARS-CoV-2 in this cohort had lower utilization of neuraxial labor analgesia.	Katz D, Bateman BT, Kjaer K, et al. The Society for Obstetric Anesthesia and Perinatology (SOAP) COVID-19 Registry: An analysis of outcomes among pregnant women delivering during the initial SARS-CoV-2 outbreak in the United States [published online 2021 Apr 8]. Anesth Analg. 2021. doi:10.1213/ANE.0000000000005592

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					infection compared to controls but not in asymptomatic women, and women with SARS-CoV-2 in this cohort had lower utilization of neuraxial labor analgesia.		
COVID-19; SARS-CoV-2; anti-inflammation; antibodies; breastfeeding; microbiome; respiratory infection; virome	7-Apr-21	<a href="#">Breastfeeding and COVID-19: From Nutrition to Immunity</a>	Frontiers in Immunology	Systematic Review	Although international guidelines recommend breastfeeding by SARS-CoV-2 infected mothers, many questions persist in clinical practice regarding its safety to infants. The authors carried out a systematic review of currently available information (published up to December 31, 2020) regarding the transmissibility of SARS-CoV-2 through breast milk or during breastfeeding, as well as the protection against infection that breast milk might provide. Of 383 screened articles, 21 case reports and 7 original articles were included; articles that did not provide information on maternal/infant testing or breastfeeding practices were excluded. Overall, among 231 births from SARS-CoV-2 positive mothers, 13 neonates (5.8%) tested positive within the first 48 hours; feeding methods varied and are summarized in Table 1. Among dyads in which the mother was positive for SARS-CoV-2 infection but the infant was negative, 2 of 38 (5.2%) tested milk samples had detectable SARS-CoV-2 RNA via PCR. Among dyads in which both mother and infant were SARS-CoV-2 positive, 3 of 11 (27%) milk samples were positive but the milk was not considered the cause of infection. The authors discuss the role of breast milk in the development of the neonatal immune system and protection against infection by other respiratory viruses, with a focus on the anti-inflammatory role of antibodies, microbes, and viruses provided to the infant in breast milk. The authors conclude that breastfeeding should be encouraged to promote bonding, neonatal immunity, and a healthy microbiome, but safety measures should be in place to prevent transmission via close contact. They also recommend pregnant mothers be prioritized for receipt of COVID-19 vaccines.	The authors carried out a systematic review of currently available information (published up to December 31, 2020) regarding the transmissibility of SARS-CoV-2 through breast milk or during breastfeeding, as well as the protection against infection that breast milk might provide. The authors conclude that breastfeeding should be encouraged to promote bonding, neonatal immunity, and a healthy microbiome, but safety measures should be in place to prevent transmission via close contact. They also recommend pregnant mothers be prioritized for receipt of COVID-19 vaccines.	Vassilopoulou E, Feketea G, Koumbi L, Mesiani C, Berghea EC, Konstantinou GN. Breastfeeding and COVID-19: From Nutrition to Immunity. Front Immunol. 2021;12:661806. Published 2021 Apr 7. doi:10.3389/fimmu.2021.661806
ECMO, ventilation, surfactant, hypoxemia, ARDS, therapeutics, children	7-Apr-21	<a href="#">Concomitant use of surfactant and extra-corporeal membrane oxygenation for COVID-19 in an 8-year-old boy</a>	Minerva Cardiology and Angiology	Letter	In this letter, the authors present a case of an 8-year-old boy hospitalized with COVID-19 associated acute respiratory distress syndrome (ARDS) in Turkey and discuss the role of surfactant in his presentation and recovery [dates not provided]. He presented with hypoxemia that persisted despite high pressures delivered through conventional pressure-controlled mechanical ventilation. On the 16th day, the patient was put on veno-venous extracorporeal membranous oxygenation (ECMO) with high frequency oscillation with lower settings to avoid volutrauma and barotrauma. Surfactant (30mg/kg) was administered intratracheally. The authors present chest X-rays taken before and after surfactant administration and highlight that the surfactant contributed to improvement from the ARDS. They propose that the lower mechanical ventilation with ECMO allows the surfactant instilled to remain intact and is promising as a therapeutic strategy for patients with COVID-19 related ARDS treated with veno-venous	In this letter, the authors present a case of an 8-year-old boy with COVID-19 associated ARDS in Turkey. He improved following the initiation of veno-venous ECMO and intratracheally administered surfactant. The authors conclude that surfactant deficiency substantially contributed to this patient's COVID-19 associated ARDS and use of surfactant is a promising therapeutic strategy for patients with COVID-19 related	Katlan B, Kesici S, Bayrakci B. Concomitant use of surfactant and extra-corporeal membrane oxygenation for COVID-19 in an 8-year-old boy. Minerva Cardiol Angiol. 2021; doi:10.23736/S2724-5683.21.05374-6

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					ECMO. They conclude that surfactant deficiency substantially contributed to this patient's COVID-19 associated ARDS.	ARDS treated with veno-venous ECMO.	
COVID-19 pandemic, lockdown, violence against women and children, WHO, Europe	7-Apr-21	<a href="#">Emerging responses implemented to prevent and respond to violence against women and children in WHO European member states during the COVID-19 pandemic: a scoping review of online media reports</a>	British Medical Journal (BMJ) Open	Original Research	This scoping review explores the strategies that governments and civil society organizations implemented to prevent and respond to the anticipated rise in violence against women and/or children (VAWC) during the COVID-19 pandemic in the WHO European member states. The authors analyzed media reports (n=187), publications (n=6), and other grey literature (n=158) published from January 1 – September 17, 2020. Outcome measures included measures implemented by governments, public services, and NGO and civil organizations to prevent or respond to VAWC during the early months of the COVID-19 pandemic. The study found that in 52/53 member states there was at least 1 measure undertaken to address VAWC during the pandemic. Government-led or government-sponsored measures were the most common, reported in 50/53 member states. NGO and other civil society-led measures were reported in 40/53 member states. The most common measure was the use of media and social media to raise awareness of VAWC and to provide VAWC services through online platforms, followed by measures taken to enhance helpline services for those exposed to violence. Of note, the authors found that measures identified to address VAWC were predominantly focused on VAW. The study did not identify any school-based measures, possibly due to widespread school closures, and there were very few parenting programs for the prevention and response to VAW. The authors advocate for strengthened resources for children as schools re-open to address the long-term impact that the pandemic may have on children who have spent lockdown at home with abusive family members.	This scoping review explores the strategies that governments and civil society organizations implemented to prevent and respond to the anticipated rise in violence against women and/or children (VAWC) during the COVID-19 pandemic in the WHO European member states. The authors found that measures identified to address VAWC were predominantly focused on VAW. The study did not identify any school-based measures, possibly due to widespread school closures, and there were very few parenting programs for the prevention and response to VAW.	Pearson I, Butler N, Yelgezekova Z, et al. Emerging responses implemented to prevent and respond to violence against women and children in WHO European member states during the COVID-19 pandemic: a scoping review of online media reports. <i>BMJ Open</i> . 2021;11(4):e045872. Published 2021 Apr 7. doi:10.1136/bmjopen-2020-045872
breastfeeding; mRNA; vaccination; antibodies; breast milk	7-Apr-21	<a href="#">Quantification of specific antibodies against SARS-CoV-2 in breast milk of lactating women vaccinated with an mRNA vaccine</a>	medRxiv	Preprint (not peer-reviewed)	This prospective study aimed to analyze the levels of specific SARS-CoV-2 antibodies in the breast milk of mRNA-vaccinated women across time and their correlation with serum antibody levels. This study sample included 18 lactating women aged over 18 years old who were vaccinated against SARS-CoV-2 with the Pfizer-BioNTech® COVID-19 vaccine (BNT162b2). Paired serum and breast milk samples were simultaneously taken from each participant at three timepoints after receiving the vaccine: 2 weeks after 1st dose, 2 weeks after 2nd dose, and 4 weeks after 2nd dose (Timepoints 1, 2, and 3, respectively). Levels of IgG antibodies against the spike protein (S1 subunit) were determined for each sample. The researchers collected and analyzed 52 serum and 52 breast milk samples from the participants. The median (interquartile range) IgG(S1) levels for serum–milk pairs at each timepoint were 410 (208-606) - 1.7 (0-2.9) AU/ml at Timepoint 1, 11505 (8933 - 21184) – 52.2 (34.1-113) at Timepoint 2 and 8311 (5578-17419) – 41.7 (24.8-75.3) at Timepoint 3. The Pearson's correlation coefficient between breast milk and serum IgG(S1)	This prospective study analyzed SARS-CoV-2 antibodies in the breast milk of mRNA-vaccinated women over time and their correlation with serum antibody levels in 18 women vaccinated with the Pfizer-BioNTech® COVID-19 vaccine. The SARS-CoV-2 antibody level in women was highest 2 weeks after the participants' 2nd dose, and IgG levels in breast milk were positively correlated with corresponding serum levels. These findings provide confidence in vaccinating	Esteve-Palau E, Gonzalez-Cuevas A, Guerrero ME, et al. Quantification of specific antibodies against SARS-CoV-2 in breast milk of lactating women vaccinated with an mRNA vaccine. <i>medRxiv</i> . 2021; doi:10.1101/2021.04.04.21254819

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					levels was 0.71. No major adverse reactions were observed in the participants. The authors concluded that breast milk from women vaccinated with mRNA-based Pfizer-BioNTech® vaccine contains specific anti-SARS-CoV-2 IgG(S1) antibodies, with levels increasing considerably after the second dose. Furthermore, IgG(S1) levels in breast milk are positively correlated with corresponding serum levels. These findings provide confidence in vaccinating lactating women against SARS-CoV-2.	lactating women against SARS-CoV-2.	
USA, COVID-19, SARS-CoV-2, testing, children, schools, socioeconomics, minority	7-Apr-21	<a href="#">Factors Associated with Participation in Elementary School-Based SARS-CoV-2 Testing — Salt Lake County, Utah, December 2020–January 2021</a>	Morbidity and Mortality Weekly Report (MMWR)	Early Release	This study examined participation in free, in-school, saliva testing for SARS-CoV-2 in relation to factors that could influence likelihood of utilizing testing. Crude prevalence ratios (PRs) were calculated using univariate log-binomial regression. 438 students at 20 elementary schools (Utah, USA) were analyzed. Compared with non-Hispanic White students, participation in the testing program was higher among Hispanic/Latino White students (PR = 1.21) and among members of a racial minority group (PR = 1.19). Participation was also higher among those living in ZIP codes with incidences higher than the median of all ZIP codes of students analyzed (PR = 1.12). No differences were found based on having a family member ever receive a positive SARS-CoV-2 test result, cumulative school incidence, ZIP code-level deprivation score (a composite measure of socio-economic disadvantage), or ZIP code-level mask compliance (estimated as the percentage of adult residents who reported always wearing a mask in public). The socio-demographic differences in participation rates suggest a higher level of concern about COVID-19 school safety among racial and ethnic minority parents, or less concern or better access to other testing resources among non-Hispanic White households. In-school SARS-CoV-2 testing could be a useful resource for those at higher risk for infection and with limited testing access.	This study examined participation in free, in-school, saliva testing for SARS-CoV-2 (USA) in relation to factors that could influence likelihood of utilizing testing. Program participation was higher in Hispanic and minority students compared to White students, and higher among students who lived in ZIP codes with increased incidence of COVID-19. The authors conclude that in-school SARS-CoV-2 testing could be a useful resource for those at higher risk for infection and with limited testing access.	Lewis NM, Hershov RB, Chu VT, et al. Factors Associated with Participation in Elementary School-Based SARS-CoV-2 Testing — Salt Lake County, Utah, December 2020–January 2021. MMWR Morbidity and Mortality Weekly Report. 2021;70(15). doi:10.15585/mmwr.mm7015e1
COVID-19; utilization; pediatrics; emergency department	7-Apr-21	<a href="#">Impact of COVID-19 on Pediatric Emergency Department Visits: A Retrospective Cohort Study</a>	medRxiv	Preprint (not peer-reviewed)	The authors examined changes to pediatric emergency department (PED) utilization in 2 large tertiary care pediatric hospitals from March 1–May 31, 2020, during the COVID-19 pandemic in Canada. These visits were compared to the March 1–May 31 period of years 2015–2019. The median number of visits per week for children (age < 18 years) in the 2 PEDs from 2015–2019 was 1,632 (IQR 1,548; 1,703) compared to 536 (IQR 446; 744) in 2020, representing a 53.5% (95% CI 52.1, 54.4; p<0.001) reduction. Triage categories with lower acuity had a larger reduction in visits (54.2% reduction) compared to higher acuity triage categories (42.0% reduction, p < 0.001). Of the patients seen during the pandemic, a larger portion were hospitalized (11.8%) compared to those seen during the pre-pandemic period (5.5%, p < 0.001). Disease categories for which statistically significant changes were observed in proportion of visits included "Fever unspecified, viral infection, upper respiratory tract infection, bronchiolitis" (25.1% pre-pandemic vs 20.5% pandemic period, p < 0.001),	This article examined changes in pediatric emergency department utilization for 2 large tertiary care pediatric hospitals in Canada during the COVID-19 pandemic. A reduction in the number of visits was observed during the COVID-19 pandemic when compared to previous years, and patients seen during the COVID-19 pandemic had higher triage category acuity compared to patients seen in previous years.	Fontaine P, Osmanlliu E, Gravel J, et al. Impact of COVID-19 on Pediatric Emergency Department Visits: A Retrospective Cohort Study. medRxiv. 2021. doi: https://doi.org/10.1101/2021.04.05.21254921

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					"Diseases of the respiratory system" (19.0% pre-pandemic vs. 10.5% pandemic period, $p < 0.001$ ), and "Diseases of the eye, adnexa, ear, and mastoid process" (7.2% pre-pandemic vs. 3.2% pandemic period, $p < 0.001$ ). The results demonstrate a decrease in PED utilization, with a shift in the proportion of patients seen with higher acuity. Less infectious disease transmission due to SARS-CoV-2 prevention measures, family concern over SARS-CoV-2 exposure in the emergency room, and increased use of telehealth are possible contributors to the observed changes.		
COVID-19; paediatrics (drugs and medicines); skin	7-Apr-21	<a href="#">Leucocytoclastic vasculitis secondary to COVID-19 infection in a young child</a>	British Medical Journal (BMJ) Case Reports	Case Report	The authors report a rare presentation of leukocytoclastic vasculitis following an asymptomatic SARS-CoV-2 infection in a young adolescent in the US [date not given]. A 13-year-old African American boy presented to the ED with skin rashes on both feet and ankles of 1-week duration. The rash started on his feet/ankles and then spread to his lower legs. The patient was diagnosed with an asymptomatic SARS-CoV-2 infection 4 weeks before the rash onset and denied any respiratory symptoms or fever. Skin examination revealed scattered, non-blanching, round, and dark red palpable petechiae and macular skin rashes. Urinalysis showed moderate blood and no proteinuria. The skin biopsy suggested small vessel neutrophilic vasculitis. Henoch-Schoenlein Purpura was ruled out due to the lack of immune IgA deposits in the biopsy. The patient was given oral prednisone for 2 weeks followed by gradual tapering over the next 4 weeks. The child gradually improved but still had some persistent lesions for almost 4 weeks. COVID-19 patients can develop vasculitis due to endothelial damage caused by viral invasion of endothelium or due to immune reaction. This patient's persistent lesions on oral prednisone suggest vascular damage secondary to the SARS-CoV-2 infection. There are existing case studies of skin manifestations of COVID-19; this report shows that that asymptomatic children with SARS-CoV-2 infection can develop leukocytoclastic vasculitis and need to be followed up for late cutaneous manifestations.	The authors report a rare presentation of leukocytoclastic vasculitis following asymptomatic SARS-CoV-2 infection in a 13-year-old African American boy. The patient's persistent lesions on oral prednisone suggest vascular damage secondary to SARS-CoV-2 infection, which is supported by case studies of COVID-19-related skin manifestations.	Kumar G, Pillai S, Norwick P, et al. Leucocytoclastic vasculitis secondary to COVID-19 infection in a young child. BMJ Case Rep. 2021 Apr 7;14(4):e242192. doi: 10.1136/bcr-2021-242192. PMID: 33827885.
COVID-19, kidney transplant, immunosuppression, pediatric, seroprevalence	7-Apr-21	<a href="#">Detection of SARS-CoV-2 antibodies in pediatric kidney transplant patients</a>	BioMed Central (BMC) Nephrology	Original Research	The authors conducted a single-center cross-sectional study to investigate the seroprevalence of SARS-CoV-2 in a pediatric cohort of kidney transplant (PKT) recipients (44 males; 28 females; mean age 9.83+/-3.87 years) between August 15 - October 12, 2020 in Saudi Arabia. The authors used two different FDA-approved commercially available serological assays: Diasorin Liaison SARS-CoV-2 S1/S2 IgG assay and Abbott architect SARS-CoV-2 IgG. Of the 72 PKT patients screened, 12.5% (9 of 72) were found to have positive SARS-CoV-2 IgG in at least one test. 88.9% (8 of 9) of the patients had positive results on both tests. All patients were asymptomatic or mildly asymptomatic. The median age of patients with detectable COVID-19 antibodies was 9 years (IQR 6-13 years). All but one patient had household contact with a confirmed COVID-19 case. Overall, the prevalence of COVID-19 based on two	A single-center cross-sectional study between August - December 2020 at a hospital in Saudi Arabia revealed a relatively high seroprevalence (11.1%) of SARS-CoV-2 among the pediatric kidney transplant population (PKT). All patients were asymptomatic or mildly symptomatic and exhibited a strong humoral immune response that persisted for a few months despite being on triple immunosuppressants.	Alshami A, Al Attas R, Azzam A, Mohammed A, Al-Quhaidan N. Detection of SARS-CoV-2 antibodies in pediatric kidney transplant patients. BMC Nephrol. 2021 Apr 7;22(1):123. doi: 10.1186/s12882-021-02325-x. PMID: 33827461.

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					positive serological tests for SARS-CoV-2 IgG was 11.1% (8 of 72). The patients demonstrated high antibody titers against spike proteins, which suggests the role of neutralizing antibodies in eliminating viral replication and providing protection from reinfection. These findings may indicate that PKT patients are capable of producing protective immunity post-infection. The patients also elicited a strong humoral immune response, which has positive implications for future vaccination when available for this age group. The authors suggest that immunosuppressants seem to not exert an additional risk for a more severe COVID-19 course in this population, and a reduction in immunosuppressants might not be necessary.	The authors suggest that immunosuppressants seem to not exert an additional risk for a more severe COVID-19 course in this population, and a reduction in immunosuppressants might not be necessary.	
COVID-19; childhood obesity	7-Apr-21	<a href="#">COVID Pandemic and Childhood Obesity: A Return to Normal is Too Low a Bar</a>	Childhood Obesity	Editorial	The authors discussed the impact of the COVID-19 pandemic on childhood obesity. Although population-level data have not been published, the authors noted increases in weight and BMI-percentile trajectories in the growth charts of their pediatric patients in the United States. This finding is supported by reports from parents who observed pandemic-related declines in their children's moderate-to-vigorous activity. A microsimulation model estimated that predicted reductions in energy expenditure caused by kindergarten closures might increase the prevalence of obesity in kindergarteners by >2%. The loss of family members to COVID-19 and disruption to everyday social interactions can lead to depression, anxiety, stress eating, and less activity. Stress increases hunger hormones and insulin resistance. Parents are facing limited choices on how to maintain healthy lifestyle patterns in addition to the COVID-related demands on work and childcare, and the impact on childhood obesity may be worldwide. Surveys from Italy, Spain, and China also have reported pandemic-related reductions in physical activity and increases in sedentary behavior. The pandemic has highlighted the need to actively change the baseline conditions that promote obesity on a societal level.	The authors discussed the impact of the COVID-19 pandemic on childhood obesity. Pandemic-related reductions in physical activity, increased sedentary behavior, and increases in weight and BMI-percentile trajectories of US-based pediatric patients have been observed. The pandemic has highlighted the need to actively change the baseline conditions that promote obesity on a societal level.	Barlow SE, Gupta OT, Messiah SE, et al. COVID Pandemic and Childhood Obesity: A Return to Normal is Too Low a Bar. Child Obes. 2021;17(3):151-152. doi:10.1089/chi.2021.0069.
COVID-19; children; liver; ALT, MIS-C, severe	7-Apr-21	<a href="#">Liver involvement in Children with SARS-COV-2 Infection: Two Distinct Clinical Phenotypes Caused by the Same Virus</a>	Liver International	Original Research	In this retrospective study, the authors compared characteristics in children with elevated alanine aminotransferase > 40 U/L (E-ALT) in two distinct manifestations of SARS-CoV-2 infection, MIS-C and COVID-19, in the United States between March 14 - June 30, 2020. 291 patients aged ≤21 years with positive SARS-CoV-2 PCR tests were included in the analysis, of which 36% had E-ALT. Of the patients with E-ALT, 31% had COVID-19 (median age=16 years, IQR 8-20 years; 71% male) and 51% had MIS-C (median age=9.5 years, IQR 6-13.5 years; 69% male). E-ALT in COVID-19 was associated with obesity (p<0.001), immunocompromised status (p=0.04), and chronic liver disease (p=0.01). E-ALT in COVID-19 was also associated with higher c-reactive protein (OR=1.08, p=0.01) after adjusting for common independent predictors. Children with E-ALT and MIS-C were more often male (p=0.001), Hispanic (p=0.04), or Black (p<0.001). In MIS-C, male gender (OR=5.3, p=0.02) and Black	In this retrospective study, the authors compared characteristics in children with elevated alanine aminotransferase > 40 U/L (E-ALT) in two distinct manifestations of SARS-CoV-2 infection, MIS-C and COVID-19, in the United States between March 14 - June 30, 2020. The findings indicate that E-ALT with SARS-CoV-2 infection presents as elevated transaminases without hepatic synthetic dysfunction. Children	Pere A, Cantor A, Rudolph B, et al. Liver involvement in Children with SARS-COV-2 Infection: Two Distinct Clinical Phenotypes Caused by the Same Virus. Liver Int. 2021. doi:10.1111/liv.14887.

