LISTA DE REFERÊNCIAS BIBLIOGRÁFICAS E RESUMOS– COVID -19

Atualizado em: 24 de junho de 2022

Título	SARS-CoV-2 co-detection with influenza A and other respiratory viruses among school-aged children and their household members— March 12, 2020, to February 22, 2022, Dane County, Wisconsin
Autor(es)	Jonathan L. Temte; Shari Barlow, Emily Temte, Maureen Goss, Allen Bateman, Kelsey Florek, Amra Uzicanin
Resumo	Concurrent detection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and another respiratory virus in individuals can document contemporaneous circulation. We used an ongoing, community-based study of school-aged children and their households to evaluate SARS-CoV-2 co-detections with other respiratory viruses in a non-medically attended population over a two-year period.Household enrollment was predicated on an acute respiratory illness in a child residing in that household who was also a kindergarten through 12th grade student in the participating school district. Demographic, symptom and household composition data, and self-collected nasal specimens were obtained on the recruitment day, and 7 and 14 days later, from the index child and all other household members. All specimens were tested for SARS-CoV-2/influenza A/B by RT-PCR. Day 0 specimens from the index children were simultaneously tested for 17 viruses using a commercial respiratory pathogen panel (RPP). To assess viral co-detections involving SARS-CoV-2, all household specimens were tested via RPP if the index child's Day 0 specimen tested positive to any of the 17 viral targets in RPP and any household member tested positive for SARS-CoV-2.Of 2,109 participants (497 index children in 497 households with 1,612 additional household members), two (0.1%) were positive for both SARS-CoV-2 and influenza A; an additional 11 (0.5%) were positive for SARS-CoV-2 and another RPP-covered respiratory virus. Co-detections predominantly affected school-aged children (12 out of 13 total) and were noted in 11 of 497 households.SARS-CoV-2 co-detections with other respiratory viruses were uncommon and predominated in school-aged children.
Referências	TEMTE, J. L. *et al.* SARS-CoV-2 co-detection with influenza A and other respiratory viruses among school-aged children and their household members— March 12, 2020, to February 22, Jun. 23, 2022, Dane County, Wisconsin. **Clinical infectious diseases**, [United States], p. ciac487, June 23, 2022. DOI: 10.1093/cid/ciac487. Disponível em: https://doi.org/10.1093/cid/ciac487. Acesso em: 24 jun. 2022.
Fonte	https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciac487/6614626?searchresult=1

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Título	COVID-19 vaccination coverage, intentions, attitudes and barriers by race/ethnicity, language of interview, and nativity, National Immunization Survey Adult COVID Module, April 22, 2021–January 29, 2022
Autor(es)	Elizabeth C Ohlsen, David Yankey, Clelia Pezzi, Jennifer L Kriss, Peng Jun Lu, Mei Chuan Hung, Maria I Dionicio Bernabe, Gayathri S Kumar, Emily Jentes, Laurie D Elam-Evans, Hannah Jackson, Carla L Black, James A Singleton, Chandresh N Ladva, Neetu Abad, Alfonso Rodriguez Lainz
Resumo	The National Immunization Survey Adult COVID Module used a random-digit-dialed phone survey during April 22, 2021–January 29, 2022 to quantify COVID-19 vaccination, intent, attitudes, and barriers by detailed race/ethnicity, interview language, and nativity. Foreign-born respondents overall and within racial/ethnic categories had higher vaccination coverage (80.9%), higher intent to be vaccinated (4.2%), and lower hesitancy towards COVID-19 vaccination (6.0%) than US-born respondents (72.6%, 2.9%, and 15.8%, respectively). Vaccination coverage was significantly lower for certain subcategories of national origin or heritage (e.g., Jamaican (68.6%), Haitian (60.7%), Somali (49.0%) in weighted estimates). Respondents interviewed in Spanish had lower vaccination coverage than interviewees in English but higher intent to be vaccinated and lower reluctance. Collection and analysis of nativity, detailed race/ethnicity and language information allow identification of disparities among racial/ethnic subgroups. Vaccination programs could use such information to implement culturally and linguistically appropriate focused interventions among communities with lower vaccination coverage.
Referências	OHLSEN, E. C. *et al.* COVID-19 vaccination coverage, intentions, attitudes and barriers by race/ethnicity, language of interview, and nativity, National Immunization Survey Adult COVID Module, April 22, 2021–January 29, 2022. **Clinical infectious diseases**, [United States], p. ciac508, June 23, 2022. DOI: 10.1093/cid/ciac508. Disponível em: https://doi.org/10.1093/cid/ciac508. Acesso em: 24 jun. 2022.
Fonte	https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciac508/6614630?searchresult=1

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Título	Viral dynamics of Omicron and Delta SARS-CoV-2 variants with implications for timing of release from isolation: a longitudinal cohort study
Autor(es)	Tara C Bouton, Joseph Atarere, Jacquelyn Turcinovic, Scott Seitz, Cole Sher-Jan, Madison Gilbert, Laura White, Zhenwei Zhou, Mohammad M Hossain, Victoria Overbeck, Lynn Doucette-Stamm, Judy Platt, Hannah E Landsberg, Davidson H Hamer, Catherine Klapperich, Karen R Jacobson, John H Connor
Resumo	In January 2022, United States guidelines shifted to recommend isolation for 5 days from symptom onset, followed by 5 days of mask wearing. However, viral dynamics and variant and vaccination impact on culture conversion are largely unknown.We conducted a longitudinal study on a university campus, collecting daily anterior nasal swabs for at least 10 days for RT-PCR and culture, with antigen rapid diagnostic testing (RDT) on a subset. We compared culture positivity beyond day 5, time to culture conversion, and cycle threshold trend when calculated from diagnostic test, from symptom onset, by SARS-CoV-2 variant, and by vaccination status. We evaluated sensitivity and specificity of RDT on days 4-6 compared to culture.Among 92 SARS-CoV-2 RT-PCR positive participants, all completed the initial vaccine series, 17 (18.5%) were infected with Delta and 75 (81.5%) with Omicron. Seventeen percent of participants had positive cultures beyond day 5 from symptom onset with the latest on day 12. There was no difference in time to culture conversion by variant or vaccination status. For 14 sub-study participants, sensitivity and specificity of day 4-6 RDT were 100% and 86% respectively.The majority of our Delta- and Omicron-infected cohort culture-converted by day 6, with no further impact of booster vaccination on sterilization or cycle threshold decay. We found that rapid antigen testing may provide reassurance of lack of infectiousness, though guidance to mask for days 6-10 is supported by our finding that 17% of participants remained culture positive after isolation.
Referências	BOUTON, T. C. *et al.* Viral dynamics of Omicron and Delta SARS-CoV-2 variants with implications for timing of release from isolation: a longitudinal cohort study. **Clinical Infectious Diseases**, [United States], p. ciac510, June 23, 2022. DOI: 10.1093/cid/ciac510. Disponível em: https://doi.org/10.1093/cid/ciac510. Acesso em: 24 jun. 2022.
Fonte	https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciac510/6614634?searchresult=1