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
					<p>race (OR=4.4, p=0.04) were associated with increased odds of E-ALT. Children with E-ALT in both COVID-19 and MIS-C cohorts had significantly longer hospitalization (p&lt;0.001 and p=0.001 respectively) and ICU stay (p=0.01 and p=0.04 respectively). Children with MIS-C had a 2.3-fold increased risk of E-ALT compared to COVID-19 (p=0.03). No association was found between E-ALT and mortality. These findings indicate that E-ALT with SARS-CoV-2 infection presents as elevated transaminases without hepatic synthetic dysfunction. Children with either COVID-19 or MIS-C who developed concomitant E-ALT were at risk of a more severe disease course, including longer hospitalization and ICU stay.</p>	<p>with either COVID-19 or MIS-C who developed concomitant E-ALT were at risk of a more severe disease course, including longer hospitalization and ICU stay.</p>	
COVID-19; childhood vaccination; BCG	7-Apr-21	<a href="#">Citizen science initiative points at childhood BCG vaccination as a risk factor for COVID-19</a>	Transboundary and Emerging Diseases	Rapid Communication	<p>The authors used a citizen science initiative during the COVID-19 pandemic to collect data worldwide via a survey between October 2-30, 2020 (n=1,233; mean age=40.4 ± 14.22 years, age range=3-84 years) in a structured way for analyzing factors and characteristics of SARS-CoV-2 infected individuals in relation to BCG vaccination. The survey respondents were from 48 countries and included 782 females. The results suggest that vaccination with BCG may increase the risk for COVID-19 at a certain age, particularly in individuals vaccinated during childhood. Childhood BCG vaccination increased the likelihood of being diagnosed with COVID-19 fivefold in COVID-19 low-incidence countries and threefold in high-incidence countries. Moreover, BCG vaccinated subjects were 3 times more likely to have a positive SARS-CoV-2 PCR or blood test (p&lt;0.0001) and were also 7 times more likely to have been hospitalized due to COVID-19 (p&lt;0.0001). However, BCG vaccination had no effect on symptoms development nor symptoms duration (p&gt;0.05). A reasonable explanation for this finding is the activation of certain innate immunity mechanisms associated with inflammatory reactions. These factors should be considered when analyzing the risks associated with the pandemic. The results of this study suggest that among the criteria for the prioritization of COVID-19 vaccination (WHO, 2020), BCG-vaccinated people, especially in childhood, should be considered as a priority for vaccination.</p>	<p>The authors used a citizen science initiative during the COVID-19 pandemic to collect data worldwide via a survey between October 2-30, 2020, for analyzing factors and characteristics of SARS-CoV-2 infected individuals in relation to BCG vaccination. Childhood BCG vaccination increased the likelihood of being diagnosed with COVID-19 5x in COVID-19 low-incidence countries and 3x in high-incidence countries, possibly due to activation of certain innate immunity mechanisms associated with inflammatory reactions. These results suggest that BCG-vaccinated people, especially in childhood, should be considered a priority for vaccination.</p>	<p>de la Fuente J, Armas O, Sánchez-Rodríguez L, et al. Citizen science initiative points at childhood BCG vaccination as a risk factor for COVID-19. Transbound Emerg Dis. 2021. doi:10.1111/tbed.14097.</p>
COVID-19; SARS-CoV-2; breastfeeding	7-Apr-21	<a href="#">No Evidence of Infectious SARS-CoV-2 in Human Milk: Analysis of a Cohort of 110 Lactating Women</a>	medRxiv	Preprint (not peer-reviewed)	<p>This cohort study in the United States examined the breast milk of women with a recently-confirmed SARS-CoV-2 infection. 65 women submitted self-collected breast milk samples for analysis between March-September 2020. 6 of these participants were hospitalized for COVID-19, 4 of whom were pregnant at the time of hospitalization. 7 women submitted one sample each with detectable SARS-CoV-2 RNA, but no RNA was detected from subsequent specimens (1-97 days after the initial sample) from these participants. The 7 samples that contained viral RNA were analyzed for subgenomic RNA (spliced RNAs produced during viral replication), but none was found. Therefore, the authors</p>	<p>This cohort study in the United States examined the breast milk of women with a recently-confirmed SARS-CoV-2 infection. Although some samples were found to have viral RNA, there was no evidence that the breast milk contained infectious SARS-CoV-2.</p>	<p>Krogstad P, Contreras D, Ng H, et al. No Evidence of Infectious SARS-CoV-2 in Human Milk: Analysis of a Cohort of 110 Lactating Women. medRxiv. 2021. doi: https://doi.org/10.1101/2021.04.05.21254897</p>

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					concluded there was no evidence that breast milk contained infectious SARS-CoV-2.		
COVID-19; neonate; ocular health	7-Apr-21	<a href="#">Ocular Assessments of a Series of Newborns Gestationally Exposed to Maternal COVID-19 Infection</a>	Journal of the American Medical Association (JAMA) Ophthalmology	Original Research	This study explored whether SARS-CoV-2 infection in pregnant women caused ocular abnormalities in neonates. Subjects were neonates (n=165; age range at examination: 1-18 days) born in São Paulo, Brazil between April-November 2020 to mothers diagnosed with COVID-19 during pregnancy. 6 neonates (3.63%) were found to have SARS-CoV-2 via PCR results. The authors note that one, tested at 18 days old, was most likely a horizontal transmission case; the other 5 neonates tested positive on their day of birth (possible vertical transmission). No ocular abnormalities were observed among infants that tested positive for SARS-CoV-2. For those that tested negative, researchers observed: 1 with retinal vascular tortuosity and venous engorgement, 7 neonates with retinal hemorrhages, and 2 with retinopathy of prematurity, 1 of which had the aggressive posterior form. In addition, 5.4% of neonates had respiratory distress syndrome. The researchers conclude that their results support existing literature that vertical transmission from mother to infant occurs at low rates. They also state that they did not find a moderate or high increase in risk of ocular abnormalities in neonates born to mothers with COVID-19. They recommend that future controlled studies with standardized diagnoses be conducted to rule out low increased risk.	This study explored whether SARS-CoV-2 infection in the pregnant women caused ocular abnormalities in neonates. A moderate or high increase in risk of ocular abnormalities was not found, but researchers recommend that future controlled studies with standardized diagnoses be conducted to rule out low increased risk.	Kiappe OP, Santos da Cruz NF, Rosa PAC et al. Ocular Assessments of a Series of Newborns Gestationally Exposed to Maternal COVID-19 Infection. JAMA Ophthalmol. 2021. doi:10.1001/jamaophthalmol.2021.1088
COVID-19; neonate; preterm birth; neonatal ICU; neonatal outcomes	7-Apr-21	<a href="#">Neonatal outcomes during the COVID-19 pandemic in New York City</a>	Pediatric Research	Correspondence	The authors assessed whether the COVID-19 lockdown measures or reopening were associated with changes in preterm birth or neonatal ICU (NICU) admission rates at the Mount Sinai Hospital, New York City, USA, between January 1, 2012-November 25, 2020. The final cohort consisted of 43,963 singletons, with 3,348 live births during the lockdown (March 16, 2020- date of lockdown implementation; June 8, 2020- date of reopening). They compared the 1-, 2-, and 3-month periods before and after the date associated with lockdown measure changes compared to the same period in 2012-2019. In the 3-months before and after the lockdown, there was an increase in preterm birth rates (<37 weeks) from 6.2% to 8.0% (OR: 1.2; 95% CI: 0.92-1.74). In 2012-2019, there was an increase in preterm births from 6.9 to 7.3% (OR = 1.08, 95% CI = 0.96-1.20), which was comparable to the change in 2020 as compared by a difference-in-differences (DiD) logistic regression (p=0.35). The change in NICU admissions was not statistically significantly different in 2020 compared to 2012-19 [6.9 to 9.1% in 2020; 6.1-6.4% in 2012-19; PDiD = 0.09]. Using the largest time window before and after reopening on June 8, 2020, the authors observed a decrease in preterm births from 8.3 to 4.6% in 2020 (OR = 0.53, 95% CI = 0.37-0.74), which was significantly different from 2012 to 2019 (PDiD = 0.0028), when preterm birth rates only decreased from 7.4 to 6.8% (OR = 0.92, 95% CI = 0.83-1.03). The authors concluded that while they	The authors assessed whether the COVID-19 lockdown measures or reopening were associated with changes in preterm birth or neonatal ICU (NICU) admission rates in New York City, USA, compared to 2012-2019. They observed a statistically significant reduction in preterm births and NICU admission rates after the reopening period in 2020 compared to the previous years. The authors concluded that the mechanisms underlying this change are likely multifaceted and warrant further investigation.	Richter F, Strasser AS, Suarez-Farinas M, et al. Neonatal outcomes during the COVID-19 pandemic in New York City [published online, 2021 Apr 7]. Pediatr Res. 2021;1-3. doi:10.1038/s41390-021-01513-7

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					observed a statistically significant reduction in preterm birth and NICU admission rates after the reopening, the mechanisms underlying this change are likely multifaceted and warrant further investigation.		
non-pharmaceutical interventions; distancing; face masks; respiratory viruses; COVID-19	7-Apr-21	<a href="#">Differentiating impacts of non-pharmaceutical interventions on non-coronavirus disease-2019 respiratory viral infections: Hospital-based retrospective observational study in Taiwan</a>	Influenza and Other Respiratory Viruses	Original Research	This retrospective observational cohort study in Taiwan aimed to understand the impacts of non-pharmaceutical interventions (NPIs) such as mask-wearing and physical distancing against non-COVID-19 respiratory viruses (RVs) before and during the COVID-19 pandemic. Researchers examined electronic records at a tertiary hospital in northern Taiwan from pre-COVID (January–December 2019) to the post-COVID period (January–May 2020). Adult and pediatric patients with respiratory syndromes were tested for both enveloped (e.g., influenza virus and seasonal coronavirus) and non-enveloped RVs (e.g., enterovirus and rhinovirus) using multiplex reverse transcription-polymerase chain reaction assays. A total of 9693 patients underwent 12,127 multiplex RT-PCR tests. In the pre-and post-COVID period, 757 (15.6%) and 292 (6%) of all patients were pediatric patients, with mean ages of 4 and 5 years in each respective period. The average positivity rate of non-COVID-19 respiratory viruses (NCRVs) was reduced by 11.2% (25.6% to 14.4%) after nationwide public health interventions. Despite the COVID-19 pandemic, the most commonly identified enveloped and non-enveloped viruses were influenza virus and enterovirus/rhinovirus, respectively. The observed reduction in NCRV incidence was predominantly contributed by enveloped NCRVs, including influenza viruses. The authors did not observe epidemiological impacts of NPIs on non-enveloped viruses but an increasing trend in enterovirus/rhinovirus test positivity rate among pediatric patients. This frontline investigation suggests that the current NPIs in Taiwan might not effectively control the transmission of non-enveloped respiratory viruses, despite their protective effects against influenza and seasonal coronavirus. Further measures such as hydrogen peroxide or chlorine-based disinfectants are suggested as additional preventative strategies, especially for pediatric patients.	This retrospective observational cohort study in Taiwan aimed to understand the impacts of non-pharmaceutical interventions (NPIs) such as mask-wearing and physical distancing against non-COVID-19 respiratory viruses (NCRVs) before and during the COVID-19 pandemic among adult and pediatric patients. The observed reduction in NCRV incidence was predominantly contributed by enveloped NCRVs, including influenza viruses, though there was an increasing trend in enterovirus/rhinovirus test positivity rate among pediatric patients. This frontline investigation suggests that the current NPIs in Taiwan might not effectively control the transmission of non-enveloped respiratory viruses, despite their protective effects against influenza and seasonal coronavirus.	Chen AP, Chu IY, Yeh ML, et al. Differentiating impacts of non-pharmaceutical interventions on non-coronavirus disease-2019 respiratory viral infections: Hospital-based retrospective observational study in Taiwan. <i>Influenza Other Respir Viruses</i> . 2021. doi:10.1111/irv.12858
COVID-19; neonate; telemedicine; United States	6-Apr-21	<a href="#">Telemedicine use in neonatal follow-up programs – What can we do and what we can't – Lessons learned from COVID-19</a>	Seminars in Perinatology	Article	The authors reported a novel experience of rapid implementation of telemedicine in a multi-disciplinary neonatal follow-up program in the United States during the COVID-19 pandemic. Between 30 March-16 June 2020, patient care was exclusively conducted via telemedicine (using MyChop mobile application), after which a blend of in-person and telemedicine care was used. Parents were provided with a guide for the telemedicine visit. During each telemedicine visit, the medical providers reviewed medical history, recent illnesses/hospitalizations, medications, subspecialty visits, nutrition, sleep, and other issues. In the initial week of telemedicine, only 18 visits were scheduled. In following weeks,	The authors reported a novel experience of rapid implementation of telemedicine in a multi-disciplinary neonatal follow-up program in the United States during the COVID-19 pandemic. 74% of the usual in-person patient volume was covered during this period of exclusive telemedicine.	DeMauro SB, Duncan AF, Hurt H. Telemedicine use in neonatal follow-up programs - What can we do and what we can't - Lessons learned from COVID-19. <i>Semin Perinatol</i> . 2021. doi:10.1016/j.semperi.2021.151430.

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					however, as many as 36 visits per week were scheduled. The show rate ranged from 40% initially to as high as 95%. 74% of the usual in-person patient volume was covered during this period of exclusive telemedicine. The majority of the providers and families concluded that these visits were “not so good as in person, but so much better than no visit.” The authors also discussed the current problems that must be solved in order to optimize telemedicine as a tool for providing comprehensive, multi-disciplinary medical and developmental care to high-risk infants and their families. It is important for providers to ensure that telemedicine meets participants’ and families’ needs, and ongoing program evaluation is needed to determine whether assessments conducted on the telemedicine platform are adequate to capture any evolving developmental delays or medical problems in the high-risk patient population.		
COVID-19; Pregnant women; framework; maternal and child health; professional associations; program design and implementation ; special considerations	6-Apr-21	<a href="#">A Framework for Protecting Pregnant Women in the Era of COVID-19 Pandemic</a>	International Journal of Maternal and Child Health and AIDS	Short Research Communication	The authors developed a uni-directional conceptual framework based on program-articulated tasks to positively influence short- and long-term outcomes of program design and implementation for the pregnant population during the COVID-19 pandemic. They divided the perinatal period into 3: the early prenatal, late prenatal, and peripartum periods. The investigators highlighted the following considerations: early prenatal period: prenatal healthcare visits, supplements, avoidance of exposure to toxic substances; late prenatal periods: healthcare appointments, healthcare screenings, reparation for births; peripartum period: potential for vertical transmission, childbirth-related complications, and breastfeeding. Online resources included telemedicine appointments, childbirth education, and child-rearing services. The following factors were found to be important for maintaining good health for pregnant women: environmental factors-built environments, resource availability, social behaviors, testing centers, and insurance coverage; household factors-pandemic planning and preparedness, essential/remote work, health information, and hygiene; online factors- telemedicine appointments, childbirth education, and child-rearing services. Additionally, they recommended continuing vaccinations such as influenza and Tdap (tetanus, diphtheria, pertussis) vaccines to protect both the mother and the infant. Hence, their collective model highlighted the best practices to protect pregnant patients during the COVID-19 pandemic.	In this article, the authors present their conceptual framework highlighting practices to protect pregnant populations during the COVID-19 pandemic. They underscored the importance of various factors such as environmental factors (adequate social distancing, face coverings), resource availability (access to testing centers, medical assistance, and insurance coverage), and household factors (pandemic planning and preparedness, and hand hygiene) in maintaining good health for the pregnant population.	Dongarwar D, Ajewole VB, Harris K, et al. A Framework for Protecting Pregnant Women in the Era of COVID-19 Pandemic. Int J MCH AIDS. 2021;10(1):109-112. doi:10.21106/ijma.419

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COVID-19; fever; children; prevalence; adults;	6-Apr-21	<a href="#">Prevalence and characteristics of fever in adult and paediatric patients with coronavirus disease 2019 (COVID-19): A systematic review and meta-analysis of 17515 patients</a>	PLoS One	Systematic Review	In this systematic review, the authors aimed to estimate the overall pooled prevalence of fever and chills in addition to fever characteristics (low, medium, and high temperature) in both adult and pediatric COVID-19 patients. Medical databases were searched between December 1, 2019 and April 3, 2020 for both adult (>/=18 years) and pediatric (<18 years) patients. 197 studies (24,266 patients) were included in the systematic review and 167 studies (with 17,142 adults and 373 pediatric patients) were included in the meta-analysis. Ages of the adult and pediatric COVID-19 patients included ranged from 29.1±2.4 to 70.7±13.5 years and from 6.9±0.7 to 8.3±3.5 years, respectively. Overall, the pooled prevalence of fever in the adult and pediatric COVID-19 patients was 79.43% [95% CI: 77.05–81.80, I2 = 95%] and 45.86% [95% CI: 35.24–56.48, I2 = 78%], respectively. Besides fever, 14.45% [95% CI: 10.59–18.32, I2= 88%] of the adult COVID-19 patients experienced chills. In adult COVID-19 patients, among different grades of fever, the prevalence of medium grade fever (44.33%) was higher compared to low- (38.16%) and high-grade fever (14.71%). In addition, the risk of both low (RR: 2.34, 95% CI: 1.69–3.22, p<0.00001) and medium grade fever (RR: 2.79, 95% CI: 2.21–3.51, p<0.00001) were significantly higher compared to high grade fever, however, there was no significant difference between low- and medium-grade fever (RR: 1.17, 95% CI: 0.94–1.44, p=0.16). The authors suggest that fever should be considered as one of the most common initial clinical symptoms for adults; however, in children, fever should be considered as only one of several initial symptoms and within the context of history of exposure to COVID-19 patients, especially household exposures.	The authors aimed to estimate the overall pooled prevalence of fever and chills in addition to fever characteristics (low, medium, and high temperature) in both adult and pediatric COVID-19 patients. They suggest that fever should be considered as one of the most common initial clinical symptoms for adults; however, in children, fever should be considered as only one of several initial symptoms and within the context of exposure history.	Islam MA, Kundu S, Alam SS, Hossan T, Kamal MA, Hassan R. Prevalence and characteristics of fever in adult and paediatric patients with coronavirus disease 2019 (COVID-19): A systematic review and meta-analysis of 17515 patients. PLoS One. 2021;16(4):e0249788. Published 2021 Apr 6. doi:10.1371/journal.pone.0249788
COVID-19; Gender; Mental health; Psychological stress; Women health, financial security	6-Apr-21	<a href="#">Gender-based disparities on health indices during COVID-19 crisis: a nationwide cross-sectional study in Jordan</a>	international Journal for Equity in Health	Original Research	The authors examined gender-based health disparities for adults ≥ 18 years (n = 1300) in Jordan in May 2020 during the COVID-19 pandemic. Age, gender, economic burden, and health indices (healthcare access, health insurance coverage, antenatal and reproductive services, and mental health) were assessed to determine disparities. Mental well-being was assessed by the patients' health questionnaire 4 (PHQ-4), with higher scores indicating a higher risk of anxiety/depression. No significant differences were observed between women and men for health insurance coverage or health care access. However, half of the pregnant women could not access antenatal care, two-thirds could not visit their gynecologist, and 64% could not access family planning services (p < 0.01). Women had a significantly higher mean PHQ-4 score than men (men vs. women: 3.7 vs. 4.7, P < 0.01). Among women, age ≥ 60 years and being married were associated with significantly lower PHQ-4 scores. 0.38% of participants reported job loss, and 8.3% reported reduced pay, though more women experienced reduced pay (13.89%) compared to men (6.92%, p = 0.02). These findings indicate that women in	This article examined gender-based health disparities for people in Jordan during the COVID-19 pandemic. These findings indicate that women in Jordan are experiencing worse outcomes in terms of mental well-being and economic burden during the COVID-19 pandemic. The authors suggest that policymakers prioritize women's mental health and access to antenatal and reproductive services and offer better financial security to working women.	Abufaraj M, Eyadat Z, Al-Sabbagh MQ, et al. Gender-based disparities on health indices during COVID-19 crisis: a nationwide cross-sectional study in Jordan. Int J Equity Health. 2021;20(1):91. Published 2021 Apr 6. doi:10.1186/s12939-021-01435-0

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					Jordan are experiencing worse outcomes in terms of mental well-being and economic burden during the COVID-19 pandemic. The authors suggest that policymakers prioritize women's mental health and access to antenatal and reproductive services and offer better financial security to working women.		
Children, testing, schools, reopening, saliva	6-Apr-21	<a href="#">DRUL for School: Opening Pre-K with safe, simple, sensitive saliva testing for SARS-CoV-2</a>	medRxiv	Preprint (not peer-reviewed)	In this study, the authors validated and implemented a PCR test using an at-home saliva collection kit to detect SARS-CoV-2. Individuals self-collected 300 µl saliva in vials containing Darnell Rockefeller University Laboratory (DRUL) buffer and extracted RNA was assayed by RT-PCR. The limit of detection was confirmed to be 1 viral copy/µl in 20 of 20 replicate extractions. Viral RNA was stable in DRUL buffer at room temperature up to 7 days after sample collection, and safety studies demonstrated that DRUL buffer immediately inactivated virus at concentrations up to 2.75×10 <sup>6</sup> PFU/ml. Direct comparison of results from 162 individuals tested by oropharyngeal or nasopharyngeal swabs with co-collected saliva samples identified 4 otherwise unidentified positive cases in DRUL buffer, indicating that the DRUL saliva assay has similar if not higher sensitivity. The authors then used the assay to collect 3,724 samples from individuals ranging from 3 months-92 years of age, including weekly samples over 10 weeks from teachers, children, and parents from a pre-school program in the USA. This allowed safe pre-school reopening. The authors conclude that they validated a simple, sensitive, stable, and safe PCR-based test using a self-collected saliva sample as a valuable tool for clinical diagnosis and screening at workplaces and schools.	In this study, the authors validated and implemented a PCR test using an at-home saliva collection kit to detect SARS-CoV-2. They found that the test was sensitive, stable, and safe, and was a valuable tool for screening teachers, students, and parents at a pre-school program in the USA. The at-home self-collected saliva sample may be a valuable tool for clinical diagnosis and screening at workplaces and schools allowing for safe reopening.	Frank M, Blachere NE, Parveen S, Hacisuleyman E, Fak J, Luna JM, Michailidis E, Wright S, Stark P, Campbell AH, Foo A. DRUL for School: Opening Pre-K with safe, simple, sensitive saliva testing for SARS-CoV-2. medRxiv. 2021; doi.org/10.1101/2021.04.03.21254873
COVID-19 pandemic, maternal isolated hypothyroxinemia, stress-related	6-Apr-21	<a href="#">The association between COVID-19 pandemic and maternal isolated hypothyroxinemia in first and second trimesters</a>	Psychoneuroendocrinology	Original Research	This prospective cohort study from Shanghai First Maternity and Infant Hospital (China) included pregnant women who received a thyroid function test during the COVID-19 pandemic 21 January - 24 March 2020 (n=2930), and during the same period of 2019 (n=4218). Researchers found a decreased maternal Free T4 (FT4) level during the COVID-19 pandemic in first and second trimesters ( $\beta = -0.131$ , 95% CI= -0.257, -0.006; p=0.040) and in first trimester ( $\beta = -0.176$ , 95% CI= -0.326, -0.026; p=0.022), when adjusting for 25 (OH) vitamin D, vitamin B12, folate, and ferritin (all considered nutrients related to diet and outdoor activity), as well as gestational age, maternal socio-demographic characteristics, and health conditions. The status of pandemic increased the risks of isolated hypothyroxinemia in first and second trimesters (OR=1.547, 95% CI= 1.251, 1.913; p<0.001) and first trimester (OR=1.651, 95% CI=1.289, 2.114; p<0.001), when adjusting for covariates. However, these associations disappeared in the women with positive thyroperoxidase antibodies (total n=854 between both groups; p>0.05). The authors state that thyroid dysfunction	This prospective cohort study included pregnant women who received a thyroid function test during the COVID-19 epidemic 21 January - 24 March 2020, and during the same period of 2019. The authors observed a lower maternal Free T4 level and a higher risk of hypothyroxinemia during the pandemic, when adjusting for the nutrients related to diet and outdoor activity. The authors conclude that responding to the COVID-19 outbreak using lockdown may produce a significant cost to	Hua J, Shen J, Zhang J, et al. The association between COVID-19 pandemic and maternal isolated hypothyroxinemia in first and second trimesters. Psychoneuroendocrinology. 2021. doi:10.1016/j.psyneuen.2021.105210

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					during pregnancy, as a result of the COVID-19 pandemic, could suggest a long-term risk to maternal and offspring health. They also infer that the stress induced by the COVID-19 pandemic might influence maternal FT4 levels to cause isolated hypothyroxinemia. The authors conclude that responding to the COVID-19 outbreak using lockdown may produce a significant cost to public health resources, and that accessibility to public health and medical resources should be reformed under COVID-19 or other future pandemics.	public health resources, and that accessibility to public health and medical resources should be reformed under COVID-19 or other future pandemics.	
Portugal, mother, infant, bonding, anxiety, depression, mindfulness, parental stress, COVID-19 pandemic	6-Apr-21	<a href="#">Postpartum during COVID-19 pandemic: Portuguese mothers' mental health, mindful parenting, and mother-infant bonding</a>	Journal of Clinical Psychology	Research Article	This study sought to determine how Portuguese mothers' anxiety and depression symptoms affected mother-infant bonding in births pre- vs. post-COVID-19 pandemic. 567 mothers (18-46 years old; 414 categorized as pre-pandemic, 153 post-pandemic) with infants (0-12 months) were recruited in April-May 2020 for an online survey. The women completed the Hospital Anxiety and Depression Scale (HADS), the Parental Stress Scale, the Interpersonal Mindfulness in Parenting Scale (IMP), and the Postpartum Bonding Questionnaire (PBQ). Compared to pre-pandemic births, mothers whose infants were born during the pandemic had lower emotional awareness of their infants ( $p<0.001$ ) and decreased bonding ( $p=0.034$ ). The authors created a regression model to predict mother-infant bonding, and found that mindful parenting dimensions accounted for 49.2% of the variance in bonding ( $p<0.001$ ). This suggests that higher levels of parenting stress and lower levels of mindful parenting dimensions were associated with a more impaired mother-infant bonding. These results suggest that an intervention to help mothers manage parenting stress and promote mindful parenting skills might be especially useful to promote mother-infant bonding during the postpartum period, especially in the setting of the COVID-19 pandemic.	This study used an online survey to determine how Portuguese mothers' anxiety and depression symptoms affected mother-infant bonding in births pre- vs. post-COVID-19 pandemic. Compared to pre-pandemic births, authors found that mothers whose babies were born during the pandemic had lower emotional awareness of their infants and decreased bonding, and that high parental stress combined with lack of mindful parenting was associated with impaired mother/infant bonding.	Fernandes DV, Canavarro MC, Moreira H. Postpartum during COVID-19 pandemic: Portuguese mothers' mental health, mindful parenting, and mother-infant bonding [published online ahead of print, 2021 Apr 6]. J Clin Psychol. 2021. doi:10.1002/jclp.23130
Pregnancy, maternal outcomes, vertical transmission, hospitalization, C-section, preterm birth	6-Apr-21	<a href="#">Clinical characteristics and outcome of SARS-CoV-2 infection during pregnancy</a>	Journal of Infection	Letter to the Editor	In this letter, the authors describe their study assessing the epidemiological, clinical characteristics, pregnancy, and perinatal outcomes of 13 hospitalized pregnant patients diagnosed with COVID-19 in China. They searched the China National Knowledge Infrastructure (CNKI), the China Science and Technology Journal database (VIP) and Wanfang Database for case reports on pregnant patients with SARS-CoV-2 and identified 13 hospitalized pregnant patients between January 15-February 29, 2020 (age range 22-38 years). 10 patients (77%) presented with fever and 3 (23%) with dyspnea. 4 (31%) improved after hospitalization and continued after discharge to have an uncomplicated pregnancy. The other 9 patients (69%) all underwent C-section, 6 of which were emergency C-section due to pregnancy complications including maternal hypoxemia (2/9 patients) fetal distress (3/9), severe pre-eclampsia (1/9) and stillbirth (1/9). 7 patients had preterm labor between 28-36 weeks of gestation. Patient 8's	The authors present the epidemiological, clinical characteristics, pregnancy, and perinatal outcomes of 13 hospitalized pregnant patients diagnosed with COVID-19 in China. 9 (69%) delivered via C-section, and 7 had preterm labor. 1 patient had severe infection requiring ICU care, mechanical ventilation, and ECMO. There was no evidence of vertical transmission. The authors conclude that pregnant women are susceptible to SARS-CoV-2	Liu Y, Chen H, Tan W, et al. Clinical characteristics and outcome of SARS-CoV-2 infection during pregnancy. J Infect. 2021; doi.org/10.1016/j.jinf.2021.03.030.

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
					condition deteriorated, prompting ICU admission with multiple organ dysfunction syndrome (MODS) including acute respiratory distress syndrome (ARDS) and septic shock requiring intubation, mechanical ventilation and Extracorporeal Membrane Oxygenation (ECMO). There was no clinical or serologic evidence suggestive of vertical transmission of SARS-CoV-2. The authors conclude that pregnant women are susceptible to SARS-CoV-2 infection, which may increase health risks to both mothers and infants during pregnancy.	infection, which may increase health risks to both mothers and infants during pregnancy.	
COVID-19; delivery; pneumonia; pregnancy; SARS-CoV-2	6-Apr-21	<a href="#">Timing of delivery with COVID-19 pneumonia requiring intensive care unit admission</a>	American Journal of Obstetrics and Gynecology Maternal-Fetal Medicine	Article	The authors present a review of evidence regarding pregnant COVID-19 patients requiring intensive care and escalating oxygen therapy and propose guidelines regarding delivery timing. COVID-19 patients who require mechanical ventilation or extracorporeal membrane oxygenation (ECMO) have a prolonged recovery process. Choosing to deliver before the escalation of oxygen needs or waiting to deliver until after the maternal cardiopulmonary system is stable can be a difficult decision. An expert panel has recommended delivery for severe disease in the mother at ≥32-34 weeks' gestation. The authors suggest that in mothers requiring advanced oxygen delivery of mechanical ventilation with PEEP ≥10cm H2O or V-V ECMO elective delivery should be considered for gestational ages of 32 0/7-33 6/7 weeks, especially if a course of antenatal corticosteroids has been administered. Induction of labor has been successful in ventilated COVID-19 patients; however, non-reassuring fetal status has been reported intrapartum in 34% of pregnancies, according to a systematic review. The authors provide suggested guidelines for maternal and fetal care for multiple gestational ages with a plan to be prepared to deliver if needed. The recommendations include giving antenatal corticosteroids, signing a consent for surgical delivery before the need arising, and a huddle between ICU staff, obstetrics, anesthesiology, and neonatology to devise a strategy for non-reassuring fetal status. The authors conclude that these protocols are based on limited data, and as new therapies become available, the protocols should evolve.	The authors present a review of evidence regarding the pregnant COVID-19 patient requiring intensive care and escalating oxygen therapy and propose guidelines regarding delivery timing. Patients who require mechanical ventilation or ECMO have a prolonged recovery process. Choosing to deliver before the escalation of oxygen needs or waiting to deliver until after the maternal cardiopulmonary system is stable can be a difficult decision.	Rose CH, Wyatt MA, Narang K, Lorenz KE, Szymanski LM, Vaught AJ. Timing of delivery with COVID-19 pneumonia requiring intensive care unit admission. American Journal of Obstetrics & Gynecology MFM. 2021;100373. doi: <a href="https://doi.org/10.1016/j.ajogmf.2021.100373">https://doi.org/10.1016/j.ajogmf.2021.100373</a>
COVID-19, Adolescents, Depression, Study problems, Parent-child relationship	6-Apr-21	<a href="#">Study problems and depressive symptoms in adolescents during the COVID-19 outbreak: poor parent-child relationship as a vulnerability</a>	Globalization and Health	Original Research	This study investigated the prevalence of symptoms of depression, their association with studying problems, and the effects of the parent-child relationship during school closures in adolescents in China during the COVID-19 pandemic. 6,435 middle- and high-school students with a mean age of 15.6 (±1.7) years were enrolled in this study between April 16 - May 14, 2020. Depressive symptoms were measured using the Children's Depression Inventory (CDI) (total scores range from 0-54 with a cutoff score of ≥19 categorizing depression); participants also answered questions about difficulty studying at home, if they disliked remote learning, and the average number of hours of daily screen entertainment. Relationships with parents were also recorded and	The authors investigated the prevalence of symptoms of depression, their association with study problems, and the effects of the parent-child relationship during school closures in adolescents in China during the COVID-19 pandemic. The authors suggest that when students had study difficulties during the pandemic, those who had poor	Wang J, Wang H, Lin H, et al. Study problems and depressive symptoms in adolescents during the COVID-19 outbreak: poor parent-child relationship as a vulnerability. Global Health. 2021;17(1):40. Published 2021 Apr 6. doi:10.1186/s12992-021-00693-5

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					categorized into a good or normal relationship vs a poor relationship. The mean (SD) CDI total score was 11.2 (7.4) for adolescents with a good or normal parent-child relationship and 19.9 (9.9) for those with a poor relationship. The frequency of depression (CDI $\geq$ 19) was 17.7% in the whole sample. There was a significant association between the number of study problems and depressive symptoms in adolescents with a poor parent-child relationship (regression coefficient 4.34 [95% CI 2.97, 5.72]), and this association was stronger than in those with a good or normal relationship (2.55 [2.35, 2.75]), indicating a strong interaction between study problems and parent-child relationship ( $p=0.002$ ). The authors suggest that when students had study difficulties during the pandemic, those who had poor parent-child relationships were more vulnerable to symptoms of depression; this research suggests that interventions that aid students in learning at home during school closures may reduce stress and improve mental health.	parent-child relationships were more vulnerable to symptoms of depression.	
immunisation; pregnancy; maternal immunisation; pertussis; influenza; vaccination uptake; COVID-19	6-Apr-21	<a href="#">Uptake of vaccination in pregnancy</a>	Best Practices and Research and Clinical Obstetrics and Gynaecology	Article	The authors review evidence supporting maternal immunisations during pregnancy and the uptake of pertussis, influenza, and SARS-CoV-2 vaccinations while offering strategies for improving vaccination coverage of this high-risk group. Immunisation during pregnancy is a new strategy that can provide early protection to the newborn when given to the mother in the 2nd or 3rd term. The WHO has recommended the influenza vaccine for pregnant women since 2005. The UK antenatal immunisation programme contains pertussis given as the T-dap (with tetanus, diphtheria, and polio) and the seasonal influenza vaccine. The authors state that pertussis vaccine effectiveness was 90% for children <2 months (95%CI 82-95%) when given antenatally and the influenza vaccine has had clinical effectiveness with a 63% reduction in influenza in infants up to 6 months. Vaccine hesitancy in pregnancy concerns side effects affecting the baby, doubts on efficacy, and unknown necessity. A study in the UK found that white British women were 3 times more likely to accept influenza (95% CI 1.67-6.32) and 4 times for pertussis (95% CI 1.77-13.19) vaccines than other ethnic groups. Pregnant women hospitalized with COVID-19 are 57% (95% CI 7.80-426.70) more likely to be admitted to the ICU and pre-term births are 11 times more likely in pregnant women with symptomatic COVID-19. Although pregnant women were excluded from early COVID-19 vaccine research, the UK advised extremely vulnerable women, including pregnant healthcare workers, to discuss the vaccine with their obstetricians. The authors state that further studies are necessary to identify implementation techniques to improve maternal vaccination rates.	The authors review evidence supporting maternal immunisations during pregnancy and the uptake of pertussis, influenza, and SARS-CoV-2 vaccinations. Pregnant women were excluded from early COVID-19 vaccine research, but the UK advised extremely vulnerable women to discuss the vaccine with their obstetricians.	Sebghati M, Khalil A. Uptake of vaccination in pregnancy. <i>Best Practice &amp; Research Clinical Obstetrics &amp; Gynaecology</i> . 2021. <a href="https://www.sciencedirect.com/science/article/pii/S1521693421000468">https://www.sciencedirect.com/science/article/pii/S1521693421000468</a> . doi: <a href="https://doi.org/10.1016/j.bpobgyn.2021.03.007">https://doi.org/10.1016/j.bpobgyn.2021.03.007</a>

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Immunity, vaccination, neonate, antibodies, placenta, maternal health	6-Apr-21	<a href="#">Efficient Maternal to Neonatal transfer of SARS-CoV-2 and BNT162b2 antibodies</a>	medRxiv	Preprint (not peer-reviewed)	In this multi-center study the authors compare the effect of BNT162b2 mRNA vaccine to native SARS-CoV-2 infection on maternal and fetal immune response. Patients presenting for delivery were recruited at 8 medical centers across Israel and assigned to 3 study groups: vaccinated (n=86), PCR confirmed SARS-CoV-2 infection during pregnancy (n=65), and unvaccinated non-infected controls (n=62). Maternal and fetal blood samples were collected prior to delivery and from the umbilical cord following delivery. Serum IgG and IgM titers were measured using Milliplex MAP SARS-CoV-2 Antigen Panel (for S1, S2, RBD and N antigens). Vaccinated participants receiving the first BNT162b2 dose showed a rapid IgG response to S1, S2, RBD but not N, resulting in high titer values by day 15 after the first dose. At the time of delivery, maternal IgG for S1 and RBD were significantly higher in vaccinated women (p=0.0009, p=0.0045, respectively), while IgG for S2 and N were significantly higher in PCR positive women (p=0.0016, p<0.0001, respectively). Significant positive correlations were found between all fetal and maternal IgG antibodies, suggesting similar placental antibodies transfers following SARS-Cov2 infection and vaccination. The authors conclude that the study demonstrates a robust maternal humoral immune response coupled to a rise in protective antibodies in the fetal circulation after the BNT162b2 mRNA vaccination.	In this study the authors compared the effect of BNT162b2 mRNA vaccine to native SARS-CoV-2 infection on maternal and fetal immune responses. The authors found that the BNT162b2 mRNA vaccine elicits strong maternal humoral IgG response (Anti-S and RBD) that crosses the placenta barrier. Maternal to neonatal anti-SARS-CoV-2 antibodies ratio did not differ when comparing vaccine vs. infection. The authors conclude that a robust maternal humoral immune response coupled to a rise in protective antibodies in the fetal circulation occurs after the BNT162b2 mRNA vaccination.	Beharier O, Mayo RP, Raz T, et al. Efficient Maternal to Neonatal transfer of SARS-CoV-2 and BNT162b2 antibodies. medRxiv. 2021; doi.org/10.1101/2021.03.31.21254674
COVID-19; MIS-C; pediatric health	6-Apr-21	<a href="#">Trends in Geographic and Temporal Distribution of US Children With Multisystem Inflammatory Syndrome During the COVID-19 Pandemic</a>	Journal of the American Medical Association (JAMA) Pediatrics	Original Research	This data analysis described trends in children in the United States diagnosed with MIS-C, as reported to the CDC by health departments. Diagnosis of MIS-C required that the patient be <21 years old with fever, illness involving 2+ organ systems, evidence of inflammation, and confirmed SARS-CoV-2 infection. By January 19, 2021, 1,816 patients who met the case definition for MIS-C were reported to the CDC. 586 (37.4%) of patients with a known race/ethnicity were Hispanic, and 531 (33.9%) were non-Hispanic Black. The proportion of patients who identified as non-Hispanic White increased from 12.2% to 24.1% for those with illness onset before versus after July 1, 2020. Besides fever, the most common symptoms of MIS-C were: abdominal pain (66.5%), vomiting (64.3%), diarrhea (53.7%), and conjunctival hyperemia (53.6%). Patients between 0-4 years old were the least likely group to present gastro-intestinal symptoms, hypotension, shock, cardiac abnormalities, lymphopenia, and thrombocytopenia. They were also least likely to be admitted to intensive care. 24.7% of patients reported having COVID-19-like-illness 7+ days before MIS-C onset. The authors state that their results support the hypothesis that MIS-C onset is due to a delayed immunologic response to SARS-CoV-2 infection.	This data analysis described trends in children in the United States diagnosed with MIS-C, as reported to the CDC by health departments. The authors state that their results support the hypothesis that MIS-C onset is due to a delayed immunologic response to SARS-CoV-2 infection.	Belay ED, Abrams J, Oster ME, et al. Trends in Geographic and Temporal Distribution of US Children With Multisystem Inflammatory Syndrome During the COVID-19 Pandemic. JAMA Pediatr. 2021. doi:10.1001/jamapediatrics.2021.0630

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SARS-CoV-2 infection; upper and lower respiratory tract samples; concordance; children; asymptomatic	5-Apr-21	<a href="#">Concordance of Upper and Lower Respiratory Tract Samples for SARS-CoV-2 in Pediatric Patients: Research Letter</a>  <a href="#">[Free Access to Abstract Only]</a>	Anesthesiology	Correspondence	In this correspondence, the authors aim to determine the concordance of upper and lower respiratory samples for SARS-CoV-2 in asymptomatic children presenting for surgery at a children's hospital in Philadelphia (USA). 360 asymptomatic pediatric patients <math>\leq 18</math> years old who were undergoing procedures for which endotracheal intubation or diagnostic bronchoalveolar lavage were planned, were enrolled between July 10 and November 24, 2020. After the induction of general anesthesia for patients' procedures, tracheal aspirates or bronchoalveolar lavages were collected and nasopharyngeal swabs were also obtained. All samples were tested with an in-house RT-PCR assay and the cycle threshold was 40. 322 tracheal aspirates and 36 bronchoalveolar lavage samples were collected. The median age was 6 years (range, 6 days - 18 years). Of the 358 lower respiratory tract samples, all were negative for SARS-CoV-2. Of the 358 nasopharyngeal samples, 2 of 358 (0.6%) were positive for SARS-CoV-2 infection; this resulted in 99.4% concordance between upper and lower respiratory tract samples ( $P = 0.008$ ). Of the 2 positive nasopharyngeal samples, cycle thresholds were 39.86 and 39.11, both very close to the limit for detection. The authors suggest that nasopharyngeal samples are more sensitive for detecting SARS-CoV-2 than tracheal aspirate or bronchoalveolar lavage samples in asymptomatic pediatric patients; further, it is vital to better understand viral reservoirs and the accuracy of test sampling sites in children.	The authors discussed the concordance of upper and lower respiratory samples for SARS-CoV-2 in asymptomatic children presenting for surgery at a children's hospital in Philadelphia (USA). They suggest that nasopharyngeal samples are more sensitive for detecting SARS-CoV-2 than tracheal aspirate or bronchoalveolar lavage samples in asymptomatic pediatric patients; further, it is vital to better understand viral reservoirs and the accuracy of test sampling sites in children.	Lin EE, Akaho EH, Sobilo A, Blatz AM, Otto WR, Odom John AR. Concordance of Upper and Lower Respiratory Tract Samples for SARS-CoV-2 in Pediatric Patients: Research Letter [published online ahead of print, 2021 Apr 5]. <i>Anesthesiology</i> . 2021;10.1097/ALN.00000000000003765. doi:10.1097/ALN.00000000000003765
vaccination; pregnancy; breastfeeding; COVID-19	5-Apr-21	<a href="#">COVID-19 mRNA vaccines drive differential Fc-functional profiles in pregnant, lactating, and non-pregnant women</a>	bioRxiv	Preprint (not peer-reviewed)	The fine balance of immunological tolerance to allow growth of the fetal graft and immunological changes to protect the dyad, along with other physiological and hormonal changes, may contribute to increased susceptibility to severe COVID-19 in pregnant women. Whether these changes also make pregnant women less responsive to vaccination or induce altered immune responses to vaccination remains incompletely understood. This study profiled the humoral vaccine response in a group of 84 pregnant, 31 lactating and 16 non-pregnant age-matched controls (ages 18-45 years; mean age not reported) in the US between December 17, 2020 and February 23, 2021. Individuals were sampled before vaccination, after 1st dose, and/or after 2nd dose with 1 of 2 mRNA-based COVID-19 vaccines. Vaccine-specific titers were comparable, albeit slightly lower, among pregnant and lactating women, compared to non-pregnant controls. Among pregnant women, the authors found higher antibody titers and functions in those vaccinated with the Moderna vaccine. Compromised placental transfer was observed in pregnant women who had not yet completed the 2nd dose, with improved transfer with increased time from full immunization. Robust levels of IgG and IgA were noted in breastmilk and antibody boosting from the 2nd dose resulted in high FcR-binding titers in breastmilk. After the 2nd	This US study profiled the humoral vaccine response in pregnant, lactating, and non-pregnant controls before vaccination, after the 1st dose, and after the 2nd dose of an mRNA-based COVID-19 vaccine. Vaccine-specific titers were comparable, albeit slightly lower, among pregnant and lactating women, compared to non-pregnant controls. Placental transfer of antibodies was observed along with robust levels of IgG and IgA in breastmilk, particularly after the 2nd dose. These data point to the critical need to follow timelines for the 1st and 2nd vaccine doses in this population to ensure full immunity is attained.	Atyeo C, DeRiso EA, Davis C, et al. COVID-19 mRNA vaccines drive differential fc-functional profiles in pregnant, lactating, and non-pregnant women. bioRxiv. 2021:2021.04.04.438404. doi: 10.1101/2021.04.04.438404.