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Título	Decrease in pediatric invasive pneumococcal disease during the COVID-19 pandemic
Autor(es)	Adriana Sarmiento Clemente, Sheldon L Kaplan, William J Barson, Philana Ling Lin, José R Romero, John S Bradley, Tina Q Tan, Pia S Pannaraj, Laurence B Givner, Kristina G Hultén
Resumo	Measures to limit SARS-CoV-2 transmission in 2020 reduced other viral infections. Among 7 US children's hospitals, invasive pneumococcal disease cumulative incidence decreased by 46% in 2020 vs 2017-2019. Limited droplet transmission of pneumococci and preceding viral pathogens may be responsible.
Referências	SARMIENTO CLEMENTE, A. *et al.* Decrease in pediatric invasive pneumococcal disease during the COVID-19 pandemic. **Journal of the Pediatric Infectious Diseases Society**, [United Kingdom], p. piac056, June 22, 2022. DOI: 10.1093/jpids/piac056. Disponível em: https://doi.org/10.1093/jpids/piac056. Acesso em: 24 jun. 2022.
Fonte	https://academic.oup.com/jpids/advance-article-abstract/doi/10.1093/jpids/piac056/6613192?redirectedFrom=fulltext

Título	Investigation on the control of COVID-19 in Wuhan: number of infections outside hospitals and the reproduction number
Autor(es)	Yongxue Chen, Hui Zhang, Jingyu Wang, Cheng Li, Ning Yi, Yongxian Wen
Resumo	COVID-19 is erupting globally and Wuhan successfully controlled it within a month. Infections arose from infectious persons outside hospitals. After data revision, data-based and model-based analyses are implemented and the conclusions are as follows. The incubation period of most infected people may be 6-7 days. The number of infectious persons outside hospitals in Wuhan on Jan.20 is about 10000 and reached more than 20000 on the day of Lockdown, it exceeded 72000 on Feb.4. Both data-based and model-based analyses gave out the evolution of the reproduction number, which is over 2.5 in early January, then go down to 1.62 in late January and 1.20 in early February, a sudden drop to less than 0.5 due to the strict Stay-at-home management after Feb.11. Strategies of Stay-at-home, Safe-protective measures and Ark hospitals are the main contributions to control COVID-19 in Wuhan. Two inflection points of COVID-19 in Wuhan exactly correspond to Feb.5 and Feb.15, the two days when Ark hospitals were introduced and the complete implementation of Stay-at-home. Based on the expression of the reproduction number, group immunity also is discussed. It shows that only when the group immunization rate is over 75 percent can COVID-19 be under control, group immunity actually would be full infection and the total deaths will be 220,000 for a city as big as Wuhan. Sensitivity analysis suggests that 30 percent of people staying at home in combination with better behavior changes, such as social-distancing and frequent hand-washing, can effectively contain COVID-19. But only when this proportion is over 60 percent can the control effect and efficiency like Wuhan be obtained.

Referências	YONGXUE, C. *et al.* Investigation on the control of COVID-19 in Wuhan: number of infections outside hospitals and the reproduction number. **Disaster medicine and public health preparedness**, [United States], p. 1–18, June 21, 2022. DOI: 10.1017/dmp.2022.161. Disponível em: https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/investigation-on-the-control-of-covid19-in-wuhan-number-of-infections-outside-hospitals-and-the-reproduction-number/216E68759E62A4B25A9ECFE4C27C81C9. Acesso em: 24 jun. 2022.
Fonte	https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/investigation-on-the-control-of-covid19-in-wuhan-number-of-infections-outside-hospitals-and-the-reproduction-number/216E68759E62A4B25A9ECFE4C27C81C9

Título	Creation and impact of containment units with high-risk zones during the COVID-19 pandemic
Autor(es)	Natalie Schnell, Brooke Brewer, Kimberly Young, Turkeisha Brown, Shannon Carson, Loc Culp, Cynthia Culbreth, Lauren DiBiase, William Fischer, Katherine Schultz, Emily Sickbert-Bennett, Lisa Stancill, David J. Weber, Erica Wolak, Lisa Teal
Resumo	The rapid spread of coronavirus disease 2019 (COVID-19) required swift preparation to protect healthcare personnel (HCP) and patients, especially in light of personal protective equipment (PPE) shortages. Due to a lack of a pre-existing bio-containment unit, we needed to develop a novel approach to cohort patients while working with the pre-existing physical space.OBJECTIVE:Prevent disease transmission to non-COVID-19 patients and HCP caring for COVID-19 patients, optimize PPE usage, and provide a comfortable and safe working environment.METHODS:An interdisciplinary workgroup developed a combination of approaches to convert existing spaces into COVID-19 containment units with high-risk zones (HRZs). We developed standard workflow and visual management in conjunction with updated staff training and workflows. Infection Prevention created PPE standard practices for ease of use, conservation, and staff safety.RESULTS:The interventions resulted in one possible case of patient-to-HCP transmission and zero cases of patient-to-patient transmission. PPE usage decreased with the HRZ model while maintaining a safe environment of care. COVID-19 unit staff were extremely satisfied with PPE availability (76.7%) and efforts to protect them from COVID-19 (72.7%). Approximately half of COVID-19 unit HCP agreed (54.8%) that PPE monitors played an essential role in staff safety.CONCLUSIONS:The HRZ model of containment unit is an effective method to prevent the spread of COVID-19 with several benefits. It is easily implemented and scaled to account for census changes. Our experience suggests that other institutions do not need to modify existing physical structures to create similarly protective spaces.

Referências	SCHNELL, N. *et al.* Creation and impact of containment units with high-risk zones during the COVID-19 pandemic. **Infection control and hospital epidemiology**, [United Kingdom], p. 1–27, June 17, 2022. DOI: 10.1017/ice.2022.165. Disponível em: https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/creation-and-impact-of-containment-units-with-highrisk-zones-during-the-covid19-pandemic/C28B1CD2C3ABE8D1F0820D8C1EEAF2D0. Acesso em: 24 jun. 2022.
Fonte	https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/creation-and-impact-of-containment-units-with-highrisk-zones-during-the-covid19-pandemic/C28B1CD2C3ABE8D1F0820D8C1EEAF2D0

Título	Benefit and cost of repeating a severe acute respiratory coronavirus virus 2 (SARS-CoV-2) polymerase chain reaction (PCR) test after the second day of hospitalization in five hospitals during various community prevalences and vaccination rates
Autor(es)	Rene Bulnes, Mina Said, Melissa Bronstein, Jennifer Gutowski, Karan Alag, Jonathan Bress, Amber Dellefave, Dawn Riedy, Jose Alcantara, Hiloni Bhavsar, Bryan Gargano, Emil Lesho
Resumo	At our hospital, universal severe acute respiratory coronavirus virus 2 (SARS-CoV-2) polymerase chain reaction (PCR) testing was performed upon admission and again after 2 inpatient days. As community-wide prevalence, admission, and vaccination rates varied, the number needed to benefit fluctuated between 16 and 769 and the cost per additional detection fluctuated between $800 and $29,400. These 2 metrics were negatively associated with new hospital admissions. No other community indicator was associated with the number needed to benefit and cost per additional detection.
Referências	BULNES, R. *et al.* Benefit and cost of repeating a severe acute respiratory coronavirus virus 2 (SARS-CoV-2) polymerase chain reaction (PCR) test after the second day of hospitalization in five hospitals during various community prevalences and vaccination rates. **Infection control and hospital epidemiology**, [United Kingdom], p. 1–4, june 16, 2022. DOI: 10.1017/ice.2022.157. Disponível em: https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/benefit-and-cost-of-repeating-a-severe-acute-respiratory-coronavirus-virus-2-sarscov2-polymerase-chain-reaction-pcr-test-after-the-second-day-of-hospitalization-in-five-hospitals-during-various-community-prevalences-and-vaccination-rates/BB198C5726468632A318D07C195EE421. Acesso em: 24 jun. 2022.
Fonte	https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/benefit-and-cost-of-repeating-a-severe-acute-respiratory-coronavirus-virus-2-sarscov2-polymerase-chain-reaction-pcr-test-after-the-second-day-of-hospitalization-in-five-hospitals-during-various-community-prevalences-and-vaccination-rates/BB198C5726468632A318D07C195EE421

Título	Omicron variant in Mexico: the fourth COVID-19 wave
Autor(es)	Sergio Isaac De La-Cruz Hernández, Ana Karen Álvarez-Contreras
Resumo	To the Editor **:** Just when several countries around the world were leaving behind the wave caused by the Delta variant of severe acute respiratory syndrome coronavirus 2 (SARS CoV-2), the Omicron variant emerged causing millions of infections worldwide.1,2 This new variant of SARS CoV-2 is characterized by having 32 mutations in the spike protein. It is noteworthy that Delta variant has only five mutations in this protein, which is the main antigenic target of antibodies produced by both infections and vaccination.3 Furthermore, the Omicron variant is up to 2.8 times more transmissible than the Delta variant, which itself was more transmissible than the Alpha variant.
Referências	HERNÁNDEZ, S. I. D. L.-C.; ÁLVAREZ-CONTRERAS, A. K. Omicron variant in Mexico: the fourth COVID-19 wave. **Disaster medicine and public health preparedness**, [United States], p. 1–6, June 16, 2022. DOI: 10.1017/dmp.2022.160. Disponível em: https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/omicron-variant-in-mexico-the-fourth-covid19-wave/262A8D9CFE482034779612CB7DFDDC64. Acesso em: 24 jun. 2022.
Fonte	https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/omicron-variant-in-mexico-the-fourth-covid19-wave/262A8D9CFE482034779612CB7DFDDC64

Título	Emergence and widespread circulation of a recombinant SARS-CoV-2 lineage in North America
Autor(es)	Bernardo Gutierrez, Hugo G. Castelán Sánchez, Darlan da Silva Candido, Ben Jackson, Shay Fleishon, Renaud Houzet, Christopher Ruis, Luis Delaye, Nuno R. Faria, Andrew Rambaut, Oliver G. Pybus, Marina Escalera-Zamudio
Resumo	While recombination is a feature of coronavirus evolution, previously detected recombinant lineages of SARS-CoV-2 have shown limited circulation thus far. Here, we present a detailed phylogenetic analysis of four SARS-CoV-2 lineages to investigate the possibility of virus recombination among them. Our analyses reveal well-supported phylogenetic differences between the Orf1ab region encoding viral non-structural proteins and the rest of the genome, including Spike (S) protein and remaining reading frames. By accounting for several deletions 36 in NSP6, Orf3a and S, we conclude that the B.1.628 major cluster, now designated as lineage 37 XB, originated from a recombination event between viruses of B.1.631 and B.1.634 lineages. 38 This scenario is supported by the spatiotemporal distribution of these lineages across the USA 39 and Mexico during 2021, suggesting this recombination event originated in this geographical 40 region. This event raises important questions regarding the role and potential effects of 41 recombination on SARS-CoV-2 evolution.
Referências	GUTIERREZ, B. *et al.* Emergence and widespread circulation of a recombinant SARS-CoV-2 lineage in North America. **Cell host & microbe**, [United States], p. S1931312822003158, June 16, 2022. DOI: 10.1016/j.chom.2022.06.010. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S1931312822003158. Acesso em: 24 jun. 2022.
Fonte	https://www.cell.com/mwg-internal/de5fs23hu73ds/progress?id=6t-AOqk3xD7NWbBFbJwRF_4vWqUJfrSvZ1LecHbWVK8,&dl

Título	Long COVID symptoms in SARS-CoV-2-positive children aged 0–14 years and matched controls in Denmark (LongCOVIDKidsDK): a national, cross-sectional study
Autor(es)	Selina Kikkenborg Berg, Pernille Palm, Ulrikka Nygaard, Henning Bundgaard, Maria Nivi Schmidt Petersen, Siri Rosenkilde, Anne Bonde Thorsted, Annette Kjær Ersbøll, Lau Casper Thygesen, Susanne Dam Nielsen, Anne Vinggaard Christensen
Resumo	After the acute phase of SARS-CoV-2 infection, children can develop long COVID symptoms. We aimed to investigate the prevalence of long-lasting symptoms, the duration and intensity of symptoms, quality of life, number of sick days and absences from daycare or school, and psychological and social outcomes in children aged 0–14 years who had been infected with SARS-CoV-2 relative to controls with no history of SARS-CoV-2 infection.
Referências	BERG, S. K. *et al.* Long COVID symptoms in SARS-CoV-2-positive children aged 0–14 years and matched controls in Denmark (LongCOVIDKidsDK): a national, cross-sectional study. **The Lancet. Child & adolescent health**, [United Kingdom], June 22, 2022. DOI: 10.1016/S2352-4642(22)00154-7. Disponível em: https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642(22)00154-7/fulltext. Acesso em: 24 jun. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2352-4642%2822%2900154-7

Título	State-wide genomic epidemiology investigations of COVID-19 in healthcare workers in 2020 Victoria, Australia: Qualitative thematic analysis to provide insights for future pandemic preparedness
Autor(es)	Anne E. Watt, Norelle L. Sherry, Patiyan Andersson,Courtney R. Lane, Sandra Johnson, Mathilda Wilmot, Kristy Horan, Michelle Sait, Susan A. Ballard, Christina Crachi, Dianne J. Beck, Caroline Marshall, Marion A. Kainer, Rhonda Stuart, Christian McGrath, Jason C. Kwong, Pauline Bass, Peter G. Kelley, Amy Crowe, Stephen Guy, Nenad Macesic, Karen Smith, Deborah A. Williamson, Torsten Seemann, Benjamin P. Howden
Resumo	COVID-19 has affected many healthcare workers (HCWs) globally. We performed state-wide SARSCoV-2 genomic epidemiological investigations to identify HCW transmission dynamics and provide recommendations to optimise healthcare system preparedness for future outbreaks.
Referências	WATT, A. E. *et al.* State-wide genomic epidemiology investigations of COVID-19 in healthcare workers in 2020 Victoria, Australia: Qualitative thematic analysis to provide insights for future pandemic preparedness. **The Lancet regional health. Western Pacific**, [United Kingdom], v. 25, june 3, 2022. Disponível em: https://www.thelancet.com/journals/lanwpc/article/PIIS2666-6065(22)00102-X/fulltext. Acesso em: 15 jun. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2666-6065%2822%2900102-X