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					dose, the vaccine response in lactating women was similar to that of non-pregnant women. These data point to the critical need to follow timelines for the 1st and 2nd vaccine doses in this population to ensure full immunity is attained.		
COVID-19; postpartum; pregnancy; telehealth; telemedicine; virtual visits	5-Apr-21	<a href="#">Models of Incorporating Telehealth into Obstetric Care During the COVID-19 Pandemic, Its Benefits And Barriers: A Scoping Review</a>	Telemedicine Journal and E-Health	Review	This review aimed to determine how health care organizations are responding to the COVID-19 pandemic by incorporating telehealth visits into their protocols for obstetrics care, what services have been converted to telehealth, and its benefits and barriers. A literature search was performed using PubMed and Cumulative Index of Nursing and Allied Health Literature databases using terms including "telehealth," "virtual visits," "obstetric," "pregnancy," "postpartum," and "COVID-19" for peer-reviewed articles and guidelines published before October 2020. A total of 25 articles were identified, 15 of which reported protocols. During the pandemic, protocols were developed to replace some in-person visits with telehealth visits, for which no testing or vaccinations were required. The main reported benefits were minimizing exposure to SARS-CoV-2 and the continuity of providing high-quality and safe care. Lack of access to high-speed internet and hardware and inaccessibility to patients were the most reported barriers. Telehealth provided the opportunity for reducing in-person visits during the COVID-19 pandemic. Some prenatal services could be completely provided through telehealth and others required medical equipment to be delivered. Health care organizations recognized that using telehealth could be continued beyond this pandemic, as it provided many benefits for patients, medical staff, and organizations.	This review aimed to determine how health care organizations are responding to the COVID-19 pandemic by incorporating telehealth visits into their protocols for obstetrics care, what services have been converted to telehealth, and its benefits and barriers. Telehealth provided the opportunity for reducing in-person visits during the pandemic. Lack of access to high-speed internet and hardware and inaccessibility to patients were the most reported barriers.	Almuslim H, AlDossary S. Models of Incorporating Telehealth into Obstetric Care During the COVID-19 Pandemic, Its Benefits And Barriers: A Scoping Review. Telemed J E Health. 2021. doi:10.1089/tmj.2020.0553.
COVID-19; screening, rapid antigen test; United States	5-Apr-21	<a href="#">Evaluation of the Abbott BinaxNOW rapid antigen test for SARS-CoV-2 infection in children: Implications for screening in a school setting</a>	PLoS One	Article	The authors examined the positive and negative concordance between rapid SARS-CoV-2 antigen (BinaxNOW™) and oral fluid RT-PCR (Curative Labs) tests among children at a community-based COVID-19 testing site in the United States from 25 November-9 December 2020. 774 children (65% between ages 5-11 years; 49.5% male; 84.2% Hispanic) had valid RT-PCR and antigen results. 76.5% were asymptomatic. Positive concordance was determined as the fraction of RT-PCR-positive participants that were also antigen positive. Negative concordance was determined as the fraction of RT-PCR negative participants that were also antigen negative. 226 children tested positive on RT-PCR; 127 children or 56.2% (95% CI: 49.5-62.8%) of these also tested positive on the rapid antigen test. Positive concordance was higher among symptomatic children (64.4%; 95% CI: 53.4-74.4%) compared to asymptomatic children (51.1%; 95% CI: 42.5-59.7%). Positive concordance was negatively associated with cycle threshold (Ct) values and was 93.8% (95% CI: 69.8-99.8%) for children with Ct values ≤25. 548 children tested negative on RT-PCR; 539 or 98.4% (95% CI: 96.9-99.2%) of these also tested negative on the rapid antigen test. Negative concordance was higher among	The authors examined the positive and negative concordance between rapid SARS-CoV-2 antigen (BinaxNOW™) and oral fluid RT-PCR (Curative Labs) tests among children at a community-based COVID-19 testing site in the United States from 25 November-9 December 2020. Rapid antigen testing can successfully identify most COVID infections in children with viral load levels likely to be infectious. Serial rapid testing may help compensate for limited sensitivity in early infection.	Sood N, Shetgiri R, Rodriguez A, et al. Evaluation of the Abbott BinaxNOW rapid antigen test for SARS-CoV-2 infection in children: Implications for screening in a school setting. PLoS One. 2021;16(4):e0249710. doi:10.1371/journal.pone.0249710.

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					asymptomatic children (98.9%; 95% CI: 97.4-99.6%), compared to symptomatic children (95.8%; 95% CI: 89.6-98.8%). Rapid antigen testing can successfully identify most COVID infections in children with viral load levels likely to be infectious. Serial rapid testing may help compensate for limited sensitivity in early infection.		
screening; treatment; depression; anxiety; perinatal mental health	5-Apr-21	<a href="#">A structured program for perinatal depression and anxiety to be adopted in the emergencies</a>	Annali dell'Istituto superiore di sanita	Article	The authors describe a structured screening and treatment program for anxiety and depression in the perinatal period that has been adopted for use during the COVID-19 pandemic in Italy. The program consists of an empowerment phase to raise awareness on perinatal mental health problems and propose a screening. The authors state this can be completed in routine visits before, during the delivery time, or during initial follow-up visits for infants and mothers. The screening phase uses the National Institute for Health and Care Excellence questions for depression and the Generalized Anxiety Disorder Scale. If a woman screens for suspicion of anxiety or depression, then the assessment phase is carried out by a psychologist or psychiatrist. This phase may be done in person following recommended COVID-19 prevention measures. The treatment phase can use the MumMood Booster version from the Australian Parent-Infant Research Institute or individual or group therapy using online communication platforms. The authors state that this program can be a useful tool for screening and treating perinatal depression and anxiety given the WHO states that mental health services have been disrupted or halted in 93% of countries due to COVID-19.	The authors describe a structured screening and treatment program for anxiety and depression in the perinatal period that has been adopted for use during the COVID-19 pandemic in Italy. It can be a useful tool when the WHO states that mental health services have been disrupted or halted in 93% of countries.	Camoni L, Brescianini S, Mirabella F, et al. A structured program for perinatal depression and anxiety to be adopted in the emergencies. <i>Ann Ist Super Sanita</i> . 2021;57(1):67-71. doi:10.4415/ANN_21_01_10
COVID-19; telemedicine; telehealth; mental health; prenatal; neonatal intensive care	5-Apr-21	<a href="#">The Rise of Tele-Mental Health in Perinatal Settings [Free Access to Abstract Only]</a>	Seminars in Perinatology	Commentary	The authors describe the increasing utilization of tele-mental health services in settings serving expectant parents in fetal care centers and parents with children receiving treatment in neonatal intensive care units within a pediatric institution during the COVID-19 pandemic in the United States. The authors describe the rising utilization of these services during the pandemic along with practice regulations, challenges in providing tele-mental health services, and advantages of tele-mental health services. Higher rates of perinatal and postpartum anxiety and depression have been reported during the pandemic, and these symptoms can be exacerbated by medical complications, stillbirth, and prolonged hospitalization. Decreased socialization during the pandemic and fewer facility social supports such as visitation restrictions and closure of chapels can result in unmet mental health needs during the pandemic. Benefits of tele-mental health services noted by the authors include scheduling flexibilities, parents not needing to travel, fewer no-shows, parents being able to receive distressing news in the comfort of the home environment, and immediate access to grief psychotherapy. Challenges in implementing tele-mental health services during the pandemic have included the need for rapid cooperation among stakeholders, lack of infrastructure, logistical issues, technology access issues, unstable	The authors describe the increasing utilization of tele-mental health services in settings serving expectant parents in fetal care centers and parents with children receiving treatment in neonatal intensive care units during the COVID-19 pandemic in the United States. Practice regulations relevant to tele-mental health services are described, along with the challenges and benefits of tele-mental health. Overall the authors note that tele-mental health has allowed some parents to overcome barriers to care, though challenges with logistics and distractions can impede use.	Geller PA, Spiecker N, Cole JCM, Zajac L, Patterson CA. The Rise of Tele-Mental Health in Perinatal Settings. <i>Semin Perinatol</i> . 2021:151431. https://www.sciencedirect.com/science/article/pii/S014600052100458. doi:https://doi.org/10.1016/j.semperi.2021.151431.

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					internet connections, difficulties managing group sessions, and digital literacy. Overall the authors note that tele-mental health has allowed some parents to overcome barriers to care, though challenges with logistics and distractions can impede use.		
SARS-CoV-2; maternal health; perinatal outcomes; placental pathology	5-Apr-21	<a href="#">Maternal and perinatal outcomes and placental pathologic examination of 29 SARS-CoV-2 infected patients in the third trimester of gestation</a>	Journal of Obstetrics and Gynaecology Research	Original Research	This cross-sectional study examined the neonates and placentas of women in Spain who had contracted SARS-CoV-2 during their third trimester, and compared them to references from before the COVID-19 pandemic. This study utilized data from 29 women and their 32 infants born between March 13-May 11, 2020 (mean gestational age at delivery = 37 weeks, 2 days; range = 33 weeks, 1 day -41 weeks, 3 days). Control samples (n=58) were collected in 2017. All but 1 neonate tested negative for SARS-CoV-2 via PCR on nasopharyngeal swabs within 48 hours of birth. Control gestations were more likely to end later than COVID-19 gestations (p=0.005). In the COVID-19 group, researchers observed: 1 case of placenta increta, 1 case of placentomegaly, and 1 case with chronic infarctions macroscopically visible. Most COVID-19 cases displayed focal features of villous chorangiomas (59%) or delayed villous maturation (53%), usually in association. 16% of participants with COVID-19 had acute chorio-amnionitis, 19% had chronic villitis, and 16% had no relevant lesions. All COVID-19 cases had focally dystrophic calcifications, patches of fibrin among villi, and syncytial knots. In addition, the control group were more likely to have acute chorio-amnionitis (39.7% vs. 15.6%, p=0.020) and acute funisitis (22.4% vs. 3.1%, p=0.016). The researchers conclude that SARS-CoV-2 is inefficient at crossing the placental barrier, and that vertical transmission is rare.	This cross-sectional study examined the neonates and placentas of women in Spain who had contracted SARS-CoV-2 during their third trimester, and compared them to references from before the COVID-19 pandemic. The researchers conclude that their results suggest that SARS-CoV-2 is inefficient at crossing the placental barrier, and that vertical transmission is rare.	Santana LB, Wong EM, Alvarez-Troncoso J, et al. Maternal and perinatal outcomes and placental pathologic examination of 29 SARS-CoV-2 infected patients in the third trimester of gestation. J Obstet Gynaecol Res. 2021. doi: <a href="https://doi.org/10.1111/jog.14784">https://doi.org/10.1111/jog.14784</a>
research ethics; COVID-19; corticosteroids	4-Apr-21	<a href="#">Statistics Should Be Carefully Interpreted: Vitamin K for Newborn Hemorrhages and Steroids for COVID-19</a>	Pediatric Emergency Care	Letter to the Editor	This opinion piece uses past vitamin K misinformation and a recent statement against corticosteroid usage during the COVID-19 pandemic as examples of how future research into COVID-19 should be wary of its effects on clinical practice. In 1992, an article claimed that vitamin K injections given to newborns to prevent early hemorrhagic disease were statistically associated with later childhood cancers. Most research since has not found this association, but the results have continued to impact pediatrician recommendations and parent willingness for infants to receive the injection. During the early stages of the COVID-19 pandemic, the WHO issued a statement against corticosteroid usage that the authors argue was made “without strong clinical or statistical evidence.” Since this statement was made, research has displayed that low-to-moderate doses of corticosteroids are justifiable in improving survival among critically ill patients with hyperinflammation. The authors conclude that, although the pandemic has required quickly conducted and released studies, researchers should remember that results published and cited before the peer review process can lead to unintended clinical consequences.	This opinion piece uses past vitamin K misinformation and a recent statement against corticosteroid usage during the COVID-19 pandemic as examples of how future research into COVID-19 should be wary of its effects on clinical practice. The authors conclude that, although the pandemic has required quickly conducted and released studies, researchers should remember that results published and cited before the peer review process can lead to unintended clinical consequences.	Leung KKY, Hon KLE. Statistics Should Be Carefully Interpreted: Vitamin K for Newborn Hemorrhages and Steroids for COVID-19. Pediatric Emergency Care. 2021; 37(4). doi: <a href="https://doi.org/10.1097/PEC.0000000000002337">10.1097/PEC.0000000000002337</a>

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
COVID-19; infectious risk; pediatric kidney transplant	3-Apr-21	<a href="#">COVID-19 infection in a pediatric kidney transplant population: A single-center experience</a>	Pediatric Transplantation	Original article	The authors conducted a cohort study of 24 pediatric ( $\leq 21$ years) kidney transplant recipients with transplants from May 2017 - May 2020 at a US hospital to compare COVID-19 positive and negative patient characteristics and clinical courses. 22 patients were included in the study, with a median age of 16.5 years (age range 5-21), and all had COVID-19 antibody (Ab) testing; 8 (36%) also had SARS-CoV-2 PCR testing, 2 of which had COVID-19 symptoms. 5 patients had SARS-CoV-2 positive test results: 1 by PCR and 4 by IgG. 1 of the IgG positive patients had been symptomatic and had 2 negative PCR tests, which the author's state were probably false negatives; the symptoms might have been from another cause. The 1 PCR positive patient was an 18-year-old female 62 days post-transplant with COVID-19 symptoms of fever and chest tightness. She received no specific COVID-19 treatment and was discharged home from the emergency department with home oxygen and follow-up plans. The other symptomatic patient with 2 negative PCRs was a 14-year-old female patient 924 days post-transplant who did have a COVID-19 positive household contact. She was admitted for 1-day in-hospital treatment of IV fluids due to elevated creatinine of 1.83mg/dl (baseline 1.6mg/dl) that improved. The authors report that those with COVID-19 positive tests were more likely to have a known exposure ( $p=0.006$ ) and were more likely female ( $p=0.011$ ). Of the 2 symptomatic patients, only one had a change to her immunosuppressive regimen, and both had mild cases of COVID-19. None of the patients had significant changes in creatinine levels, transplant rejection, or signs of multi-system inflammatory syndrome in children. The authors state that pediatric kidney transplant patients may have asymptomatic or mild cases of COVID-19 that require no major reductions in immunosuppression.	The authors conducted a cohort study of 24 pediatric kidney transplant recipients with transplants from May 2017- May 2020 at a US hospital to compare SARS-CoV-2 positive and negative patient characteristics and clinical courses. Pediatric kidney transplant patients may have asymptomatic or mild cases of COVID-19 that require no major reductions in immunosuppression.	Singer PS, Sethna C, Molmenti E, et al. COVID-19 infection in a pediatric kidney transplant population: A single-center experience [published online ahead of print, 2021 Apr 3]. <i>Pediatr Transplant</i> . 2021:e14018. doi:10.1111/ptr.14018
COVID-19, SARS-CoV-2, antibody screening, child health, school opening	3-Apr-21	<a href="#">A Public Health Antibody Screening Indicates a Marked Increase of SARS-CoV-2 Exposure Rate in Children during the Second Wave</a>	Med	Research Report	This research report describes a dual antibody testing strategy to monitor childhood SARS-CoV-2 antibody frequency in Bavaria, Germany. 15,523 children were tested during the first wave of the COVID-19 pandemic (January- August 2020), and another 11,380 were tested during the second wave (September 2020 - February 2021; overall age range: 1-10 years [no additional age data given]). Antibody frequency increased during the second wave to 3.92% (95% CI: 3.57-4.29) from 0.68% during the first wave (95% CI: 0.56-0.82; $p<0.001$ ). Antibody frequencies in 2021 were 3 to 4 times higher than the positive frequencies reported by PCR testing for both pre-school and school-age children ( $p<0.001$ ). More pre-school children with detected SARS-CoV-2 antibodies were asymptomatic (68.0%) than school-age children with detected antibodies (51.2%; $p=0.001$ ). Researchers hypothesized that the observed increase in SARS-CoV-2 antibodies was most likely caused by higher virus exposure during the winter months, school openings, and the introduction of new viral variants. They state	This research report describes a dual antibody testing strategy to monitor childhood SARS-CoV-2 antibody frequency in Bavaria, Germany. Researchers observed an increase in children with SARS-CoV-2 antibodies during the second wave of the COVID-19 pandemic, and a higher rate of infection than observed by PCR surveillance.	Hippich M, Siffert P, Zapardiel-Gonzalo J, et al. A public health antibody screening indicates a marked increase of SARS-CoV-2 exposure rate in children during the second wave. <i>Med</i> . 2021; 2(1-2). doi: https://doi.org/10.1016/j.medj.2021.03.019

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					that children are susceptible to SARS-CoV-2 infection, and that their rates of infection may be higher than has been reported by PCR data.		
Europe; school closures; COVID-19; pediatric mental health; SARS-CoV-2	3-Apr-21	<a href="#">French pediatric societies call for school to stay open amid the COVID-19 pandemic</a>	The Journal of Pediatrics	Editorial	The authors from French pediatric societies, the European Paediatric Association, and other European pediatric centers highlight the importance of European children's health and wellbeing and recommend keeping schools open during the ongoing COVID-19 pandemic. The European Center for Disease Prevention and Control reported that during 2020 in European Union countries and the UK, <5% of COVID-19 cases involved those <18 years. The evidence available has shown that children are more likely to contract SARS-CoV-2 in the family setting than at school. Prolonged school closures expose children to serious mental and social distress, leading to potentially serious long-term effects. European pediatric providers have observed a significant increase in consultations and hospitalizations for mental disorders, including anxiety, depression, dark thoughts, and suicidal acts, along with increased violence and abuse against children [no ages are given]. In France from September 2020- March 2021, teachers and students (ages 6-18 years) who were periodically tested for SARS-CoV-2 at school had mean positivity rates of 0.05% (±0.06%) for teachers and 0.10% (±0.09%) for students. Increasing epidemiological data raises concerns about the negative effects the pandemic has on children's mental and social health. The authors conclude that with careful planning and adequate safety measures, schools should stay open.	The authors from French pediatric societies, the European Paediatric Association, and other European pediatric centers highlight the importance of European children's health and wellbeing and recommend keeping schools open during the ongoing COVID-19 pandemic. Reports from the European Union state that <5% of COVID-19 cases involved those <18 years.	Gras-Le Guen C, Hentgen V, Dubos F, et al. French Pediatric Societies Call for School to Stay Open Amid the COVID-19 Pandemic [published online ahead of print, 2021 Apr 3]. <i>J Pediatr.</i> 2021;S0022-3476(21)00322-X. doi:10.1016/j.jpeds.2021.04.001
COVID-19; Mixed methods; Vaccine; Youth	3-Apr-21	<a href="#">National Study of Youth Opinions on Vaccination for COVID-19 in the U.S</a>	Journal of Adolescent Health	Original Research	This study aimed to understand the opinions and potential obstacles to COVID-19 vaccination among US youth. On October 30, 2020, 5 open-ended questions regarding COVID-19 vaccination were administered via MyVoice, an ongoing national text message poll, to a US cohort of youth ages 14 to 24 [median age: 18 years, IQR: 17-21 years]. Responses were coded through qualitative thematic analysis, and a multivariable logistic regression tested the association of demographic characteristics with vaccination unwillingness. Among 911 respondents (response rate = 79.4%), 76% reported willingness to receive a COVID-19 vaccine with 42.7% having unconditional willingness and 33.3% conditionally willing. The majority (80.7%) were willing to vaccinate if experts deemed vaccination safe and recommended with preferred vaccine information sources being medical organizations such as CDC and WHO (42.3%) and health care professionals (31.7%). Frequent concerns with vaccination included side effects (36.2%) and efficacy (20.1%). Race predicted higher odds of vaccination unwillingness among Black youth and lower odds of vaccination unwillingness among Asian youth [compared to White, Black: Odds Ratio (OR) = 3.31, p < 0.001 and Asian: OR = 0.46, p < 0.001]. Most youth in this national sample were willing to receive a COVID-19	This study aimed to understand the opinions and potential obstacles to COVID-19 vaccination among youth. Among 911 respondents, 76% reported willingness to receive a COVID-19 vaccine with 42.7% having unconditional willingness and 33.3% conditionally willing. Most youth in this national sample were willing to receive a COVID-19 vaccine when they believe it is safe and recommended.	Brandt EJ, Rosenberg J, Waselewski ME, Amaro X, Wasag J, Chang T. National Study of Youth Opinions on Vaccination for COVID-19 in the U.S [published online ahead of print, 2021 Apr 3]. <i>J Adolesc Health.</i> 2021;S1054-139X(21)00098-7. doi:10.1016/j.jadohealth.2021.02.013