Título	Utility of SARS-CoV-2 rapid antigen testing for patient triage in the emergency department: a clinical implementation study in Melbourne, Australia
Autor(es)	Katherine A Bond, Ben Smith,e Emma Gardiner,KC Liew, Eloise Williams, Nicola Walsham, Mark Putland, Deborah A Williamson
Resumo	Early, rapid detection of SARS-CoV-2 is essential in healthcare settings in order to implement appropriate infection control precautions and rapidly assign patients to care pathways. Rapid testing methods, such as SARSCoV-2 rapid antigen testing (RAT) may improve patient care, despite a lower sensitivity than real-time PCR (RTPCR) testing.
Referências	BOND, K. A. *et al.* Utility of SARS-CoV-2 rapid antigen testing for patient triage in the emergency department: a clinical implementation study in Melbourne, Australia. **The Lancet regional health. Western Pacific**, [United Kingdom], v. 25, p. 100486, May 30, 2022. DOI: 10.1016/j.lanwpc.2022.100486. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S2666606522001018. Acesso em: 17 jun. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2666-6065%2822%2900101-8

Título	A multiplex protein panel assay for severity prediction and outcome prognosis in patients with COVID-19: An observational multi-cohort study
Autor(es)	Ziyue Wang, Adam Cryar, Oliver Lemke,Pinkus Tober-Lau, Daniela Ludwig, Elisa Theresa Helbig, Stefan Hippenstiel, Leif-Erik Sander, Daniel Blake, Catherine S. Lane, Rebekah L. Sayers, Christoph Mueller, Johannes Zeiser, StJohn Townsend, Vadim Demichev,Michael Mulleder, Florian Kurth, Ernestas Sirka, Johannes Hartl, Markus Ralser
Resumo	Global healthcare systems continue to be challenged by the COVID-19 pandemic, and there is a need for clinical assays that can help optimise resource allocation, support treatment decisions, and accelerate the development and evaluation of new therapies.
Referências	WANG, Z. *et al.* A multiplex protein panel assay for severity prediction and outcome prognosis in patients with COVID-19: An observational multi-cohort study. **eClinicalMedicine**, [Netherlands], v. 49, June 9, 2022. DOI: 10.1016/j.eclinm.2022.101495. Disponível em: https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(22)00225-5/fulltext. Acesso em: 17 jun. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2589-5370%2822%2900225-5

Título	Neurodevelopmental Outcomes at 1 Year in Infants of mothers who tested positive for SARS-CoV-2 during pregnancy
Autor(es)	Andrea G. Edlow, Victor M. Castro, Lydia L. Shook, Anjali J. Kaimal, Roy H. Perlis
Resumo	Epidemiologic studies suggest maternal immune activation during pregnancy may be associated with neurodevelopmental effects in offspring.To evaluate whether in utero exposure to SARS-CoV-2 is associated with risk for neurodevelopmental disorders in the first 12 months after birth.This retrospective cohort study examined live offspring of all mothers who delivered between March and September 2020 at any of 6 Massachusetts hospitals across 2 health systems. Statistical analysis was performed from October to December 2021.Maternal SARS-CoV-2 infection confirmed by a polymerase chain reaction test during pregnancy.Neurodevelopmental disorders determined from International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10) diagnostic codes over the first 12 months of life; sociodemographic and clinical features of mothers and offspring; all drawn from the electronic health record.The cohort included 7772 live births (7466 pregnancies, 96% singleton, 222 births to SARS-CoV-2 positive mothers), with mean (SD) maternal age of 32.9 (5.0) years; offspring were 9.9% Asian (772), 8.4% Black (656), and 69.0% White (5363); 15.1% (1134) were of Hispanic ethnicity. Preterm delivery was more likely among exposed mothers: 14.4% (32) vs 8.7% (654) (P = .003). Maternal SARS-CoV-2 positivity during pregnancy was associated with greater rate of neurodevelopmental diagnoses in unadjusted models (odds ratio [OR], 2.17 [95% CI, 1.24-3.79]; P = .006) as well as those adjusted for race, ethnicity, insurance status, offspring sex, maternal age, and preterm status (adjusted OR, 1.86 [95% CI, 1.03-3.36]; P = .04). Third-trimester infection was associated with effects of larger magnitude (adjusted OR, 2.34 [95% CI, 1.23-4.44]; P = .01).This cohort study of SARS-CoV-2 exposure in utero found preliminary evidence that maternal SARS-CoV-2 may be associated with neurodevelopmental sequelae in some offspring. Prospective studies with longer follow-up duration will be

	required to exclude confounding and confirm these associations.
Referências	EDLOW, A. G. *et al.* Neurodevelopmental Outcomes at 1 Year in Infants of mothers who tested positive for SARS-CoV-2 during pregnancy. **JAMA network open**, [United States], v. 5, n. 6, p. e2215787, June 9, 2022. DOI: 10.1001/jamanetworkopen.2022.15787. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.15787. Acesso em: 17 jun. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2793178

Título	Analysis of postvaccination breakthrough COVID-19 infections among adults with hiv in the United States
Autor(es)	Sally B. Coburn, Elizabeth Humes, Raynell Lang, Cameron Stewart, Brenna C. Hogan, Kelly A. Gebo, Sonia Napravnik, Jessie K. Edwards, Lindsay E. Browne, Lesley S. Park, Amy C. Justice, Kirsha S. Gordon, Michael A. Horberg, Julia M. Certa, Eric Watson, Celeena R. Jefferson, Michael J. Silverberg, Jacek Skarbinski, Wendy A. Leyden, Carolyn F. Williams, Keri N. Althoff
Resumo	Recommendations for additional doses of COVID-19 vaccines for people with HIV (PWH) are restricted to those with advanced disease or unsuppressed HIV viral load. Understanding SARS-CoV-2 infection risk after vaccination among PWH is essential for informing vaccination guidelines.To estimate the rate and risk of breakthrough infections among fully vaccinated PWH and people without HIV (PWoH) in the United States.This cohort study used the Corona-Infectious-Virus Epidemiology Team (CIVET)-II (of the North American AIDS Cohort Collaboration on Research and Design [NA-ACCORD], which is part of the International Epidemiology Databases to Evaluate AIDS [IeDEA]), collaboration of 4 prospective, electronic health record–based cohorts from integrated health systems and academic health centers. Adult PWH who were fully vaccinated prior to June 30, 2021, were matched with PWoH on date of full vaccination, age, race and ethnicity, and sex and followed up through December 31, 2021.HIV infection.COVID-19 breakthrough infections, defined as laboratory evidence of SARS-CoV-2 infection or COVID-19 diagnosis after a patient was fully vaccinated.Among 113 994 patients (33 029 PWH and 80 965 PWoH), most were 55 years or older (80 017 [70%]) and male (104 967 [92%]); 47 098 (41%) were non-Hispanic Black, and 43 218 (38%) were non-Hispanic White. The rate of breakthrough infections was higher in PWH vs PWoH (55 [95% CI, 52-58] cases per 1000 person-years vs 43 [95% CI, 42-45] cases per 1000 person-years). Cumulative incidence of breakthroughs 9 months after full vaccination was low (3.8% [95% CI, 3.7%-3.9%]), albeit higher in PWH vs PWoH (4.4% vs 3.5%; log-rank P < .001; risk difference, 0.9% [95% CI, 0.6%-1.2%]) and within each vaccine type. Breakthrough infection risk was 28% higher in PWH vs PWoH (adjusted hazard ratio, 1.28 [95% CI, 1.19-1.37]). Among PWH, younger age (<45 y vs 45-54 y), history of COVID-19, and not receiving an additional dose (aHR, 0.71 [95% CI, 0.58-0.88]) were associated with increased risk of breakthrough infections. There was no association of breakthrough with HIV viral load

Resumo	suppression, but high CD4 count (ie, ≥500 cells/mm3) was associated with fewer breakthroughs among PWH.In this study, COVID-19 vaccination, especially with an additional dose, was effective against infection with SARS-CoV-2 strains circulating through December 31, 2021. PWH had an increased risk of breakthrough infections compared with PWoH. Expansion of recommendations for additional vaccine doses to all PWH should be considered.
Referências	COBURN, S. B. *et al.* Analysis of postvaccination breakthrough COVID-19 infections among adults with hiv in the United States. **JAMA network open**, [United States], v. 5, n. 6, p. e2215934, June 7, 2022. DOI: 10.1001/jamanetworkopen.2022.15934. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.15934. Acesso em: 17 jun. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2793102

Título	COVID-19 related Multisystem Inflammatory Syndrome in a neonate presenting as supraventricular tachycardia. a case report
Autor(es)	Wajid Hussain
Resumo	The increasing trend in COVID-19-associated multisystem inflammatory syndrome in children MIS-C has been reported as severe acute respiratory syndrome coronavirus 2 continues to spread worldwide. Impact of covid 19 on newborns remains uncertain, while low, but the risk of neonatal infection does exist. A study from China reported 3% of neonates had evidence of SARS-CoV-2 infection. Postnatal infection is considered through horizontal transmission, as SARS-CoV-2 testing on placenta, umbilical cord, amniotic fluid, vaginal secretions, and breast milk samples has been negative. Diagnosis of MIS-C is based on 6 criteria: pediatric age, persistence fever, raised inflammatory markers, signs of organ dysfunction, lack of an alternative diagnosis, and temporal relation to COVID-19 infection or exposureA CASE REPORT 24 days old neonate presented with fever, Reluctance to feed and Respiratory distress for 1 day. He was born to a mother G2P1 + 0 with no Co-morbid at 38 weeks gestation with APGAR scores of 8 at 1 minute and 9 at 5 minutes. Clinically he was febrile with heart rate of 270 beats per minute and respiratory rate of 70 breaths per minute. First and 2nd heart sounds were audible along with gallop rhythm. ECG showed rate of 270 & absent p wave suggestive of supraventricular tachycardia. INVESTIGATIONS His pro BNP 152772 pg/ml and trop I were significantly raised. Echocardiography was consistent with severe biventricular dysfunction and ejection fraction of 20 %. COVID antibodies were sent which were reactive. His inflammatory markers ferritin, LDH and D Dimer were strikingly raised. Two blood cultures and bio fire were negative, fulfilling the MIS-C criteria Adenosine was given twice with no improvement, IV amiodarone was added, which reverted SVT. IVIG was given.Improved echocardiographic led to extubation on day seven AND DISCHARGEDMIS-C in a neonate highlights the importance of considering the increasing spectrum of clinical manifestations, associated with SARS-CoV-2 infection.

	Further research is needed to make neonatal MISC guidelines
Referências	HUSSAIN, W. COVID-19 related Multisystem Inflammatory Syndrome in a neonate presenting as supraventricular tachycardia. A case report. **Journal of the Pediatric Infectious Diseases Society**, [United Kingdom], v. 11, n. Supplement_1, p. S13, June 14, 2022. DOI: 10.1093/jpids/piac041.049. Disponível em: https://doi.org/10.1093/jpids/piac041.049. Acesso em: 17 jun. 2022.
Fonte	https://academic.oup.com/jpids/article-abstract/11/Supplement_1/S13/6608134?redirectedFrom=fulltext

Título	International risk of SARS-CoV-2 omicron variant importations originating in South Africa
Autor(es)	Yuan Bai, Zhanwei Du, Mingda Xu, Lin Wang, Peng Wu, Eric H Y Lau, Benjamin J Cowling, Lauren Ancel Meyers
Resumo	Omicron, a fast-spreading SARS-CoV-2 variant of concern reported to the World Health Organization on November 24, 2021, has raised international alarm. We estimated there is at least 50% chance that Omicron had been introduced by travellers from South Africa into 11 of the 14 countries studied by November 28, 2021.
Referências	YUAN, B. *et al.* International risk of SARS-CoV-2 omicron variant importations originating in South Africa. **Journal of travel medicine**, [United Kingdom], p. taac073, June 15, 2022. DOI: 10.1093/jtm/taac073. Disponível em: https://doi.org/10.1093/jtm/taac073. Acesso em: 17 jun. 2022.
Fonte	https://academic.oup.com/jtm/advance-article-abstract/doi/10.1093/jtm/taac073/6608762?redirectedFrom=fulltext

Título	Decreased risk of COVID-19-related hospitalization associated with Omicron variant of SARS-CoV-2
Autor(es)	Jessica P Ridgway, Samuel Tideman, Bill Wright, Ari Robicsek
Resumo	Among 134,223 patients with COVID-19, we assessed how risk of hospitalization changed at different intervals in the pandemic, controlling for prior COVID-19 immunity. In multivariable analysis, outpatients with COVID-19 during the Omicron predominant time period had significantly lower odds of hospitalization compared to pre-Delta (aOR 0.26, 95% CI [0.22-0.32]).
Referências	RIDGWAY, J. P. *et al.* Decreased risk of COVID-19-related hospitalization associated with Omicron variant of SARS-CoV-2. **Open forum infectious diseases**, [United Kingdom], p. ofac288, June 15, 2022. DOI: 10.1093/ofid/ofac288. Disponível em: https://doi.org/10.1093/ofid/ofac288. Acesso em: 17 jun. 2022.
Fonte	https://academic.oup.com/ofid/advance-article/doi/10.1093/ofid/ofac288/6608720?searchresult=1

Título	Two month follow-up of patients with acute COVID-19 and multisystem inflammatory syndrome in children
Autor(es)	I Racko
Resumo	Children infected with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) are usually asymptomatic or have mild coronavirus disease (COVID) with low rates of hospitalization. Two long-term consequences have been described after SARS-CoV-2 infection. The first is multisystem inflammatory syndrome in children (MIS-C) and the second is “long COVID”. Data on long COVID in pediatric patients has increasingly been published, giving new insights into the ways this phenomenon affects children. This study aimed to describe the persistent symptom spectrum of patients with acute SARS-CoV-2 infection and MIS-C two months after the diagnosis.This was a prospective cohort study conducted at the Children's Clinical University Hospital in Latvia. The study population of pediatric COVID-19 and MIS-C patients were invited to participate between December 1, 2020, and December 31, 2021. The study included children with moderate and severe acute SARS-CoV-2 infection who required hospitalization and MIS-C. Overall, 53 acute Covid-19 and 22 MIS-C patients were enrolled in the study. All patients were evaluated by specially designed assessment protocols. The Ethics Committee of Riga Stradins University reviewed and approved the study protocol questionnaire and informed consent forms (approval No. 6-1/07/35). Descriptive statistics were used to present the data.Data showed that two months after acute SARS-CoV-2 infection 84% (n=45) of patients had at least one persistent symptom. In addition, 73% (n=16) of MIS-C patients reported at least one persistent symptom. Generally, the most commonly reported complaints among COVID-19 patients included rhinorrhea (41%), cognitive sequelae such as mood swings (38%) and irritability (36%), prolonged cough (30%), anxiety (19%), night sweats (15%), sore throat and shortness of breath (13%). In the MIS-C patient group - body weight changes and mood swings (36%), irritability (27%), poor attention (23%), fatigue (18%), and in 14% of cases were observed myalgia, night sweats, difficulties concentrating and anxiety. There were other similar but less common complaints in both groups, such as prolonged fever, nausea, shortness of breath, dizziness and memory impairment.We found that at the time of interview more than