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					vaccine when they believe it is safe and recommended. Public health experts and organizations must generate youth-centered materials that directly address their vaccination concerns.		
social isolation; COVID-19; lifestyle; diet; nutrition; eating habitsf	3-Apr-21	<a href="#">Eating habits of children and adolescents during the COVID-19 pandemic: the impact of social isolation</a>	Journal of Human Nutrition and Diet	Original Research	This cross-sectional study aimed to assess the behavior and dietary patterns of Brazilian children and adolescents during the social isolation imposed by the COVID-19 pandemic. Participants recruited included 589 children (2-9 years old) and 720 adolescents (10-18 years old) via online survey questionnaires between May 7 and June 12, 2020. In addition to dietary and lifestyle habits, behaviors, and sociodemographic information, data on isolation status (working outside the home, self-isolation, and close-contact isolation) and frequencies of outdoor activities were collected. Lower-class families, with adolescents, and from the North and Northeast regions were the least isolated ( $p < 0.001$ ). When compared to children, adolescents were less isolated ( $p=0.02$ ), less active ( $p < 0.001$ ), exposed to longer screen time ( $p < 0.001$ ), showed a more inadequate sleeping pattern ( $p = 0.002$ ), and came from lower-class families ( $p < 0.001$ ). The authors found a statistically significant difference in the weekly consumption of milk and dairy products, fresh fruits and fruit juices, and vegetables, with upper- and middle-class families, isolated ( $p < 0.05$ ) or not ( $p < 0.05$ ), consuming them more frequently. Soft drink intake also differed, being more common among lower-class families, isolated ( $p < 0.05$ ) or not ( $p < 0.01$ ). This study concluded that social isolation might influence the eating habits of children and adolescents by enabling non-isolated families to consume healthy food less frequently, particularly those of lower-classes from Northeast Brazil, and adolescents. The authors suggest that health authorities should reinforce nutritional support strategies targeting this age group, especially during the suspension of activities and social isolation.	This cross-sectional study identified behavioral and dietary patterns of Brazilian children and adolescents during COVID-19-associated isolation. The authors found that social isolation affects the eating habits of children and adolescents by enabling non-isolated families to consume healthy food less frequently, particularly those of lower-classes from Northeast Brazil, and adolescents. The authors suggest that health authorities should reinforce nutritional support strategies targeting this age group, especially during the suspension of activities and social isolation.	Teixeira MT, Vitorino RS, da Silva JH, Raposo LM, de Aquino LA, Ribas SA. Eating habits of children and adolescents during the COVID-19 pandemic: the impact of social isolation [published online, 2021 Apr 3]. J Hum Nutr Diet. 2021. doi:10.1111/jhn.12901
SARS-CoV-2; PIMS-TS; children; ocular symptoms; anterior uveitis	3-Apr-21	<a href="#">Anterior uveitis in paediatric inflammatory multisystem syndrome temporally associated with SARS-CoV-2</a>	The Lancet	Case Study	In this case report, the author describes a 12-year-old male with no significant prior medical history who presents to a hospital in the Netherlands with a 6-day history of malaise and fever of unknown origin [dates not reported]. Physical exam revealed conjunctival hyperemia, a macular exanthem and a strawberry tongue. Laboratory testing revealed several abnormalities; elevated liver enzymes including aspartate aminotransferase (186 U/L) and alanine aminotransferase (123 U/L), elevated C-reactive protein (289 mg/L), elevated troponin (78 ng/L), elevated N-terminal-pro-B-type natriuretic peptide (6302 pg/mL), elevated ferritin (1991 $\mu\text{g/L}$ ) and a low albumin (19.9 g/L). At the time of initial evaluation, an RT-PCR for SARS-CoV-2 was negative. Due to unstable vital signs, the patient was transferred to the ICU and treated for a suspected diagnosis of PIMS-TS or Kawasaki disease. On the 7th day of admission, the patient reported bilateral blurred vision; his visual acuity and eye pressures remained within normal limits,	The author described a 12-year-old male who presented with symptoms consistent with PIMS-TS and further developed ocular symptoms. Due to the potential ocular complications associated with SARS-CoV-2 infection, including anterior uveitis, swift recognition and treatment is imperative to prevent complications such as visual impairment.	Chung W, Engin O, Wolfs TFW et al. Anterior uveitis in paediatric inflammatory multisystem syndrome temporally associated with SARS-CoV-2. Lancet. 2021; 397 (10281):E10. doi:10.1016/S0140-6736(21)00579-1

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					however there was mild anterior chamber reaction. He was diagnosed with anterior uveitis (AU) and was treated with steroid eye drops. SARS-CoV-2 antibodies were identified in his blood and a definitive diagnosis of PIMS-TS was made. Due to the potential ocular complications associated with SARS-CoV-2 infection, including AU, swift recognition and treatment is imperative to prevent complications such as visual impairment.		
Obstetrics, risk score, maternal-fetal medicine, respiratory support, pregnancy	2-Apr-21	<a href="#">Initial clinical characteristics of gravid SARS-CoV-2 positive patients and the risk of progression to severe COVID-19 disease</a>	American Journal of Obstetrics and Gynecology Maternal-Fetal Medicine	Original Research	In this retrospective cohort study, the authors developed an early warning score to identify pregnant patients at risk of requiring advanced respiratory support (ARS) from SARS-CoV-2. 50 patients with SARS-CoV-2 between April-November, 2020 were used to create the prediction model in California, USA. Initial clinical characteristics were compared between patients who required ARS and patients who were asymptomatic or had mild symptoms. The Obstetric Warning Score (OWS) was then validated using 30 patients diagnosed with SARS-CoV-2 infection in December 2020. Women who required ARS were more likely to present with dyspnea (p<0.001), have higher heart rate (p<0.001), higher respiratory rate (p<0.001), higher temperature (p=0.004) and higher C-Reactive Protein (CRP) (p<0.001). 88.2% of ARS patients showed chest X-ray findings consistent with pneumonia, compared to 20.0% of non-ARS patients (p<0.001). The OWS model included 1 point each for heart rate > 100 bpm, temperature > 99.0 °F, CRP >2.0 mg/dL, respiratory rate between 20-24 bpm, complaints of dyspnea and positive chest X-ray. Respiratory rate >24 bpm was assigned 2 points. An OWS score ≥3 was predictive of ARS requirement with a sensitivity of 100%, specificity 64%, and positive predictive value of 36%. The authors conclude that the OWS presents a validated method for providers to identify pregnant patients who are at risk of respiratory failure and requiring advanced respiratory support (ARS).	In this study, the authors developed and validated the Obstetric Warning Score (OWS) to identify pregnant patients at risk of requiring advanced respiratory support (ARS) from SARS-CoV-2. Using heart rate, temperature, respiratory rate, dyspnea, and chest X-ray, they found that the OWS score ≥3 was predictive of ARS requirement with a sensitivity of 100%, specificity 64%, and positive predictive value of 36%. The authors conclude that the OWS presents a method for providers to identify pregnant patients who are at risk of respiratory failure and requiring advanced respiratory support (ARS) from SARS-CoV-2.	Yao R, Martin CB, Haase VS, et al. Initial clinical characteristics of gravid SARS-CoV-2 positive patients and the risk of progression to severe COVID-19 disease. Am J Obstet Gynecol MFM. 2021;100365. doi:10.1016/j.ajogmf.2021.100365
Australia, COVID-19, symptomatic, testing, children, parents	2-Apr-21	<a href="#">Testing children with COVID-19 symptoms: what are parents' intentions?</a>	Medical Journal of Australia	Letter to the Editor	The authors investigated the intended actions of Australian parents if their children were to develop COVID-19 symptoms. They collected data during 15–23 June 2020 via an online survey of 1834 Australian parents of children aged 3–17 years who attended childcare, kindergarten and/or school. The sample was limited to these respondents, as one of the objectives was to test if children would be kept home from childcare and/or school (isolate). Researchers found that 1458 of 1834 parents (78.95%, weighted) of children with symptoms compatible with COVID-19 intended to seek a COVID-19/SARS-CoV-2 test for their child. Timely testing is a critical aspect of containing the pandemic. Given that one in five parents indicated they would not bring a symptomatic child for testing, further research is urgently needed to identify and understand barriers to testing, in order to inform targeted strategies and messaging to enhance testing uptake in children.	The authors investigated the intended actions of Australian parents (n=1843) if their children (3-17 years old) were to develop COVID-19 symptoms. They found that 1458 of 1834 parents (78.95%, weighted) of children with symptoms compatible with COVID-19 intended to seek a COVID-19/SARS-CoV-2 test for their child. Given that one in five parents indicated they would not bring a symptomatic child for testing, further research is needed to identify	Measey MA, Hoq M, Rhodes AL. Testing children with COVID-19 symptoms: what are parents' intentions? [published online ahead of print, 2021 Apr 2]. Med J Aust. 2021. doi:10.5694/mja2.51004

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						and understand barriers to testing to enhance testing uptake in children.	
COVID-19 vaccination; vaccines; equity; BIPLOC; health disparity	2-Apr-21	<a href="#">COVID-19 Vaccination of Adolescents and Young Adults of Color: Viewing Acceptance and Uptake With a Health Equity Lens</a>	Journal of Adolescent Health	Commentary	The authors discuss the disproportionate burden of COVID-19 on Black, Indigenous, Latinx, and other People of Colour (BILPOC) adolescents and young adults (AYAs) who, due to their economic, work, and housing conditions, bear disproportionate morbidity and mortality of COVID-19. Highlighting historical, structural, psychosocial factors, and social determinants as factors impacting vaccine hesitancy, they recommend guidelines to engage AYAs and increase vaccine uptake in the subpopulation. They describe strategies to ensure equitable allocation and acceptance of the COVID-19 vaccine for BILPOC AYAs, including BILPOC engagement to improve COVID-19 vaccine trust and vaccination efforts, acknowledgment of the existence of racism in medicine and medical history to earn BILPOC AYAs trust and increased enrollment of BILPOC and ethnically diverse in vaccine clinical trials. They also recommend prioritizing BILPOC communities and engaging them in the development and dissemination of public communication strategies and products, designing vaccination outreach programs targeting the psychosocial characteristics of AYAs such as the desire to fit in, and informing individuals who are migrant workers, undocumented, or uninsured that the vaccine is free and most states do not require proof of residency or other documents. They conclude that public health strategies investing in serving hard-hit BILPOC communities, including AYAs, focusing on acknowledging racism and regaining trust, reducing disparity, and incorporating principles of equality, equity, and justice, will ultimately result in increased vaccination and decreased morbidity and mortality for all.	The authors discuss the disproportionate burden of COVID-19 on Black, Indigenous, Latinx, and other People of Colour (BILPOC) adolescents and young adults (AYAs) who, bear disproportionate morbidity and mortality of COVID-19. They describe strategies and provide recommendations to ensure equitable allocation and acceptance of the COVID-19 vaccine for BILPOC AYAs. They conclude that public health strategies investing in serving hard-hit BILPOC communities, including AYAs, focusing on acknowledging racism and regaining trust, reducing disparity, and incorporating principles of equality, equity, and justice, will ultimately result in increased vaccination and decreased morbidity and mortality for all.	Coyne-Beasley T, Hill SV, Zimet G, et al. COVID-19 Vaccination of Adolescents and Young Adults of Color: Viewing Acceptance and Uptake With a Health Equity Lens [published online, 2021 Apr 1]. J Adolesc Health. 2021;S1054-139X(21)00093-8. doi:10.1016/j.jadohealth.2021.02.008
COVID-19; breast-feeding; mobile health	2-Apr-21	<a href="#">Mobile Health Approaches to Breastfeeding</a>  <a href="#">[Free Access to Abstract Only]</a>	Clinical Obstetrics and Gynecology	Review Article	The authors reviewed prior studies on mobile Health (mHealth) in breastfeeding and highlight areas for future research in light of the COVID-19 pandemic. Mobile health interventions such as web-based/online education or smartphone applications have shown promise in increasing breastfeeding initiation and supporting breastfeeding continuation. The importance of such mHealth-based breastfeeding support has increased significantly during the pandemic as traditional in-person postpartum and lactation support becomes replaced with virtual care. However, more research is needed to confirm the efficacy of mHealth breastfeeding interventions in economically, geographically, and racially/ethnically diverse groups of women. It is important to consider that different mHealth breastfeeding interventions may be needed in different patient populations, incorporate a precision-medicine-type approach, and improve infant nutrition outcomes in distinct communities more effectively.	The authors reviewed prior studies on mobile Health (mHealth) in breastfeeding and highlight areas for future research in light of the COVID-19 pandemic. Mobile health interventions such as web-based/online education or smartphone applications have shown promise in increasing breastfeeding initiation and supporting breastfeeding continuation.	Lewkowitz AK, Cahill AG. Mobile Health Approaches to Breastfeeding. Clin Obstet Gynecol. 2021. doi:10.1097/GRF.0000000000000606.

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SARS-CoV-2; pregnancy; viral load; neonates	2-Apr-21	<a href="#">Relationship between viral load, infection-to-delivery interval and mother-to-child transfer of anti-SARS-CoV-2 antibodies</a>	Ultrasound in Obstetrics and Gynecology	Original Research	The authors conducted a prospective case-series study to investigate the association between SARS-CoV-2 viral load and infection-to-delivery interval in pregnant women with SARS-CoV-2 infection in China. The study included 20 SARS-CoV-2 positive pregnant women who had delivered between March 27, 2020-January 24, 2021, 6 of whom had an active infection. The median maternal age was 35.5 years (IQR=31.0-38.8), and the median gestational age at delivery was 39.1 weeks (range=32.4-40.7). The median infection-to-delivery interval and infection duration were 41.5 days (range 2-187) and 10.0 days (range=1-48), respectively. 75% of women (n=15) were seropositive at delivery, of which 2 had an active infection, and 13 had recovered. 12/13 neonates born to COVID-19-recovered mothers were IgG positive. All neonatal nasopharyngeal samples were reported to be negative for SARS-CoV-2, and all cord sera tested negative for IgM. Amongst recovered women, the median IgG concentrations in cord and maternal sera were 360.5 ng/ml (IQR: 95.2-676.6) and 295.5 ng/ml (IQR: 74.8-632.8), respectively. The median transfer ratio was 1.3 (IQR: 0.9-1.6). There was a negative correlation between IgG concentrations in cord and maternal sera with the infection-to-delivery interval and a positive correlation between IgG concentrations in maternal sera with viral load area-under-curve (AUC), which was used to assess infectiousness and severity. There was also a significant correlation between transfer ratio with viral load AUC. This study demonstrated that in pregnant women who have recovered from COVID-19, the higher the viral load during infection and the shorter the infection-to-delivery interval, the higher the anti-SARS-CoV-2 IgG concentrations in maternal sera at delivery.	The authors conducted a prospective case-series study to investigate the association between SARS-CoV-2 viral load and infection-to-delivery interval in pregnant women with SARS-CoV-2 infection in China. 12/13 neonates born to COVID-19-recovered mothers were IgG positive, and all neonatal nasopharyngeal samples were negative for SARS-CoV-2. This study demonstrated that in pregnant women who have recovered from COVID-19, the higher the viral load during infection and the shorter the infection-to-delivery interval, the higher the anti-SARS-CoV-2 IgG concentrations in maternal sera at delivery.	Poon LC, Leung BW, Ma T, et al. Relationship between viral load, infection-to-delivery interval and mother-to-child transfer of anti-SARS-CoV-2 antibodies. Ultrasound Obstet Gynecol. 2021 Apr 2. doi: 10.1002/uog.23639. Epub. PMID: 33798280.
COVID-19, Immunity, Neonates, Pregnancy, SARS-CoV-2, Vertical transmission	2-Apr-21	<a href="#">A Systematic Review of Pregnant Women with COVID-19 and Their Neonates</a>	Archives of Gynecology and Obstetrics	Systematic Review	This is a systematic review of 37 published studies concerning pregnant women with confirmed SARS-CoV-2 and their neonates. Multiple databases were searched including PubMed, Web of Science, Google Scholar and WHO COVID-19 database. The outcomes of interest consisted of clinical manifestations in pregnant patients with SARS-CoV-2 infections, and also the effect of SARS-CoV-2 on neonatal and pregnancy outcomes. The results included 365 pregnant women with SARS-CoV-2 and 302 neonates. The vast majority of pregnant patients were in their third trimester of pregnancy, with only 45 cases in the first or second trimester (12.4%). Most mothers described mild to moderate manifestations of SARS-CoV-2. The most common symptoms were fever (62.4%) and cough (45.3%). 22 (6.0%) pregnant patients developed severe pneumonia. 2 maternal deaths occurred from severe pneumonia and multiple organ dysfunction. 65 (23.6%) neonates were born preterm. One infant was born dead from a mother who also died from SARS-CoV-2. Of the infants born alive from mothers with SARS-CoV-2, 5 newborns were in critical condition, and 2 later	This is a systematic review of 37 published studies aimed to assess clinical manifestations in pregnant patients with SARS-CoV-2 infections, and also the effect of SARS-CoV-2 on neonatal and pregnancy outcomes. The systematic review confirms that the course of SARS-CoV-2 in pregnant women resembles that of other populations. However, there is insufficient evidence to confirm that SARS-CoV-2 would not complicate pregnancy.	Mirbeyk M, Saghadzadeh A, Rezaei N. A systematic review of pregnant women with COVID-19 and their neonates [published online ahead of print, 2021 Apr 2]. Arch Gynecol Obstet. 2021. doi:10.1007/s00404-021-06049-z

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					died. A total of 219 neonates underwent nasopharyngeal specimen collection for SARS-CoV-2, of which 11 tested positive (5%). In conclusion, this systematic review confirms that the course of SARS-CoV-2 in pregnant women resembles that of other populations. However, there is insufficient evidence to confirm that SARS-CoV-2 would not complicate pregnancy.		
COVID-19; perinatal care; workforce resilience	1-Apr-21	<a href="#">Cultivating Resilience Among Perinatal Care Providers During the Covid-19 Pandemic [Free Access to Abstract Only]</a>	The Journal of Perinatal and Neonatal Nursing	Commentary	This scoping review examined the literature to identify evidence-based models of resilience building in a cohort of perinatal clinicians. Research published between January 2015-2020 was evaluated using the PubMed, CINAHL, EMBASE, and PsycINFO databases. Of 3399 records reviewed, 2 qualitative studies met the inclusion criteria. One study based in the United Kingdom evaluated the effects of a mindfulness training course in a cohort of 46 midwives. Participants enrolled in a course designed for midwives who experience stressful work situations but lack a clinical diagnosis of stress or depression. The course involved 60-90 minutes of participation per week for 8 weeks, followed by a post-course evaluation and 4-6-month follow-up survey. The results showed that 97% of participants indicated that the course was helpful. Most participants reported improvements in levels of stress, anxiety, resilience, self-compassion, and mindfulness. The second study based in the United States evaluated the effectiveness of a Web-based program aimed at stress reduction and improved coping among certified nurse-midwives. 10 midwives participated in a 4-week asynchronous stress-reduction intervention using yoga, meditation, and mindfulness. Participants completed the Perceived Stress Scale and the Coping Self-Efficacy Scale pre-and post-intervention. The results showed that participants reported improvements in stress and coping. Similar courses may be helpful for cultivating resilience among perinatal care providers during the COVID-19 pandemic. Given the deleterious effects of Covid-19 on perinatal care providers, and in light of the paucity of available studies, personnel, time, and funding should be allocated for research to address these issues.	This scoping review examined the literature to identify evidence-based models of resilience building in a cohort of perinatal clinicians. Participants from 2 studies reported improvements in stress, anxiety, and resilience, after participating in mindfulness training and stress-reduction interventions. Similar courses may be helpful for cultivating resilience among perinatal care providers during the COVID-19 pandemic.	Wright EM, Carson AM, Kriebs J. Cultivating Resilience Among Perinatal Care Providers During the Covid-19 Pandemic. J Perinat Neonatal Nurs. 2021;35(2):105-109. doi:10.1097/JPN.0000000000000558.
COVID-1; school transmission; pediatric SARS-CoV-2	1-Apr-21	<a href="#">Comparison of COVID-19 Incidence Rates Before and After School Reopening in Israel</a>	Journal of the American Medical Association (JAMA) Network Open	Research Letter	The authors examined infection rates in children aged 0-19 years compared to other age groups in Israel, assessing whether school re-opening was associated with SARS-CoV-2 infection in children aged 0-9 years. Data from SARS-CoV-2 positive children aged 0-9 years (n=47,620), youth aged 10-19 years (n= 101,304), adults aged 20-39 years (n=151,295), adults aged 40-59 years (n=103,056) and adults aged 60+ years (n=63,438) were obtained from the Ministry of Health for the months September (school closure) and November-December 2020 (school re-opening). They noted that the change in adjusted incidence rates from September 2020 to November 2020 was lowest in children aged 0-9 years (slope: 26.3; 95% CI: 26.1-26.5). The slopes of weekly adjusted incidence curves were 65.5 (95% CI, 31.6-99.2) for ages 10 to 19 years, 88.4 (95% CI,	The authors noted that changes in incidence rates and positivity rate ratios were the lowest in children aged 0-9 years (p<0.001), as were the change in the weekly adjusted incidence of SARS-CoV-2 cases. Hence, they cited that their findings supported findings of the low transmissibility of SARS-CoV-2 in this age group, and low amounts of SARS-CoV-	Somekh I, Boker LK, Shohat T, et al. Comparison of COVID-19 Incidence Rates Before and After School Reopening in Israel. JAMA Netw Open. 2021;4(4):e217105. Published 2021 Apr 1. doi:10.1001/jamanetworkopen.2021.7105

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					63.5-113.2) for ages 20 to 39 years, 92.6 (95% CI, 74.5-110.6) for ages 40 to 59 years, and 64.7 (95% CI, 52.8-76.5) for ages 60 years and older. The incidence rate ratios and positivity rate ratios were also significantly lower (p<0.001) in children aged 0-9 years during September and November-December periods. Hence, the authors concluded that children in the 0-9 years age group did not have substantial rates of SARS-CoV-2 infection during school attendance, supporting the lower infection rates and transmission potential in this age group.	2 infection during school attendance.	
COVID-19; pediatric; facial nerve palsy; magnetic resonance imaging; neuritis; neuroradiology; United States	1-Apr-21	<a href="#">COVID-19 as a Rare Cause of Facial Nerve Neuritis in a Pediatric Patient</a>	Radiology Case Reports	Case Report	The authors presented the case of a pediatric patient in the United States with a rare facial nerve neuritis and SARS-CoV-2 infection [date not specified]. The 23-month-old previously healthy female presented to the emergency room with a new-onset facial droop, first observed 3 days prior. She tested positive for SARS-CoV-2 PCR but was otherwise asymptomatic. Brain MRI with and without contrast revealed abnormal enhancement along the canalicular segment of the right cranial nerve VII extending to the first genu, suggestive of cranial nerve neuritis. The patient was given a 10-day steroid course with a short taper for treatment. At a well-child visit approximately 2 months after her admission, the patient's facial palsy had fully resolved. Given that this case involved a pediatric patient with no significant comorbidities presenting with facial droop, COVID-19 should be considered in the differential diagnoses when evaluating causes of new-onset peripheral nerve palsies.	The authors presented the case of a pediatric patient in the United States with a rare facial nerve neuritis and SARS-CoV-2 infection. The patient was given a 10-day steroid course with a short taper for treatment, and had fully recovered 2 months later. Given that this case involved a pediatric patient with no significant comorbidities presenting with facial droop, COVID-19 should be considered in the differential diagnoses when evaluating causes of new-onset peripheral nerve palsies.	Zain S, Petropoulou K, Mirchia K, et al. COVID-19 as a rare cause of facial nerve neuritis in a pediatric patient. <i>Radiol Case Rep.</i> 2021;16(6):1400-1404. doi:10.1016/j.radcr.2021.03.063.
COVID-19; Pandemics; Pregnant; Self-efficacy	1-Apr-21	<a href="#">Information Needs of Pregnant Women in the COVID-19 Pandemic from Experts' Point of View: A Qualitative Study</a>	International Journal of Community Based Nursing and Midwifery	Original Article	This study aims to identify the information needs of pregnant women during the COVID-19 pandemic in Iran. The research team conducted a qualitative assessment to identify the views of 19 experts (mean years of experience = 18.7 years, range 7-35 years) working in the field of obstetric and midwifery services in Isfahan, Iran from April - June 2020. The results showed that the information needs of pregnant women during the COVID-19 pandemic should be set in 4 areas, including 1) Self-efficacy of pregnant women, 2) Information that provokes sensitivity to preventive measures, 3) Awareness of the perceived threat (risk of SARS-CoV-2 transmission), and 4) Awareness of the health system functions in COVID-19 pandemic. The study shows that the self-efficacy of pregnant women depends deeply on being informed of general and specific self-care principles. Additionally, sensitivity could be achieved through the increased risk perception and knowledge on the pandemic. However, pregnant mothers should know the potential threats that could pose risk of vulnerability. While the authors caution mothers to avoid skin contact in the case of maternal SARS-CoV-2 infection, they also state that no risk of transmission via breast milk has been demonstrated. Finally,	This study aims to identify the information needs of pregnant women during the COVID-19 pandemic in Iran. The authors conclude that the information needs of pregnant women during the COVID-19 pandemic should be set in 4 areas, including self-efficacy, preventive measures, awareness of the risk of SARS-CoV-2 transmission, and awareness of the health system functions in COVID-19 pandemic.	Rezaei F, Masaeli Z, Atighechian G. Information Needs of Pregnant Women in the COVID-19 Pandemic from Experts' Point of View: A Qualitative Study. <i>Int J Community Based Nurs Midwifery.</i> 2021;9(2):139-151. doi:10.30476/IJCBNM.2021.87447.1432