Resumo	half of COVID-19 and MIS-C patients reported at least one persistent symptom. Symptoms including rhinorrhea, mood swings, irritability, prolonged cough, poor attention and fatigue were the most frequently reported complaints of long COVID-19 after acute SARS-CoV-2 infection and MIS-C, representing the wide range of symptoms affecting children.
Referências	RACKO, I. TWO Two month follow-up of patients with acute COVID-19 and multisystem inflammatory syndrome in children. **Journal of the Pediatric Infectious Diseases Society**, [United Kingdom], v. 11, n. Supplement_1, p. S13, June 14, 2022. DOI: 10.1093/jpids/piac041.052. Disponível em: https://doi.org/10.1093/jpids/piac041.052. Acesso em: 17 jun. 2022.
Fonte	https://academic.oup.com/jpids/article-abstract/11/Supplement_1/S13/6608159?redirectedFrom=fulltext

Título	Effect of coronavirus disease 2019 (COVID-19), a nationwide mass casualty disaster on intensive care units: clinical outcomes and associated cost-of-care
Autor(es)	Allison M. Henning, Neal J. Thomas, David M. Shore, Michelle E. Memmi, Li Wang, Duane C. Williams
Resumo	OBJECTIVE: The COVID-19 pandemic resulted in millions of deaths worldwide and is considered a significant mass-casualty disaster (MCD). The surge of patients and scarcity of resources negatively impacted hospitals, patients, and medical practice. We hypothesized ICUs during this MCD had a higher acuity of illness and subsequently had increased lengths of stay (LOS), complication rates, death rates, and costs of care. The purpose of this study was to investigate those outcomes. METHODS: This was a multicenter, retrospective study that compared intensive care admissions in 2020 to those in 2019 to evaluate patient outcomes and cost of care. Data were obtained from the Vizient Clinical Data Base/Resource Manager. RESULTS: Data included the number of ICU admissions, patient outcomes, case mix index, and summary of cost reports. Quality outcomes were also collected. 1,304,981 patients from 333 hospitals were included. For all medical centers, there was a significant increase in LOS index, ICU LOS, complication rate, case mix index, total cost, and direct cost index.CONCLUSION: The MCD caused by COVID-19 was associated with increased adverse outcomes and cost-of-care for ICU patients.
Referências	HENNING, A. M. *et al.* Effect of coronavirus disease 2019 (COVID-19), a nationwide mass casualty disaster on intensive care units: clinical outcomes and associated cost-of-care. **Disaster medicine and public health preparedness**, [United States], p. 1–19, June 15, 2022. DOI: 10.1017/dmp.2022.159. Disponível em: https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/effect-of-coronavirus-disease-2019-covid19-a-nationwide-mass-casualty-disaster-on-intensive-care-units-clinical-outcomes-and-associated-costofcare/A34B89608DD4D6842A32B37E30C45806. Acesso em: 17 jun. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/A34B89608DD4D6842A32B37E30C45806/S1935789322001598a.pdf/effect_of_coronavirus_disease_2019_covid19_a_nationwide_mass_casualty_disaster_on_intensive_care_units_clinical_outcomes_and_associated_costofcare.pdf

Título	The Omicron variant is striking Iraqi Kurdistan in January 2022: Would preventive measures contain the new wave?
Autor(es)	Muayad A. Merza , Hind B. Almufty
Resumo	The SARS-COV-2 virus remains a major threat all over the world including Iraqi Kurdistan. As of February 25, 2022, there were 2,298,164 confirmed COVID-19 cases and 24,931 death cases recorded in Iraq...
Referências	MERZA, M. A.; ALMUFTY, H. B. The Omicron variant is striking Iraqi Kurdistan in January 2022: would preventive measures contain the new wave?. **Disaster medicine and public health preparedness**, [United States], p. 1–5, June 9, 2022. DOI: 10.1017/dmp.2022.156. Disponível em: https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/omicron-variant-is-striking-iraqi-kurdistan-in-january-2022-would-preventive-measures-contain-the-new-wave/41A23D4B4315ECE060809DD4747C1954. Acesso em: 17 jun. 2022.
Fonte	https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/omicron-variant-is-striking-iraqi-kurdistan-in-january-2022-would-preventive-measures-contain-the-new-wave/41A23D4B4315ECE060809DD4747C1954

Título	COVID-19 data reporting systems in Africa reveal insights for future pandemics
Autor(es)	Seth D. Judson, Judith Torimiro, David M. Pigott, Apollo Maima, Ahmed Mostafa, Ahmed Samy, Peter Rabinowitz, Kevin Njabo
Resumo	Globally, countries have used diverse methods to report data during the COVID-19 pandemic. Using international guidelines and principles of emergency management, we compare national data reporting systems in African countries in order to determine lessons for future pandemics. We analyse COVID-19 reporting practices across 54 African countries through 2020. Reporting systems were diverse and included summaries, press releases, situation reports, and online dashboards. These systems were communicated via social media accounts and websites belonging to ministries of health and public health. Data variables from the reports included event detection (cases/deaths/recoveries), risk assessment (demographics/co-morbidities), and response (total tests/hospitalizations). Of countries with reporting systems, 36/53 (67.9%) had recurrent situation reports and/or online dashboards which provided more extensive data. All of these systems reported cases, deaths, and recoveries. However, few systems contained risk assessment and response data, with only 5/36 (13.9%) reporting patient co-morbidities and 9/36 (25%) including total hospitalizations. Further evaluation of reporting practices in Cameroon, Egypt, Kenya, Senegal, and South Africa as examples from different sub-regions revealed differences in reporting healthcare capacity and preparedness data. Improving the standardization and accessibility of national data reporting systems could augment research and decisionmaking, as well as increase public awareness and transparency for national governments.
Referências	JUDSON, S. D. *et al.* COVID-19 data reporting systems in Africa reveal insights for future pandemics. Epidemiol. infect., [United Kingdom], p. 1–22, June 16, 2022. DOI: 10.1017/S0950268822001054. Disponível em: https://www.cambridge.org/core/journals/epidemiology-and-infection/article/covid19-data-reporting-systems-in-africa-reveal-insights-for-future-pandemics/6FA5B7C49829C405BCD93375877A78A2. Acesso em: 17 jun. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/6FA5B7C49829C405BCD93375877A78A2/S0950268822001054a.pdf/covid19_data_reporting_systems_in_africa_reveal_insights_for_future_pandemics.pdf