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					awareness of the health system functions regarding access to reliable information resources along with provided services at Medical University websites is also recommended.		
COVID-19; neonatal outcomes; United States	1-Apr-21	<a href="#">Association of Maternal Perinatal SARS-CoV-2 Infection With Neonatal Outcomes During the COVID-19 Pandemic in Massachusetts</a>	Journal of the American Medical Association (JAMA) Network Open	Original Research	This multicenter cohort study in Massachusetts, United States, ascertained the percentage of neonates who were born to mothers with positive SARS-CoV-2 test results during the birth hospitalization (within 14 days before to 72 hrs after delivery), the clinical and sociodemographic factors associated with neonatal test result positivity, and the clinical and virological outcomes for neonates during hospitalization and 30 days after discharge. 255 neonates (mean gestational age at birth=37.9 ± 2.6 weeks) born to 250 mothers (mean age=30.4 ± 6.3 yrs; 48.4% Hispanic; 68% asymptomatic) with positive SARS-CoV-2 test results were identified. 24.3% of neonates were delivered either at low birth weight or preterm. Furthermore, 19.2% required resuscitation at birth, 34.5% were separated from their mothers, and 59.6% were directly breastfed. Only 5 (2.2%) of 225 neonates tested for SARS-CoV-2 had positive results. A high maternal social vulnerability was associated with a higher likelihood of neonatal test result positivity (adjusted OR=4.95; 95% CI 1.53-16.01; p=0.008), adjusted for maternal COVID-19 symptoms, delivery mode, and rooming-in practice. Adverse neonatal outcomes during hospitalization (preterm or low birth weight, very preterm or very low birth weight, delivery room resuscitation, CPAP or mechanical ventilation, and length of stay) were associated with preterm delivery indicated by worsening maternal COVID-19 symptoms (p<0.001 for all). Of the 151 neonates with follow-up data, 28 had non-routine clinical visits, 7 underwent SARS-CoV-2 testing, and 1 had a positive result. These findings emphasize the importance of both biological and social factors in perinatal SARS-CoV-2 infection outcomes. Newborns exposed to SARS-CoV-2 were at risk for both direct and indirect adverse health outcomes, supporting efforts of ongoing surveillance of the virus and long-term follow-up.	The authors ascertained the percentage of neonates who were born to mothers with positive SARS-CoV-2 test results during the birth hospitalization, the clinical and sociodemographic factors associated with neonatal test result positivity, and the clinical and virological outcomes for neonates during hospitalization and 30 days after discharge. The findings emphasize the importance of both biological and social factors in perinatal SARS-CoV-2 infection outcomes. Newborns exposed to SARS-CoV-2 were at risk for both direct and indirect adverse health outcomes, supporting efforts of ongoing surveillance of the virus and long-term follow-up.	Angelidou A, Sullivan K, Melvin PR, et al. Association of Maternal Perinatal SARS-CoV-2 Infection With Neonatal Outcomes During the COVID-19 Pandemic in Massachusetts. JAMA Netw Open. 2021;4(4):e217523. doi:10.1001/jamanetworkopen.2021.7523.
COVID-19; type 1 diabetes; pediatric; diabetic ketoacidosis	1-Apr-21	<a href="#">The Impact of COVID-19 Pandemic Lockdown on the Incidence of New-Onset Type 1 Diabetes and Ketoacidosis Among Saudi Children</a>	Frontiers in Endocrinology	Original Research	The authors conducted a retrospective multicenter cohort study in 6 pediatric diabetes centers in Saudi Arabia to assess the frequency of new-onset type 1 diabetes mellitus (T1DM) or diabetic ketoacidosis (DKA). They included children (aged 1-14 years) admitted with new-onset (T1DM) or (DKA) between March 1-June 30, 2020, compared to pediatric admissions during the same period in 2019. The median age was 9.8 ± 0.2 years, 46.2% (n=120) male, and 95.4% Saudi Arabian (n=240). Among 162 children with known T1DM, the mean diabetes duration was 4.8 ± 0.8 years. The mean HbA1c level was higher in 2020 than 2019 (mean difference: -0.7 ± 0.3%, p=0.13) and HbA1c levels at diagnosis were significantly higher in 2020 than 2019 (12.1 ± 0.2 vs. 10.8 ± 0.25; p<0.001). 112 of 154 patients and 88 of 106 patients with T1DM were admitted due to DKA in 2019 and 2020, respectively. The	The authors conducted a retrospective multicenter cohort study in 6 pediatric diabetes centers in Saudi Arabia to assess the frequency of new-onset type 1 diabetes mellitus (T1DM) or diabetic ketoacidosis (DKA). Findings showed that DKA was higher in 2020 than in 2019 (83% vs. 73%; P=0.05) after adjusting for age and sex. DKA frequency among new-onset T1DM and HbA1c levels at diagnosis were	Alaqaee A, Aljuraibah F, Alsuhaibani M, et al. The Impact of COVID-19 Pandemic Lockdown on the Incidence of New-Onset Type 1 Diabetes and Ketoacidosis Among Saudi Children. Front Endocrinol (Lausanne). 2021;12:669302. Published 2021 Apr 1. doi:10.3389/fendo.2021.669302

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					proportion of DKA amongst new-onset T1DM was significantly higher in 2020 than in 2019 (26% vs. 13.4%, p<0.001). The authors noted that admissions for new-onset T1DMs were similar in both years, while admission due to DKA incidence was higher in newly diagnosed T1DM in 2020 than in 2019 when adjusted for age and sex (adjusted RR= 1.15; 95% CI: 1.04-1.26). The authors concluded that the lockdown implemented in Saudi Arabia significantly impacted children with T1DM and led to an increased DKA frequency, including children with new-onset T1DM, potentially owing to delayed presentation. They recommended increasing awareness regarding T1DM symptoms to the public and utilization of telemedicine to fill the gaps in an overburdened healthcare system.	higher in 2020 than in 2019. The authors concluded that the lockdown implemented in Saudi Arabia significantly impacted children with T1DM and led to an increased DKA frequency, including children with new-onset T1DM, potentially owing to delayed presentation.	
COVID-19; perinatal care; workforce resilience	1-Apr-21	<a href="#">Cultivating Resilience Among Perinatal Care Providers During the Covid-19 Pandemic [Free Access to Abstract Only]</a>	The Journal of Perinatal and Neonatal Nursing	Commentary	This scoping review examined the literature to identify evidence-based models of resilience building in a cohort of perinatal clinicians. Research published between January 2015-2020 was evaluated using the PubMed, CINAHL, EMBASE, and PsycINFO databases. Of 3399 records reviewed, 2 qualitative studies met the inclusion criteria. One study based in the United Kingdom evaluated the effects of a mindfulness training course in a cohort of 46 midwives. Participants enrolled in a course designed for midwives who experience stressful work situations but lack a clinical diagnosis of stress or depression. The course involved 60-90 minutes of participation per week for 8 weeks, followed by a post-course evaluation and 4-6-month follow-up survey. The results showed that 97% of participants indicated that the course was helpful. Most participants reported improvements in levels of stress, anxiety, resilience, self-compassion, and mindfulness. The second study based in the United States evaluated the effectiveness of a Web-based program aimed at stress reduction and improved coping among certified nurse-midwives. 10 midwives participated in a 4-week asynchronous stress-reduction intervention using yoga, meditation, and mindfulness. Participants completed the Perceived Stress Scale and the Coping Self-Efficacy Scale pre-and post-intervention. The results showed that participants reported improvements in stress and coping. Similar courses may be helpful for cultivating resilience among perinatal care providers during the COVID-19 pandemic. Given the deleterious effects of Covid-19 on perinatal care providers, and in light of the paucity of available studies, personnel, time, and funding should be allocated for research to address these issues.	This scoping review examined the literature to identify evidence-based models of resilience building in a cohort of perinatal clinicians. Participants from 2 studies reported improvements in stress, anxiety, and resilience, after participating in mindfulness training and stress-reduction interventions. Similar courses may be helpful for cultivating resilience among perinatal care providers during the COVID-19 pandemic.	Wright EM, Carson AM, Kriebs J. Cultivating Resilience Among Perinatal Care Providers During the Covid-19 Pandemic. J Perinat Neonatal Nurs. 2021;35(2):105-109. doi:10.1097/JPN.0000000000000558.
COVID-1; school transmission; pediatric SARS-CoV-2	1-Apr-21	<a href="#">Comparison of COVID-19 Incidence Rates Before and After School Reopening in Israel</a>	Journal of the American Medical Association (JAMA) Network Open	Research Letter	The authors examined infection rates in children aged 0-19 years compared to other age groups in Israel, assessing whether school re-opening was associated with SARS-CoV-2 infection in children aged 0-9 years. Data from SARS-CoV-2 positive children aged 0-9 years (n=47,620), youth aged 10-19 years (n= 101,304), adults aged 20-39 years (n=151,295), adults aged 40-59 years (n=103,056) and	The authors noted that changes in incidence rates and positivity rate ratios were the lowest in children aged 0-9 years (p<0.001), as were the change in the weekly adjusted	Somekh I, Boker LK, Shohat T, et al. Comparison of COVID-19 Incidence Rates Before and After School Reopening in Israel. JAMA Netw Open. 2021;4(4):e217105. Published

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					adults aged 60+ years (n=63,438) were obtained from the Ministry of Health for the months September (school closure) and November-December 2020 (school re-opening). They noted that the change in adjusted incidence rates from September 2020 to November 2020 was lowest in children aged 0-9 years (slope: 26.3; 95% CI: 26.1-26.5). The slopes of weekly adjusted incidence curves were 65.5 (95% CI, 31.6-99.2) for ages 10 to 19 years, 88.4 (95% CI, 63.5-113.2) for ages 20 to 39 years, 92.6 (95% CI, 74.5-110.6) for ages 40 to 59 years, and 64.7 (95% CI, 52.8-76.5) for ages 60 years and older. The incidence rate ratios and positivity rate ratios were also significantly lower (p<0.001) in children aged 0-9 years during September and November-December periods. Hence, the authors concluded that children in the 0-9 years age group did not have substantial rates of SARS-CoV-2 infection during school attendance, supporting the lower infection rates and transmission potential in this age group.	incidence of SARS-CoV-2 cases. Hence, they cited that their findings supported findings of the low transmissibility of SARS-CoV-2 in this age group, and low amounts of SARS-CoV-2 infection during school attendance.	2021 Apr 1. doi:10.1001/jamanetworkopen.2021.7105
COVID-19 transmission; simulated population; SARS-CoV-2; silent infections, vaccination	1-Apr-21	<a href="#">Simulated Identification of Silent COVID-19 Infections Among Children and Estimated Future Infection Rates With Vaccination</a>	Journal of the American Medical Association (JAMA) Network Open	Original Research	The authors aimed to estimate the benefits of identifying silent infections among children as a proxy for their vaccination. They used an age-structured disease transmission model, parameterized with census data and estimates from published literature, to simulate the estimated synergistic effect of interventions in reducing attack rates during 1 year among a synthetic population representative of the U.S. demographic composition. The population included six age groups of 0 to 4, 5 to 10, 11 to 18, 19 to 49, 50 to 64, and 65 years or older based on U.S. census data, and data were analyzed from December 12, 2020, to February 26, 2021. The results showed that in the base-case scenarios with an effective reproduction number $Re = 1.2$ , a targeted approach that identifies 11% of silent infections among children within 2 days and 14% within 3 days after infection would bring attack rates to less than 5% with 40% vaccination coverage of adults. If silent infections among children remained undetected, achieving the same attack rates would require an unrealistically high vaccination coverage ( $\geq 81\%$ ) of this age group, in addition to 40% vaccination coverage of adults. Expanding adult vaccine coverage (from 40% to 60%) was associated with a decrease in the minimum identification levels (from 11% to 5% with a 2-day delay, and 14% to 6% with a 3-day delay). They also found that reducing children's (age <10 years) susceptibility by half and increasing adult vaccinations resulted in less contact tracing required to control COVID-19. These findings suggest that rapid identification of silent infections among children may achieve comparable effects as would their vaccination.	The authors conducted a simulation modeling study to estimate the benefits of identifying silent infections among children as a proxy for their vaccination in the United States. Findings showed that identifying 10% to 20% of silent infections among children within 3 days after infection would bring attack rates below 5% if only adults were vaccinated. If silent infections among children remained undetected, achieving the same attack rate would require an unrealistically high vaccination coverage ( $\geq 81\%$ ) of this age group, in addition to vaccination of adults. These findings suggest that rapid identification of silent infections among children may achieve comparable effects as would their vaccination.	Moghadas SM, Fitzpatrick MC, Shoukat A, Zhang K, Galvani AP. Simulated Identification of Silent COVID-19 Infections Among Children and Estimated Future Infection Rates With Vaccination. <i>JAMA Netw Open.</i> 2021;4(4):e217097. Published 2021 Apr 1. doi:10.1001/jamanetworkopen.2021.7097
testing; COVID-19; schools; children	1-Apr-21	<a href="#">On the Value of COVID-19 Testing for Children</a>	Journal of the American Medical Association	Commentary	In this commentary, the authors discuss the importance of school-based SARS-CoV-2 testing in 2021, drawing from the results of a recent simulation analysis from the United States by Moghadas, et al. The simulation analysis found that detecting only 10-20% of	The authors comment on the usefulness of school-based testing for SARS-CoV-2 among students, teachers, and staff,	Rubin D, Coffin S. On the Value of COVID-19 Testing for Children Beyond the Spring of 2021. <i>JAMA Netw Open.</i>

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		<a href="#">Beyond the Spring of 2021</a>	(JAMA) Network Open		such infections in schoolchildren within 3 days after onset of infection may be enough to prevent widespread community transmission, assuming that a majority of adults are vaccinated in the area. The authors of the commentary note that school-based testing has been difficult and not perfectly adopted by many schoolchildren, teachers, and staff. Despite these difficulties, however, the results from Moghadas, et al. demonstrate that school-based testing should still be pursued, as viral reduction on the margins of the tested population can be extremely valuable, especially as vaccine coverage grows in the broader community. The authors also emphasize that a strong school-based testing program both assures the community that schools can be safe, and achieves a modest viral reduction by identifying potentially contagious individuals early, thereby preventing in-school exposures. Since most elementary school-aged children in the US will likely be ineligible for COVID-19 vaccines until 2022, school-based testing thus remains a powerful way to prevent SARS-CoV-2 transmission and COVID-19 cases, and should be adopted by all school districts in the US.	despite imperfect adherence, based on the results of a recent simulation analysis from the United States by Moghadas, et al. The authors state that a strong school-based testing program, in the setting of a largely vaccinated community, can assuage concerns about safety and reduce viral transmission by reducing in-school exposures, and should be pursued in all US school districts.	2021;4(4):e217850. Published 2021 Apr 1. doi:10.1001/jamanetworkopen.2021.7850
COVID-19 pandemic, Adjustment, Children, Seizures, Distance learning, self-management	1-Apr-21	<a href="#">The psychosocial impact of COVID-19 within the first six months of the pandemic on youth with epilepsy and their caregivers</a>	Epilepsy and Behavior	Article	This study assesses the impact of COVID-19 on children with epilepsy and their families within the first 6 months of the pandemic. Group differences in COVID-19 impact on families were also examined based on race and ethnicity, being medically and/or geographically underserved, and insurance status. 131 children (mean age 10.5 years, range 2-17 years, SD 4.4 years; 53% male) with epilepsy and their families from 2 clinical trials were included. The Impact of COVID-19 on Pediatric Epilepsy Management measure was developed, using a Likert scale (1= Not at all to 5= A lot), and administered to caregivers online from April – September 2020 across 4 pediatric hospitals in the US. Data indicate minor impact of COVID-19 on pediatric epilepsy management (1.08 – 1.43 out of 5). Caregivers of children with epilepsy reported the most impact on education (3.56 out of 5) and social functioning (3.85 out of 5). Adherence to CDC guidelines was reported to be high (>4 out of 5). Those having public insurance reported significantly greater difficulties obtaining daily anti-seizure medications compared to those with private insurance (p<0.001). The authors assert this study presents important initial data regarding the impact of COVID-19 epilepsy management and daily functioning in children with epilepsy and their families. While the acute impact of COVID-19 restrictions appears to be mild to moderate, it is unclear what the long-term impact of the pandemic will be on families of children with epilepsy.	This study assesses the impact of COVID-19 on children with epilepsy and their families within the first 6 months of the pandemic. While the acute impact of COVID-19 restrictions appears to be mild to moderate, it is unclear what the long-term impact of the pandemic will be on families of children with epilepsy.	Modi AC, Patel AD, Stevens J, et al. The psychosocial impact of COVID-19 within the first six months of the pandemic on youth with epilepsy and their caregivers. <i>Epilepsy Behav.</i> 2021;117:107855. doi:10.1016/j.yebeh.2021.107855
Prenatal care, virtual visits, telemedicine, perinatal	1-Apr-21	<a href="#">Comparison Between In-Person and Audio-Only Virtual</a>	Journal of the American Medical Association	Original Research	In this cohort study conducted at Parkland Health and Hospital System in Texas, USA, the authors compared perinatal outcomes of women who delivered between May 1-October 31, 2019 (n = 6559) and received in-person prenatal visits only, with those who	In this cohort study, the authors compared perinatal outcomes of women who delivered before the COVID-19	Duryea EL, Adhikari EH, Ambia A, Spong C, McIntire D, Nelson DB. Comparison Between In-Person and Audio-Only Virtual

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outcomes, attendance, infant		<a href="#">Prenatal Visits and Perinatal Outcomes</a>	(JAMA) Open Network		delivered between May 1-October 31, 2020 (during the COVID-19 pandemic, n = 6048), when audio-only virtual visits were integrated into prenatal care. The primary outcome was a composite of placental abruption, stillbirth, neonatal ICU admission in a full-term (≥37 weeks) infant, and umbilical cord blood pH < 7.0. Mean (SD) age of women who delivered in 2019 was 27.8 (6.4) years, and mean age of women who delivered in 2020 was 27.7 (6.5) years (p = 0.38). In the 2020 cohort, 4067 women (67.2%) attended at least 1 audio-only virtual prenatal visit. Women who delivered in 2020 attended a greater number of prenatal visits compared with women who delivered in 2019 (9.8 [3.4] vs 9.4 [3.8] visits; p < 0.001). In the 2020 cohort, 173 women (2.9%) experienced the composite outcome, which was not significantly different than the 195 women (3.0%) in 2019 (p = 0.71). The authors conclude that implementation of audio-only virtual prenatal visits was not associated with changes in perinatal outcomes but was associated with increased prenatal visit attendance during the COVID-19 pandemic.	pandemic and received in-person prenatal visits only, to those who gave birth during the COVID-19 pandemic when audio-only virtual visits were integrated into prenatal care in Texas, USA. Women who gave birth during the pandemic did not have an increased risk of the adverse perinatal outcomes assessed and had increased prenatal visit attendance. The authors conclude that implementation of audio-only virtual prenatal visits was not associated with changes in perinatal outcomes.	Prenatal Visits and Perinatal Outcomes. JAMA Netw Open. 2021;4(4):e215854. doi:10.1001/jamanetworkopen.2021.5854
seroprevalence; SARS-CoV-2; coronaviruses; antibody; prior infection	1-Apr-21	<a href="#">Prior infection by seasonal coronaviruses, as assessed by serology, does not prevent SARS-CoV-2 infection and disease in children, France, April to June 2020</a>	Eurosurveillance	Original Research	The authors aimed to determine whether prior infections by seasonal coronaviruses (HCoV) NL63, HKU1, 229E, or OC43 as assessed by serology provide cross-protective immunity against SARS-CoV-2 infection in children. They conducted a cross-sectional observational multicentric study in pauci- or asymptomatic children hospitalized in Paris during the first wave of the pandemic for reasons other than COVID-19 (hospitalized children (HOS), n=739), plus children presenting with MIS-C (n=36). They randomly selected 69 SARS-CoV-2-seropositive patients (including 15 with MIS) and 115 matched SARS-CoV-2-seronegative patients (controls (CTL)). Antibodies against SARS-CoV-2 and HCoV were measured as evidence for prior corresponding infections. The authors assessed if the SARS-CoV-2 prevalence of infection and levels of antibody responses were shaped by prior seasonal coronavirus infections. The mean ages (SD) of participants in the HOS, MIS-C, and CTL groups were 9.8 (5.5), 8.6 (3.4), and 9.6 (5.2) years, respectively. The results showed that the prevalence of HCoV infections was similar in HOS, MIS-C, and CTL groups (>80%). Antibody levels against HCoV were not significantly different in the three groups (p>0.05 for each) and were not related to the level of SARS-CoV-2 antibodies in the HOS and MIS-C groups (p>0.05 for each). SARS-CoV-2 antibody profiles were different between HOS and MIS-C children in that MIS-C children had a higher prevalence of SARS-CoV-2 antibodies than HOS children (87% vs. 52%, p=0.02). The authors concluded that prior infection by seasonal coronaviruses, as assessed by serology, does not interfere with SARS-CoV-2 infection and related MIS-C in children, pointing to the limits of herd immunity applied to seasonal coronaviruses.	This study examined whether prior infections by seasonal coronaviruses (HCoV) assessed by serology provide cross-protective immunity against SARS-CoV-2 infection in children in France. HCoV infection prevalence was similar in the study groups, but antibody levels against HCoV were not related to the level of SARS-CoV-2 antibodies in the hospitalized and MIS-C groups. The authors concluded that prior infection by seasonal coronaviruses, as assessed by serology, does not interfere with SARS-CoV-2 infection and related MIS-C in children, pointing to the limits of herd immunity applied to seasonal coronaviruses.	Sermet-Gaudelus I, Temmam S, Huon C, et al. Prior infection by seasonal coronaviruses, as assessed by serology, does not prevent SARS-CoV-2 infection and disease in children, France, April to June 2020. <i>Euro Surveill</i> . 2021;26(13):2001782. doi:10.2807/1560-7917.ES.2021.26.13.2001782