Título	Incidence and severity of SARS-CoV-2 infection in former Q fever patients as compared to the Dutch population, 2020-2021
Autor(es)	Elisabeth Maria den Boogert, Marit M.A. de Lange , Cornelia C.H. Wielders , Ariene Rietveld, Mirjam J. Knol, Arianne B. van Gageldonk-Lafeber
Resumo	Surveillance data shows a geographical overlap between the early COVID-19 pandemic and the past Q fever epidemic (2007-2010) in the Netherlands. We investigated the relationship between past Q fever and SARS-CoV-2 infection in 2020/2021, using a retrospective matched cohort study. In January 2021, former Q fever patients received a questionnaire on demographics, SARS-CoV-2 test results, and related hospital/intensive care unit (ICU) admissions. SARS-CoV-2 incidence with 95% confidence intervals (CI) in former Q fever patients and standardized incidence ratios (SIR) to compare to the age-standardized SARS-CoV-2 incidence in the general regional population were calculated. Among 890 former Q fever patients (response rate: 68%), 66 had a PCR-confirmed SARS-CoV-2 infection. Of these, nine (14%) were hospitalized and two (3%) admitted to ICU. From February-June 2020 the SARS-CoV-2 incidence was 1573/100000 (95%CI 749-2397) in former Q fever patients and 695/100000 in the general population (SIR 2.26; 95%CI 1.24-3.80). The incidence was not significantly higher from September 2020-February 2021. We found no sufficient evidence for a difference in SARS-CoV-2 incidence or an increased severity in former Q fever patients versus the general population during the period with widespread SARS-CoV2 testing availability (September 2020-February 2021). This indicates that former Q fever patients do not have a higher risk of SARS-CoV-2 infection.
Referências	BOOGERT, E. M. den *et al.* Incidence and severity of SARS-CoV-2 infection in former Q fever patients as compared to the Dutch population, 2020-2021. **Epidemiology and infection**, [United Kingdom], p. 1–17, June 8, 2022. DOI: 10.1017/S0950268822001029. Disponível em: https://www.cambridge.org/core/journals/epidemiology-and-infection/article/incidence-and-severity-of-sarscov2-infection-in-former-q-fever-patients-as-compared-to-the-dutch-population-20202021/D406469AB458859BBC143FC4735576DA. Acesso em: 10 jun. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/D406469AB458859BBC143FC4735576DA/S0950268822001029a.pdf/incidence_and_severity_of_sarscov2_infection_in_former_q_fever_patients_as_compared_to_the_dutch_population_20202021.pdf

Título	Coronavirus Disease-2019 (COVID-19) among Non-physician Healthcare Personnel by Work Location at a Tertiary Care Center, Iowa, 2020–2021
Autor(es)	Takaaki Kobayashi, John Heinemann, Alexandra Trannel, Alexandre R Marra, Mohammed Alsuhaibani, William Etienne, Lorinda L. Sheeler , Oluchi Abosi MB ChB, Stephanie Holley, Mary Beth Kukla, Angelique Dains, Kyle E. Jenn, Holly Meacham, Beth Hanna, Bradley Ford , Karen Brust , Melanie Wellington, Patrick G. Hartley , Daniel J. Diekema, Jorge L. Salinas
Resumo	We describe COVID-19 cases among non-physician healthcare personnel (HCP) by work location. The proportion of HCP with COVID-19 was highest in the emergency department and lowest among those working remotely. COVID-19 and non-COVID-19 units had similar proportions of HCP with COVID-19 (13%). Cases decreased across all work locations following COVID-19 vaccination.
Referências	KOBAYASHI, T. *et al.* Coronavirus Disease-2019 (COVID-19) among Non-physician Healthcare Personnel by Work Location at a Tertiary Care Center, Iowa, 2020–2021. **Infection control and hospital epidemiology**, [United Kingdom], p. 1–11, June 2, 2022. DOI: 10.1017/ice.2022.148. Disponível em: https://www.cambridge.org/core/product/identifier/S0899823X22001489/type/journal_article. Acesso em: 10 jun. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/DA9DC9B2407CBE77914125A03C83589C/S0899823X22001489a.pdf/coronavirus_disease2019_covid19_among_nonphysician_healthcare_personnel_by_work_location_at_a_tertiary_care_center_iowa_20202021.pdf

Título	COVID-19 trajectories among 57 million adults in England: a cohort study using electronic health records
Autor(es)	Johan H Thygesen, Christopher Tomlinson, Sam Hollings, Mehrdad A Mizani, Alex Handy, Ashley Akbari, Amitava Banerjee, Jennifer Cooper, Alvina G Lai, Kezhi Li, Bilal A Mateen, Naveed Sattar, Reecha Sofat, Ana Torralbo, Honghan Wu, Angela Wood, Jonathan A C Sterne, Christina Pagel, William N Whiteley, Cathie Sudlow, Harry Hemingway, Spiros Denaxas, on behalf of the Longitudinal Health and Wellbeing COVID-19 National Core Study and the CVD-COVID-UK/COVID-IMPACT Consortium
Resumo	Updatable estimates of COVID-19 onset, progression, and trajectories underpin pandemic mitigation efforts. To identify and characterise disease trajectories, we aimed to define and validate ten COVID-19 phenotypes from nationwide linked electronic health records (EHR) using an extensible framework.
Referências	THYGESEN, J. H. COVID-19 trajectories among 57 million adults in England: a cohort study using electronic health records. **The Lancet. Digital health** [United Kingdom], p. 16, June 8, 2022. DOI: 10.1016/S2589-7500(22)00091-7. Disponível em: https://www.thelancet.com/journals/landig/article/PIIS2589-7500(22)00091-7/fulltext. Acesso em: 10 jun. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2589-7500%2822%2900091-7

Título	Risk of severe COVID-19 outcomes associated with immune-mediated inflammatory diseases and immune modifying therapies: a nationwide cohort study in the OpenSAFELY platform
Autor(es)	Brian MacKenna, Nicholas A Kennedy, Amir Mehrkar, Anna Rowan, James Galloway, Julian Matthewman, Kathryn E Mansfield, Katie Bechman, Mark Yates, Jeremy Brown, Anna Schultze, Sam Norton, Alex J Walker, Caroline E Morton, David Harrison, Krishnan Bhaskaran, Christopher T Rentsch, Elizabeth Williamson, Richard Croker, Seb Bacon, George Hickman, Tom Ward, Simon Davy, Amelia Green, Louis Fisher, William Hulme, Chris Bates, Helen J Curtis, John Tazare, Rosalind M Eggo, David Evans, Peter Inglesby, Jonathan Cockburn, Helen I McDonald, Laurie A Tomlinson, Rohini Mathur, Angel Y S Wong, Harriet Forbes, John Parry, Frank Hester, Sam Harper, Ian J Douglas, Liam Smeeth, Charlie W Lees, Stephen J W Evans, Ben Goldacre†, Catherine H Smith, Sinéad M Langan
Resumo	The risk of severe COVID-19 outcomes in people with immune-mediated inflammatory diseases and on immune-modifying drugs might not be fully mediated by comorbidities and might vary by factors such as ethnicity. We aimed to assess the risk of severe COVID-19 in adults with immune-mediated inflammatory diseases and in those on immune-modifying therapies.
Referências	MACKENNA, B. *et al.* Risk of severe COVID-19 outcomes associated with immune-mediated inflammatory diseases and immune-modifying therapies: a nationwide cohort study in the OpenSAFELY platform. **The Lancet. Rheumatology**, [United Kingdom], June 8, 2022. Disponível em: https://www.thelancet.com/journals/lanrhe/article/PIIS2665-9913(22)00098-4/fulltext. Acesso em: 10 jun. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2665-9913%2822%2900098-4