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Obstetric; gynecologic; emergency visits; COVID-19	1-Apr-21	<a href="#">Coronavirus Disease 2019 (COVID-19) and the incidence of obstetric and gynecologic emergency department visits in an integrated health care system</a>  <a href="#">[Free Access to Abstract Only]</a>	Obstetrics and Gynecology	Research Letter	The authors reviewed clinical characteristics and incidence rates of female patients ≥18 years who presented to a US emergency department (ED) for obstetric (OB) or gynecological (GYN) concerns in the pre-pandemic period (January 1-March 3, 2020), early pandemic (March 4-May 19, 2020) and late pandemic (May 20- September 1, 2020) periods. Incidence rates (per 100,000 person-weeks) for all OB and GYN patients presenting to the ED pre-pandemic was 42.2 (95% CI 41.2-43.2), the early pandemic was 24.5 (95% CI 23.8-25.2), and late pandemic was 34.5 (95% CI 33.8-35.2). This represented a 42% decrease in ED use for OB and GYN emergencies from pre- to the early-pandemic (IRR 0.58, 95% CI 0.56-0.60; p<0.001). The decrease between pre- and late-pandemic periods was less pronounced at 18% but still significant (IRR 0.82, 95% CI 0.79- 0.84; p<0.001). The authors stress that the significant decrease in OB and GYN ED visits highlights the need to provide access to safe care for pregnant women during emergencies, including updating disaster-response plans to include OB/GYN care.	The authors reviewed clinical characteristics and incidence rates of patients presenting to a US emergency department (ED) for obstetric (OB) or gynecological (GYN) concerns in pre-pandemic, early pandemic, and late pandemic periods. Results showed a 42% decrease in ED use for OB and GYN emergencies in the early-pandemic period, highlighting the need to support safe OB/GYN care.	Abel MK, Alavi MX, Tierney C, Weintraub MR, Avins A, Zaritsky E. Coronavirus Disease 2019 (COVID-19) and the Incidence of Obstetric and Gynecologic Emergency Department Visits in an Integrated Health Care System. <i>Obstet Gynecol.</i> 2021;137(4):581-583. doi:10.1097/AOG.0000000000004331
Multisystem inflammatory syndrome in children (MIS-C), SARS-CoV-2, Bacterial enteritis, Children	1-Apr-21	<a href="#">Mistaken MIS-C: A Case Series of Bacterial Enteritis Mimicking MIS-C</a>	The Pediatric Infectious Disease Journal	Brief Report	The authors of this case series present 5 pediatric cases who presented to hospitals in San Diego, California, and Boston, Massachusetts (USA), with fever, gastro-intestinal symptoms, and elevated inflammatory markers, concerning for MIS-C, but who were ultimately found to have bacterial enteritis. All patients presented with tachycardia, which resolved with fluid resuscitation. None of the patients had elevated cardiac enzymes, which has been noted in most MIS-C patients with myocardial dysfunction. Thus, none of the patients ultimately had true multi-system organ involvement, which is usually seen in MIS-C cases. Only one of the patients had a clear, recent SARS-CoV-2 exposure; however, the presence of SARS-CoV-2 antibodies was noted in 3 of the patients. All 5 patients had neutrophilia and variably elevated inflammatory markers and D-dimer levels. 2 of 3 patients also had elevated immature neutrophils (not reported in the other 2). However, elevation of these markers is non-specific and overlaps with other infectious and inflammatory diseases. Only 1 of the 5 patients had ferritin levels >200ng/mL, which may help to distinguish MIS-C from other infectious etiologies of fever. The authors concluded that, despite the increasing prevalence of SARS-CoV-2 in the US, MIS-C remains rare. Due to non-specific features of the current MIS-C case definition, many children initially appear to meet the criteria. However, it is important to note that severe illness and death have occurred from MIS-C, and thus a delay in diagnosis may have significant consequences.	The authors of this case series present 5 pediatric cases who presented to hospitals in the US with fever, gastro-intestinal symptoms, and elevated inflammatory markers, concerning for MIS-C, but who were ultimately found to have bacterial enteritis. The authors concluded that, despite the increasing prevalence of SARS-CoV-2 in the US, MIS-C remains rare. Due to non-specific features of the current MIS-C case definition, many children initially appear to meet the criteria. However, it is important to note that severe illness and death have occurred from MIS-C, and thus a delay in diagnosis may have significant consequences.	Dworsky ZD, Roberts JE, Son MBF, et al. Mistaken MIS-C: A Case Series of Bacterial Enteritis Mimicking MIS-C. <i>Pediatr Infect Dis J.</i> 2021;40(4):e159-e161. doi:10.1097/INF.0000000000003050
Serious bacterial infection, co-infection,	1-Apr-21	<a href="#">Risk of Serious Bacterial Infections in Young Febrile</a>	Pediatric Emergency Care	Original Research	This retrospective cohort study investigated the prevalence of serious bacterial infections (SBIs) in 53 infants (0-89 days of age) with SARS-CoV-2 infections and compared the risk of SBI to 53 sex- and-age-matched febrile infants without SARS-CoV-2. The study	In this retrospective study, the authors compared the risk of serious bacterial infection (SBI) between 53 infants (0-89 days	Payson A, Etinger V, Napky P, Montarroyos S, Ruiz-Castaneda A, Mestre M. Risk of Serious Bacterial Infections in

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infants, urinary tract infection		<a href="#">Infants With COVID-19</a>  <a href="#">[Free Access to Abstract Only]</a>			was conducted from March-November 2020 at a single tertiary hospital in Florida, USA. Infants in the 2 groups had similar clinical presentations (mean temperature of 101.0 F for cases vs 101.1 F for controls). Compared with controls, SARS-CoV-2-positive infants presented more frequently with respiratory symptoms (47% vs 23%; $p \leq 0.014$ ) and had lower median white blood cell counts (8.1 vs 11.6; $p < 0.0001$ ) and c-reactive protein values (0.50 vs 0.85; $p \leq 0.01$ ). More SARS-CoV-2-positive infants had chest radiographs performed (59%) compared with only 21% of negative controls ( $p \leq 0.0001$ ); however no infants were treated for clinical pneumonia. There was a significant difference in the rates of total SBI between the SARS-CoV-2-positive and negative groups (8% and 34%) with lower rates for the SARS-CoV-2 positive group, RR of 0.22 (95% CI, 0.08-0.57; $p \leq 0.001$ ). The most common infections were urinary tract infections (6% vs 23%, $p \leq 0.023$ ). The authors conclude that febrile infants younger than 90 days with COVID-19 have lower rates of SBI than their matched SARS-CoV-2-negative controls.	of age) with SARS-CoV-2 and 53 febrile infants without SARS-CoV-2. The SARS-CoV-2 negative group had significantly higher rates of SBI, especially urinary tract infections. The authors conclude that febrile infants younger than 90 days with COVID-19 have lower rates of SBI than their matched SARS-CoV-2-negative controls.	Young Febrile Infants With COVID-19. <i>Pediatr Emerg Care.</i> 2021;37(4):232-236. doi:10.1097/PEC.0000000000002380
Children, severe infection, hospitalization, comorbidity, age, pediatrics	1-Apr-21	<a href="#">Characteristics and Disease Severity of US Children and Adolescents Diagnosed With COVID-19</a>	Journal of the American Medical Association (JAMA) Network Open	Letter	In this letter, the authors describe their cohort study assessing associations between demographic and clinical characteristics and severe COVID-19 among hospitalized pediatric patients in the USA. Discharge data from 869 medical facilities were used to describe patients 0-18 years of age who had an inpatient or emergency department encounter with a COVID-19 discharge diagnosis from March 1-October 31, 2020. Severe COVID-19 was defined as care requiring treatment in an ICU or step-down unit, involving use of invasive mechanical ventilation, or resulting in death. Among 20,714 pediatric patients with COVID-19, 6,047 (29.2%) had $\geq 1$ chronic conditions. Among the cohort of 2,430 pediatric patients (11.7%) who were hospitalized, 756 (31.1%) experienced severe COVID-19. An increased association of severe COVID-19 was observed among patients with $\geq 1$ chronic conditions vs those with none (Adjusted Odds Ratio (AOR), 3.27; 95% CI, 2.44-4.37); in children aged 2-5 years or 6-11 years vs those aged 12-18 years (AORs, 1.53; 95% CI, 1.11-2.13 and 1.53; 95% CI, 1.04-2.23, respectively); and in male vs female patients (AOR, 1.52; 95% CI, 1.26-1.83). There was no statistically significant association between race/ethnicity or insurance type and severe COVID-19. The authors conclude that understanding factors associated with severe COVID-19 among children could help inform prevention and control strategies.	In this letter, the authors describe their study assessing associations between demographic and clinical characteristics and severe COVID-19 among hospitalized pediatric patients in the USA. They found an increased association of severe COVID-19 with patients with $\geq 1$ chronic conditions, those 2-5 or 6-11 years of age, and in male patients. The authors conclude that understanding factors associated with severe COVID-19 among children could help inform prevention and control strategies.	Preston LE, Chevinsky JR, Kompaniyets L, et al. Characteristics and Disease Severity of US Children and Adolescents Diagnosed With COVID-19. <i>JAMA Netw Open.</i> 2021;4(4):e215298. Published 2021 Apr 1. doi:10.1001/jamanetworkopen.2021.5298

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COVID-19, Public health, Social distancing, register study	1-Apr-21	<a href="#">The impact of the lockdown and the re-opening of schools and day cares on the epidemiology of SARS-CoV-2 and other respiratory infections in children - A nationwide register study in Finland</a>	Eclinical Medicine	Original Research	This study describes the effect of closures and re-openings on respiratory pathogen epidemiology in the pediatric population of Finland. The authors collected national weekly numbers of laboratory-confirmed positive SARS-CoV-2 findings in children aged 0 – 19 years and those of respiratory syncytial virus; influenza viruses (A & B); parainfluenza-, adeno-, and rhinoviruses; Mycoplasma pneumoniae; and Streptococcus pneumoniae in children aged 0 – 14 years over the period of 2017–2020. Weekly incidences (weeks 1 to 35) were calculated per 100 000 children in 2020 and compared by incidence rate ratios (IRRs) to corresponding periods in 2017–2019. The lockdown had immediate impact on the incidences of all respiratory pathogens except SARS-CoV-2. 1 week after the lockdown began, IRR was 0.3 (95% CI 0.3–0.4) and next week the IRR was 0.1 (95% CI 0.1–0.2) indicating a significant decrease in incidence of respiratory pathogens during lockdown. Rhinovirus and SARS-CoV-2 began to increase before the schools or day cares opened in August 2020. The re-opening of schools seemed to have no impact on the incidence of any pathogen. The re-opening of schools and day care centers seems to have had no immediate impact on the incidences of any respiratory pathogens. The authors conclude that lockdown measures were effective at mitigating the spread of respiratory infections and the role of day care centers and schools might be smaller than previously thought in the transmission of rhinovirus.	This study describes the effect of closures and re-openings on respiratory pathogen epidemiology in the pediatric population of Finland. The authors conclude that lockdown measures were effective at mitigating the spread of respiratory infections and the role of day care centers and schools might be smaller than previously thought in the transmission of rhinovirus.	Haapanen M, Renko M, Artama M, Kuitunen I. The impact of the lockdown and the re-opening of schools and day cares on the epidemiology of SARS-CoV-2 and other respiratory infections in children - A nationwide register study in Finland. <i>EclinicalMedicine</i> . 2021;34:100807. doi:10.1016/j.eclinm.2021.100807
Children, immunity, antibody, elderly	1-Apr-21	<a href="#">Systems serology detects functionally distinct coronavirus antibody features in children and elderly</a>	Nature Communications	Original Research	COVID-19-related morbidity and mortality is significantly higher in the elderly population. Here, the authors present an analysis of coronavirus antibody responses of pre-pandemic healthy children (n = 89), adults (n = 98), elderly (n = 57), and COVID-19 patients (n = 50) by serology. Patients were recruited from multiple hospitals in Australia [dates not provided]. The authors identified that 58/196 (29.6%) antibody features assessed were significantly different between the children and elderly age groups (all p < 0.00037). Most notably, children were characterized by elevated IgM Ab responses, while the antibody response in healthy elderly individuals was characterized predominantly by IgA and IgG antibodies, suggesting that children have less experienced but more polyreactive humoral immunity. Avidity of RBD-specific IgM from children and elderly was significantly weaker than COVID-19 patients (p = 0.0059 and p = 0.0006, respectively). SARS-CoV-2 antigen-specific Fcγ receptor binding accurately distinguished COVID-19 patients from healthy individuals, suggesting that SARS-CoV-2 infection induces qualitative changes to antibody Fc, enhancing Fcγ receptor engagement. Children's IgM responses spanned a higher range of avidities (median 60.88; IQR 49.37–79.8) as compared to the elderly (median 50.73; IQR 43.83–71.55), indicating that children may be able to mount a higher quality of antibody response. The authors conclude that these insights will	In this study, the authors analyzed coronavirus antibody responses of pre-pandemic healthy children, adults, elderly, and COVID-19 patients in Australia. They found that SARS-CoV-2 infection induces qualitative changes to antibody Fc, enhancing Fcγ receptor engagement. Higher cross-reactive SARS-CoV-2 IgA and IgG were observed in healthy elderly, while healthy children displayed elevated SARS-CoV-2 IgM, suggesting that children have less-experienced but more polyreactive humoral immunity. The authors conclude that these insights will inform COVID-19 vaccination strategies,	Selva KJ, van de Sandt CE, Lemke MM, et al. Systems serology detects functionally distinct coronavirus antibody features in children and elderly. <i>Nat Commun</i> . 2021;12(1):2037. Published 2021 Apr 1. doi:10.1038/s41467-021-22236-7

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					inform COVID-19 vaccination strategies, improved serological diagnostics and therapeutics.	improved serological diagnostics and therapeutics.	
SARS-CoV-2, COVID-19, Pediatric, Children, Kids, Kawasaki Disease	1-Apr-21	<a href="#">Assessment of Pediatric Admissions for Kawasaki Disease or Infectious Disease During the COVID-19 State of Emergency in Japan</a>	Journal of the American Medical Association (JAMA) Network Open	Original Investigation	The objective of this multicenter, longitudinal, cross-sectional study was to assess the role of droplet or contact transmission in the pathogenesis of Kawasaki disease (KD). The study was conducted from 2015 to 2020 at Fukuoka Children's Hospital and 5 adjacent general hospitals. The study looked at the ratios of patients with KD to patients with respiratory tract or gastro-intestinal infections admitted from April-May in 2015-2019, and the same months in 2020. The study participants included 1649 patients with KD. The number of KD admissions showed no significant change between April-May in 2015-2019, compared to the same months in 2020 (27.4% decrease; aIRR 0.73, 95% CI 0.48-1.10, p=0.12). However, the number of admissions for droplet- or contact-transmitted respiratory tract infections significantly decreased (75.3%; aIRR 0.25, 95% CI 0.17-0.35, p<0.001), and gastro-intestinal infections also significantly decreased (86.3%; aIRR 0.14, 95% CI 0.04-0.43, p<0.001), in April-May 2020, compared to the same months in 2015-2019. Thus, the ratio of KD to droplet- or contact- transmitted respiratory infections and gastro-intestinal infections incidence in April and May 2020 was significantly increased (p<.001). In conclusion, these findings suggest that contact or droplet transmission is not a major route for KD development, and that KD may be associated with airborne infections.	The objective of this multicenter, longitudinal, cross-sectional study was to assess the role of droplet or contact transmission in the pathogenesis of Kawasaki disease (KD). The ratio of KD to droplet- or contact-transmitted respiratory infections and gastro-intestinal infections incidence in April and May 2020 significantly increased (p<.001), compared to 2015-2019. These findings suggest that contact or droplet transmission is not a major route for KD development, and that KD may be associated with airborne infections.	Hara T, Furuno K, Yamamura K, et al. Assessment of Pediatric Admissions for Kawasaki Disease or Infectious Disease During the COVID-19 State of Emergency in Japan. JAMA Netw Open. 2021;4(4):e214475. Published 2021 Apr 1. doi:10.1001/jamanetworkopen.2021.4475
COVID-19; pregnancy; depression; anxiety; meta-analysis	1-Apr-21	<a href="#">Depression and Anxiety in Pregnancy during COVID-19: A Rapid Review and Meta-Analysis</a>	Psychiatry Research	Rapid Review and Meta-analysis	This rapid review and meta-analysis assessed the worldwide prevalence of depression and anxiety among pregnant women during COVID-19 pandemic. A systematic search of the literature and meta-analyses was conducted from December 2019-February 2021, with a total of 46 studies meeting inclusion criteria. Mean participant age was 30.63 years (range=27.4-34.4 years) and mean gestational age was 23.78 weeks (range=7.04-31.63). There were 22 countries represented, across North America (n=9, 19.57%), East Asia (n=17; 36.96%), Europe (n=10, 21.74%), West Asia (n=5, 10.87%), South Asia (n=4, 8.70%) and Europe/West Asia combined (n=1, 2.17%). Depression was assessed in 37 studies (n=47,677), with a pooled prevalence of 25.6% (95% CI: 21.8%, 29.9%). Anxiety was assessed in 34 studies (N = 42,773), with a pooled prevalence of 30.5% (95% CI: 22.6%, 39.8%). There was a significant effect of time on the prevalence rate of anxiety, such that studies with data collection later in the pandemic reported higher prevalence rate (p<0.04). Significant differences (p<0.01) were observed in anxiety prevalence across geographical regions, with prevalence in East Asia being significantly lower than those in Europe and North America, but not significantly lower than those in West Asia. These findings suggest the continued need for screening and evidence-based treatments for depression and anxiety in pregnancy.	This rapid review and meta-analysis assessed the worldwide prevalence of depression and anxiety among pregnant women during COVID-19 pandemic. Prevalence rate of anxiety significantly increased over time during the pandemic. Rates of anxiety were lower in East Asia, compared to Europe and North America, but not West Asia.	Tomfohr-Madsen LM, Racine N, Giesbrecht GF, et al. Depression and Anxiety in Pregnancy during COVID-19: A Rapid Review and Meta-Analysis. Psychiatry Res. 2021. doi:10.1016/j.psychres.2021.13912.

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COVID-19; pregnancy; infant; passive immunity; United States	1-Apr-21	<a href="#">Cord Blood Antibodies following Maternal COVID-19 Vaccination During Pregnancy</a>	American Journal of Obstetrics and Gynecology	Research Letter	The authors described a study to assess cord blood antibodies following maternal COVID-19 vaccination during pregnancy in the US. Women who delivered between January-March 2021 and who received the COVID-19 mRNA vaccine during pregnancy were identified via electronic health record. SARS-CoV-2 IgM and IgG were measured in maternal blood and umbilical cord blood. Matched maternal plasma and cord blood from 27 women (mean age=33 ± 3 years; 75% non-Hispanic white, 11% Hispanic) who delivered 28 infants (1 set of twins) were collected. Mean gestational age at first vaccine dose was 33 ± 2 weeks. According to the article, 64% received the Pfizer vaccine, 18% Moderna, and 14% unknown. 74% received both doses prior to delivery, with a mean latency of 6 ± 3 weeks. Positive IgM was detected in 15 women but no cord blood. 26 women had positive SARS-CoV-2 IgG at time of delivery. Only 3 infants (including the twins) did not have positive IgG; these 2 women had received their first vaccine <3 weeks before delivery. The average maternal-to-infant IgG transfer ratio was 1.0 ± 0.6, but increased latency from vaccination until delivery was associated with an increased transfer ratio ( $\beta=0.2$ , 95% CI 0.1-0.2). Having received the second vaccine dose prior to delivery was significantly associated with increased infant IgG ( $\beta=19.0$ , 95% CI 7.1-30.8). Similarly, latency from vaccination to delivery was associated with increased infant IgG ( $\beta=2.9$ , 95% CI 0.7-5.1). These results show promising evidence of passive immunity against SARS-CoV-2 in infants after maternal receipt of COVID-19 mRNA vaccine.	The authors described a study to assess cord blood antibodies following maternal COVID-19 vaccination during pregnancy in the United States. The results show promising evidence of passive immunity against SARS-CoV-2 in infants after maternal receipt of COVID-19 mRNA vaccine.	Mithal LB, Otero S, Shanes ED, et al. Cord Blood Antibodies following Maternal COVID-19 Vaccination During Pregnancy. Am J Obstet Gynecol. doi:10.1016/j.ajog.2021.03.035.
COVID-19; pregnancy; ICU; Chile	1-Apr-21	<a href="#">Maternal and perinatal outcomes in pregnant women with confirmed severe and mild COVID-19 at one large maternity hospital in Chile</a>	The Journal of Maternal-Fetal & Neonatal Medicine	Original Research	This prospective observational cohort study in Chile assessed the impact of COVID-19 on pregnancy, and safety and feasibility of outpatient management for these cases. 458 pregnant (n=445) and puerperal (n=13) women with confirmed SARS-CoV-2 infection (mean age=29.04 ± 6.38 years; gestational age at diagnosis of COVID-19=26.1 ± 9.5 weeks) that presented to the hospital between 8 April-30 August 2020 were included. 25.5% and 74.4% of women had severe (hospitalized) and mild (outpatient) presentations, respectively. 3% of mild presentations required a subsequent hospitalization. Overall, 5.6% of women were admitted to the ICU, and 2.8% required mechanical ventilation. 1 maternal death occurred at 49 days postpartum. 16.5% (36/217) of deliveries occurred at <37 weeks' gestation. Overall perinatal mortality was 2.65% (6/226), mostly due to fetal mortality. The main factors associated with maternal ICU admission were becoming ill at >24 weeks of gestation (OR=4.58, 95% CI 1.48–20.11, p=0.02), severe COVID-19 requiring hospitalization (OR=1.63, 95% CI 1.11–3.26, p=0.05), and maternal age (OR=1.07, 95% CI 1.01–1.15, p=0.02). Maternal age was the main associated factor with perinatal mortality (OR=1.17, 95% CI 1.01–1.41,	This prospective observational cohort study in Chile assessed the impact of COVID-19 on pregnancy, and safety and feasibility of outpatient management for these cases. The main factors associated with maternal ICU admission were becoming ill at >24 weeks of gestation, severe COVID-19 requiring hospitalization, and higher maternal age. The authors concluded that outpatient management is safe for mild presentations of COVID-19 in pregnant women.	Haye MT, Cartes G, Gutiérrez J, et al. Maternal and perinatal outcomes in pregnant women with confirmed severe and mild COVID-19 at one large maternity hospital in Chile. J Matern Fetal Neonatal Med. 2021:1-6. doi:10.1080/14767058.2021.1902498.

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COVID-19; pediatric; cardiac involvement; Latin America	1-Apr-21	<a href="#">Pediatric multisystem SARS COV2 with versus without cardiac involvement: a multicenter study from Latin America</a>	European Journal of Pediatrics	Original Research	p=0.04). The authors concluded that outpatient management is safe for mild presentations of COVID-19 in pregnant women.  This multi-national study of Latin American children and adolescents examined the distinguishing features of acute or late multi-system SARS-CoV-2 with and without cardiac involvement from mid-May to August 2020. A consecutive sample of children and adolescents 0-18 years old (n=98; 50% male) presenting with multi-system SARS-CoV-2 in 10 Latin American countries (Argentina, Brazil, Chile, Colombia, Dominican Republic, Ecuador, Nicaragua, Paraguay, Peru, and Mexico) were analyzed. The patients were grouped as with (n=50; 50% male; mean age=6.1 ± 4.3 years) vs. without cardiac involvement, defined as abnormal echocardiographic findings or arrhythmia (n=48; 50% male; mean age=4.4 ± 3.9 years). The groups were similar in weight, non-respiratory symptoms, and medical history. The results showed that the cardiac group had 1 death and symptoms including coronary artery dilation, ejection fraction <50%, pericardial effusion, peripheral edema, arrhythmia, and pulmonary artery thrombus. Compared to patients without cardiac involvement, the cardiac group had higher risk of ICU admission (77% vs. 54%, p=0.02), invasive ventilation (23% vs. 4%, p=0.007), vasoactive infusions (27% vs. 4%, p=0.002), prominent respiratory symptoms (60% vs. 36%, p<0.03), abnormal chest imaging (69% vs. 34%, p=0.001), troponin (33% vs. 12%, p=0.01), alanine aminotransferase (ALT, 33% vs. 12%, p=0.02) and thrombocytopenia (46% vs. 22%, p=0.02). Receiver operating curve analysis showed that abnormal lab results had a 94% sensitivity and 98% negative predictive value on the need for ICU interventions. The findings indicate that cardiac involvement was prevalent in Latin American pediatric COVID-19 patients and was associated with ICU interventions, prominent respiratory symptoms, abnormal chest X-ray, elevated troponin, ALT, and thrombocytopenia.	This multi-national study of Latin American children and adolescents examined the distinguishing features of acute or late multi-system SARS-CoV-2 with and without cardiac involvement. Elevated troponin, alanine aminotransferase (ALT), or thrombocytopenia had high sensitivity and negative predictive value on the need for ICU interventions. The findings indicate that cardiac involvement was prevalent in Latin American pediatric COVID-19 patients and was associated with ICU interventions, prominent respiratory symptoms, abnormal chest X-ray, elevated troponin, ALT, and thrombocytopenia.	Pignatelli R, Antona CV, Rivera IR, et al. Pediatric multisystem SARS COV2 with versus without cardiac involvement: a multicenter study from Latin America. Eur J Pediatr. 2021;1-10. doi:10.1007/s00431-021-04052-9.
Ultrasound, imaging, doppler, pregnancy, preterm birth	1-Apr-21	<a href="#">Ultrasound and Doppler findings in pregnant SARS-CoV-2 positive women</a>	Ultrasound in Obstetrics and Gynecology	Original Research	This retrospective study compared ultrasound (US) and doppler findings from 106 pregnant women with SARS-CoV-2 to 103 matched pregnant controls negative for SARS-CoV-2 from May 1-August 31, 2020 in Texas, USA. An adverse prenatal composite outcome (APCPO) was defined and compared between the two groups, which included: rate of small for gestational age (SGA), reduced amniotic fluid, abnormal biophysical profile (BPP), abnormal doppler velocimetry and fetal death. The prevalence of maternal comorbidities was higher among SARS-CoV-2 positive women (76 [71.6%]) compared to controls (50 [48.5%]; p=<0.007), mainly due to women with diabetes (26 [24.5%] vs 13[12.6%]; p=0.03). The prevalence of APCPO in SARS-CoV-2 positive women (19; [17.9%]) was not significantly different compared to controls (9 [8.7%]; p=0.06). No differences in the prevalence of SGA fetuses	In this study comparing ultrasound and doppler findings between SARS-CoV-2 positive pregnant women and SARS-CoV-2 negative controls, the authors did not observe a difference in their adverse prenatal composite outcome (APCPO), defined as: rate of small for gestational age (SGA), reduced amniotic fluid, abnormal biophysical profile (BPP), abnormal Doppler velocimetry and fetal death.	Soto-Torres E, Andrade EH, Huntley E, Mendez-Figueroa H, Blackwell SC. Ultrasound and Doppler findings in pregnant SARS-CoV-2 positive women. Ultrasound Obstet Gynecol. 2021; doi:10.1002/uog.23642

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					(12 [11.3%] vs. 6 [5.8%]; p=0.17), fetuses with abnormal doppler evaluation (8/106 [7.5%] vs. 2 [1.9%]; p=0.08), and with abnormal BPP (4 [3.7%] vs. 0 [0%] between SARS-CoV-2 positive woman and controls were documented. Two fetal deaths and a higher rate of preterm delivery $\leq$ 35 weeks of gestation (22 vs. 9; OR, 2.37 [1.14-4.91] p=0.01) were observed in women SARS-CoV-2 positive as compared to controls. The authors conclude that no significant differences in ultrasound and doppler findings were observed in SARS-CoV-2 positive pregnant women.	They did observe a higher rate of preterm delivery in women SARS-CoV-2 positive compared to controls. The authors conclude that no significant differences in ultrasound and doppler findings were observed in SARS-CoV-2 positive pregnant women.	
COVID-19; children; clinical characteristics; comorbidities	1-Apr-21	<a href="#">Clinical characteristics and outcomes of children with COVID-19 in Saudi Arabia</a>	Saudi Medical Journal	Original Research	This study aims to determine the demographic and clinical characteristics, underlying comorbidities, and outcomes of children with COVID-19 in Saudi Arabia. The authors studied 62 pediatric patients (mean age 6 years, range 0.2 – 13 years; 50% female) with confirmed COVID-19 via RT-PCR nasal swab between March 2 - July 1, 2020, at King Abdulaziz University Hospital, Jeddah, Saudi Arabia. 77.4% of patients had history of contact with an individual with COVID-19. Comorbid conditions, including cardiac, neurological, respiratory, and malignant disorders, were reported in 9 patients (14.5%). The most prominent presenting complaints were fever (80.6%) and cough (48.4%). Regarding gastro-intestinal manifestations, diarrhea occurred in 15 patients (24.2%), vomiting in 11 patients (17.7%), and abdominal pain in 6 patients (9.7%). Most patients (80.6%) had mild disease, 11.3% had moderate disease, and 8.1% exhibited severe and critical illness. 21 patients (33.9%) were hospitalized, with 4 patients (6.5%) admitted to the pediatric ICU, and 3 (4.8%) patients died. Hospitalization was more frequent in infants (<1 year) than in other age groups (p<0.021). The authors conclude that all pediatric age groups are susceptible to COVID-19, with no gender difference, and that SARS-CoV-2 infection may result in critical illness and even mortality in subsets of pediatric patients.	This study aims to determine the demographic and clinical characteristics, underlying comorbidities, and outcomes of children with COVID-19 in Saudi Arabia. The authors conclude that all pediatric age groups are susceptible to COVID-19, with no gender difference, and that SARS-CoV-2 infection may result in critical illness and even mortality in subsets of pediatric patients.	Alnajjar AA, Dohain AM, Abdelmohsen GA, Alahmadi TS, Zaher ZF, Abdelgalil AA. Clinical characteristics and outcomes of children with COVID-19 in Saudi Arabia. <i>Saudi Med J.</i> 2021;42(4):391-398. doi:10.15537/smj.2021.42.4.20210011
COVID-19; anxiety; child; life style; pandemic	1-Apr-21	<a href="#">The effects of the COVID-19 pandemic on children's lifestyles and anxiety levels</a>	Journal of Child and Adolescent Psychiatric Nursing	Original Research	This study was conducted to determine the effects of the COVID-19 pandemic on children's lifestyles and anxiety levels in Turkey. An online questionnaire was distributed to 342 parents of children (mean age 10.3 years, range 9-12 years) in primary schools between May-June 2020. The parents helped their children respond to 22 questions to determine their sociodemographic characteristics and lifestyle changes due to COVID-19. They administered the State-Trait Anxiety Inventory for Children (STAIC) to evaluate the children's anxiety levels. The total score of each subscale varies from 20-60, where higher scores indicated higher state or trait anxiety. They found that children had high state trait anxiety (mean=43.44) and lower trait anxiety (mean=34.84). As the age of the children increased, the state anxiety levels decreased, and the trait anxiety levels increased (p< 0.05). While the state anxiety levels of boys were significantly higher than girls' (p=0.007), there was no significant difference between the genders	This study was conducted to determine the effects of the COVID-19 pandemic on children's lifestyles and anxiety levels in Turkey. This study found that children had high state trait anxiety and lower trait anxiety, and 91.9% of children reported that the pandemic had an important effect on their lifestyle.	Zengin M, Yayan EH, Vicnelioğlu E. The effects of the COVID-19 pandemic on children's lifestyles and anxiety levels [published online ahead of print, 2021 Apr 1]. <i>J Child Adolesc Psychiatr Nurs.</i> 2021. doi:10.1111/jcap.12316

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					in terms of the trait anxiety score ( $p=0.051$ ). 91.9% of children reported that the pandemic had an important effect on their lifestyle. Children stated that due to the pandemic they experienced changes in terms of nutrition (54.0%), sleep (61.5%), television-internet use (71.8%), social activity (duration, form; 76.7%), course work time (71.5%), and school success (45.3%).		
Chest; Children; CT; COVID-19; Lungs; Pulmonary; Radiography; SARS-CoV-2	1-Apr-21	<a href="#">Pulmonary imaging in coronavirus disease 2019 (COVID-19): a series of 140 Latin American children</a>	Pediatric Radiology	Original Research	This study analyzes the pulmonary imaging findings of 140 children (71 female; median age 6.3 years, IQR 1.6-12.1 years) with SARS-CoV-2 infection confirmed by RT-PCR nasal swab or immunoglobulin M (IgM) serology who underwent at least one thoracic imaging modality (radiography or CT) between May 15 - June 25 in 2020 throughout 9 Latin American countries. 131 children had radiography (108 had only radiographs), and 32 children had CT (9 had only CT). Peribronchial thickening (93%), ground-glass opacities (79%) and vascular engorgement (63%) were the most frequent findings on 131 radiographs. Ground-glass opacities (91%), vascular engorgement (84%) and peribronchial thickening (72%) were the most frequent findings on 32 CTs. Peribronchial thickening (100%), ground-glass opacities (83%) and pulmonary vascular engorgement (79%) were common radiograph findings in asymptomatic children ( $n=25$ ). Ground-glass opacity and consolidation were significantly higher in children who needed intensive care admission or died (92% and 48%; $p<0.05$ ), in contrast with children with a favorable outcome (71% and 24%, respectively; $p<0.05$ ). The authors conclude that while COVID-19 radiographic findings in children cannot be distinguished from other airway infections, all COVID-19 radiographic findings are abnormal, including those of asymptomatic children.	This study analyzes pulmonary imaging findings of children with confirmed SARS-CoV-2 infection from 9 Latin American countries. The authors observe that peribronchial thickening, ground-glass opacities, and vascular engorgement were the most frequent findings on radiographs while ground-glass opacities, vascular engorgement, and peribronchial thickening were the most frequent findings on CTs.	Ugas-Charcape CF, Ucar ME, Almanza-Aranda J, et al. Pulmonary imaging in coronavirus disease 2019 (COVID-19): a series of 140 Latin American children [published online ahead of print, 2021 Apr 1]. <i>Pediatr Radiol.</i> 2021;1-11. doi:10.1007/s00247-021-05055-2
COVID-19; MIS-C; cytokines; chemokines; biomarkers; PIMS-TS; SARS-CoV-2	1-Apr-21	<a href="#">Plasma biomarker profiling of PIMS-TS, COVID-19 and SARS-CoV2 seropositive children – a cross-sectional observational study from southern India</a>	EBioMedicine	Original Research	To understand the varied clinical phenotypes associated with SARS-CoV-2 infection in children, the authors performed a multiplex immune assay analysis and compared the plasma biomarkers of PIMS-TS and acute COVID-19 with SARS-CoV-2-seropositive and control children admitted to a tertiary care children's hospital in Chennai, India. The sample consisted of 145 hospitalized children (33 COVID-19, 44 PIMS-TS, 47 seropositive, and 21 control children) from June to September 2020. The median age was 5 years (range 1 month - 17 years); and 58% (84/145) were male. All COVID-19 children were SARS-CoV-2 RT-PCT positive and all PIMS-TS children were seropositive (IgG). PIMS-TS children had significantly elevated levels of cytokines: IFN $\gamma$ , IL-2, TNF $\alpha$ , IL-1 $\alpha$ , IFN $\alpha$ , IFN $\beta$ , IL-6, IL-15, IL-17A, GM-CSF, IL-10, IL-33, and IL-18; elevated chemokines: CCL2, CCL19, CCL20, and CXCL10; and elevated VEGF, Granzyme B, and PDL-1, in comparison to COVID-19, seropositive, and control groups ( $p<0.001$ for each comparison). COVID-19 children had elevated levels of IFN $\gamma$ , IL-2, TNF $\alpha$ , IL-1 $\alpha$ , IFN $\alpha$ , IFN $\beta$ , IL-6, IL-17A, IL-10, CCL2, CCL5, CCL11, CXCL10, and VEGF in comparison to seropositive	The authors conducted an immune assay analysis to understand the varied clinical phenotypes associated with SARS-CoV-2 infection in children, among children with PIMS-TS, acute COVID-19, SARS-CoV-2 seropositivity, and controls without infection. The authors observed that PIMS-TS is a distinct immunopathogenic pediatric illness related to SARS-CoV-2, presenting with cytokine storm different from acute COVID-19 and other hyperinflammatory conditions.	Venkataraman A, Kumar NP, Hanna LE, et al. Plasma biomarker profiling of PIMS-TS, COVID-19 and SARS-CoV2 seropositive children – a cross-sectional observational study from southern India. <i>EBioMedicine.</i> 2021;66. doi: 10.1016/j.ebiom.2021.103317

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					patients and/or controls ( $p < 0.05$ for each comparison). Similarly, seropositive children had elevated levels of IFN $\gamma$ , IL-2, IL-1a, IFN $\beta$ , IL-17A, IL-10, CCL5, and CXCL10 in comparison to control children ( $p < 0.05$ for each biomarker). Plasma biomarkers in PIMS-TS and COVID-19 children were positively correlated with C-Reactive Protein and negatively correlated with lymphocyte count and sodium levels. The authors observed that PIMS-TS is a distinct immunopathogenic pediatric illness related to SARS-CoV-2, presenting with cytokine storm different from acute COVID-19 and other hyper-inflammatory conditions.		
Vaccine; pediatrics; SARS-CoV-2; efficacy	1-Apr-21	<a href="#">COVID-19: Pfizer reports 100% vaccine efficacy in children aged 12 to 15</a>	British Medical Journal (BMJ)	News Article	This article describes the recently released results of the Pfizer-BioNTech COVID-19 vaccine phase III trial in children aged 12-15. The phase III trial included 2260 children in the United States. A total of 18 cases of COVID-19 were observed in the placebo group ( $n=1129$ ), while none were reported in the vaccinated group ( $n=1131$ ). As such, the vaccine efficacy in this albeit small sample has been reported as 100%. The vaccine also elicited robust antibody responses and was well tolerated, with side effects consistent with those observed in participants aged 16 to 25. The data have yet to be submitted for peer review and publication, and Pfizer-BioNTech have commented that participants in the trial will be monitored for 2 years to determine long-term protection and safety. The 100% vaccine efficacy presented here shows significant promise for enabling population immunity against SARS-CoV-2 infection and for school-based vaccinations. In the United States, public health officials speculate that many older children in high school should be able to be vaccinated in the autumn of 2021.	This article describes the results of the Pfizer-BioNTech COVID-19 vaccine phase III trial in children aged 12-15. No cases of COVID-19 were observed in the vaccinated group, leading to a current vaccine efficacy estimate of 100%, and showing promise of eventual population immunity against SARS-CoV-2 infection.	Mahase E. Covid-19: Pfizer reports 100% vaccine efficacy in children aged 12 to 15. <i>BMJ</i> . 2021;373:n881. Published 2021 Apr 1. doi:10.1136/bmj.n881

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COVID-19, Coronavirus, Intensive care units, Neonatal, Pregnancy, Premature birth, Premature rupture of membranes, SARS-CoV-2	1-Apr-21	<a href="#">The Association Between SARS-CoV-2 Infection and Preterm Delivery: A Prospective Study with a Multivariable Analysis</a>	BioMed Central (BMC) Pregnancy and Childbirth	Research Article	The authors of this multicenter prospective study aimed to determine whether SARS-CoV-2 exposure in pregnancy, compared to non-exposure, is associated with infection-related obstetric morbidity. A universal antenatal screening program for SARS-CoV-2 via PCR testing was established in 45 hospitals throughout Spain in late March 2020. The cohort of positive mothers and the concurrent sample of negative mothers was followed up until 6-weeks postpartum. The main outcome measures were preterm delivery, premature rupture of membranes, and neonatal intensive care unit admissions. 1009 screened pregnant women were included in the analysis. The results showed that of the 1009 pregnant women, 246 were SARS-CoV-2 positive. Compared to negative mothers (763 cases), SARS-CoV-2 infection increased the odds of preterm birth (aOR 2.12, 95% CI 1.32-3.36, p=0.002). Of note, iatrogenic preterm delivery was more frequent in infected women (p=0.001). An increased risk of premature rupture of membranes at term (aOR 1.70, 95% CI 1.11-2.57, p=0.013) and neonatal ICU admissions (aOR 4.62, 95% CI 2.43-8.94, p<0.001) was also observed in positive mothers. In conclusion, this study demonstrated that pregnant women infected with SARS-CoV-2 have more infection-related obstetric morbidity. This hypothesis merits evaluation of a causal association in further research.	The authors of this multicenter prospective study aimed to determine whether SARS-CoV-2 exposure in pregnancy, compared to non-exposure, is associated with infection-related obstetric morbidity. SARS-CoV-2 infection increased the odds of preterm birth, iatrogenic preterm delivery, premature rupture of membranes at term and NICU admissions. This study demonstrated that pregnant women infected with SARS-CoV-2 have more infection-related obstetric morbidity.	Martinez-Perez O, Prats Rodriguez P, Muner Hernandez M, et al. The association between SARS-CoV-2 infection and preterm delivery: a prospective study with a multivariable analysis. BMC Pregnancy Childbirth. 2021;21(1):273. Published 2021 Apr 1. doi:10.1186/s12884-021-03742-4
Pediatrics, emergency, fear, infectious disease	1-Apr-21	<a href="#">"Second Wave" of COVID-19 Pandemic: Admittance on Pediatric Emergency Department of a Regional Hospital From North of Spain During State of Alarm</a>  <a href="#">[Free Access to Abstract Only]</a>	Pediatric Emergency Care	Letter	In this letter to the editor, the authors discuss their study analyzing admissions to the pediatric emergency department at their institution in Spain during the second wave of the COVID-19 pandemic, from October 25-November 8, 2020, which they compared to the same months in the year prior (2019). During the study period, 39 pediatric patients were admitted, compared with 84 in the same period of 2019 [significance not reported]. The distribution of patients by sex and age was similar to 2019. The greatest decrease in incidence was observed in specific infectious processes and their complications, for example gastro-enteritis decreased from 15 (17.9%) in 2019 to 0 in 2020 [significance not reported]. However, assistance to patients with febrile syndromes increased considerably from 3 (3.6%) in 2019 to 10 (25.6%) in 2020, which the authors believe led to the increased use of diagnostic tests such as chest x-rays (increase from 7 in 2019 to 9 in 2020) and ultrasounds (increase from 1 in 2019 to 3 in 2020). The authors conclude that there was a decrease in the use of the pediatric emergency department by the population, which they believe is likely attributable to fear from the pandemic.	This letter describes a study comparing visits to a pediatric emergency department in Spain during the second wave of the COVID-19 pandemic to the same months in 2019. They observed a decrease in admissions in 2020, with a decrease in specific infectious processes such as gastro-enteritis but an increase in febrile illnesses and use of diagnostic tests. They believe the decrease in overall utilization is likely due to fear from the pandemic.	Mata Zubillaga D, González García LG, García Aparicio C, Laso Alonso AE, Rodríguez Manchón S, Corral Hospital S. "Second Wave" of COVID-19 Pandemic: Admittance on Pediatric Emergency Department of a Regional Hospital From North of Spain During State of Alarm. Pediatr Emerg Care. 2021;37(4):e219-e220. doi:10.1097/PEC.0000000000002338