Título	Association between COVID-19 booster vaccination and omicron infection in a highly vaccinated cohort of players and staff in the National Basketball Association
Autor(es)	Caroline G. Tai, Lisa L. Maragakis, Sarah Connolly, John DiFiori, Deverick J. Anderson, Yonatan H. Grad, Christina DeFilippo Mack
Resumo	Evaluation of COVID-19 vaccine booster effectiveness is essential as new variants of SARS-CoV-2 emerge. Data support the effectiveness of booster doses in preventing severe disease and hospitalization; however, the association with reducing incident SARS-CoV-2 infections is not clear. We compared the incidence of SARS-CoV-2 infection in players and staff of the National Basketball Association (NBA) who did vs those who did not receive a booster dose.
Referências	TAI, C. G. *et al.* Association between COVID-19 booster vaccination and omicron infection in a highly vaccinated cohort of players and staff in the National Basketball Association. **JAMA**, [United States], June 2, 2022. Disponível em: https://doi.org/10.1001/jama.2022.9479. Acesso em: 10 jun. 2022.
Fonte	https://jamanetwork.com/journals/jama/fullarticle/2793169

Título	Association of COVID-19 vaccination during pregnancy with incidence of SARS-CoV-2 infection in infants
Autor(es)	Ellen Øen Carlsen, ; Maria C. Magnus, Laura Oakley, Deshayne B. Fell, Margrethe Greve-Isdahl, Jonas Minet Kinge, Siri E. Håberg
Resumo	Pregnant women are recommended to receive COVID-19 vaccination to reduce risk of severe COVID-19. Whether vaccination during pregnancy also provides passive protection to infants after birth remains unclear.To determine whether COVID-19 vaccination in pregnancy was associated with reduced risk of COVID-19 in infants up to age 4 months during COVID-19 pandemic periods dominated by Delta and Omicron variants.This nationwide, register-based cohort study included all live-born infants born in Norway between September 1, 2021, and February 28, 2022.Maternal messenger RNA COVID-19 vaccination during second or third trimester compared with no vaccination before or during pregnancy.The risk of a positive polymerase chain reaction test result for SARS-CoV-2 during an infant's first 4 months of life by maternal vaccination status during pregnancy with either dose 2 or 3 was estimated, as stratified by periods dominated by the Delta variant (between September 1 and December 31, 2021) or Omicron variant (after January 1, 2022, to the end of follow-up on April 4, 2022). A Cox proportional hazard regression was used, adjusting for maternal age, parity, education, maternal country of birth, and county of residence.Of 21 643 live-born infants, 9739 (45.0%) were born to women who received a second or third dose of a COVID-19 vaccine during pregnancy. The first 4 months of life incidence rate of a positive test for SARS-CoV-2 was 5.8 per 10 000 follow-up days. Infants of mothers vaccinated during pregnancy had a lower risk of a positive test compared with infants of unvaccinated mothers and lower risk during the Delta variant–dominated period (incidence rate, 1.2 vs 3.0 per 10 000 follow-up days; adjusted hazard ratio, 0.29; 95% CI, 0.19-0.46) compared with the Omicron period (incidence rate, 7.0 vs 10.9 per 10 000 follow-up days; adjusted hazard ratio, 0.67; 95% CI, 0.57-0.79).The results of this Norwegian population-based cohort study suggested a lower risk of a positive test for SARS-CoV-2 during the first 4 months of life among infants born to mothers who were vaccinated during pregnancy. Maternal COVID-19 vaccination

	may provide passive protection to young infants, for whom COVID-19 vaccines are currently not available.
Referências	CARLSEN, E. Ø. *et al.* Association of COVID-19 vaccination during pregnancy with incidence of SARS-CoV-2 infection in infants**.** **JAMA internal medicine**, [United States], june 1, 2022. DOI: 10.1001/jamainternmed.2022.2442 . Disponível em: https://doi.org/10.1001/jamainternmed.2022.2442. Acesso em: 10 jun. 2022.
Fonte	https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2793109

Título	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection and pregnancy in sub-saharan Africa: a 6-country retrospective cohort analysis
Autor(es)	Jean B. Nachega, Nadia A. Sam-Agudu, Rhoderick N. Machekano, Philip J. Rosenthal, Sonja Schell, Liesl de Waard, Adrie Bekker, Onesmus W. Gachuno, John Kinuthia, Nancy Mwongeli, Samantha Budhram, Valerie Vannevel, Priya Somapillay, Hans W. Prozesky, Jantjie Taljaard, Arifa Parker, Elizabeth Agyare, Akwasi Baafuor Opoku, Aminatu Umar Makarfi, Asara M. Abdullahi, Chibueze Adirieje, Daniel Katuashi Ishoso, Michel Tshiasuma Pipo, Marc B. Tshilanda, Christian Bongo-Pasi Nswe, John Ditekemena, Lovemore Nyasha Sigwadhi, Peter S. Nyasulu, Michel P. Hermans, Musa Sekikubo, Philippa Musoke, Christopher Nsereko, Evans K. Agbeno, Michael Yaw Yeboah, Lawal W. Umar, Mukanire Ntakwinja, Denis M. Mukwege, Etienne Kajibwami Birindwa, Serge Zigabe Mushamuka, Emily R. Smith, Edward J. Mills, John Otokoye Otshudiema, Placide Mbala-Kingebeni, Jean-Jacques Muyembe Tamfum, Alimuddin Zumla, Aster Tsegaye, Alfred Mteta, Nelson K. Sewankambo, Fatima Suleman, Prisca Adejumo, Jean R. Anderson, Emilia V. Noormahomed, Richard J. Deckelbaum, Jeffrey S. A. Stringer, Abdon Mukalay, Taha E. Taha, Mary Glenn Fowler, Judith N. Wasserheit, Refiloe Masekela, John W. Mellors, Mark J. Siedner, Landon Myer, Andre-Pascal Kengne, Marcel Yotebieng, Lynne M. Mofenson, Eduard Langenegger, for the AFREhealth Research Collaboration on COVID-19 and Pregnancy
Resumo	Few data are available on COVID-19 outcomes among pregnant women in sub-Saharan Africa (SSA), where high-risk comorbidities are prevalent. We investigated the impact of pregnancy on SARS-CoV-2 infection and of SARS-CoV-2 infection on pregnancy to generate evidence for health policy and clinical practice.We conducted a 6-country retrospective cohort study among hospitalized women of childbearing age between 1 March 2020 and 31 March 2021. Exposures were (1) pregnancy and (2) a positive SARS-CoV-2 RT-PCR test. The primary outcome for both analyses was intensive care unit (ICU) admission. Secondary outcomes included supplemental oxygen requirement, mechanical ventilation, adverse birth outcomes, and in-hospital mortality. We used log-binomial regression to estimate the effect between pregnancy and SARS-CoV-2 infection. Factors associated with mortality were evaluated using competing-risk proportional subdistribution hazards models.Our analyses included 1315 hospitalized women: 510 pregnant women with SARS-CoV-2, 403 nonpregnant women with SARS-CoV-2, and 402 pregnant women without SARS-CoV-2 infection. Among women with SARS-CoV-2 infection, pregnancy was associated with increased risk for ICU admission (adjusted risk

Resumo	ratio [aRR]: 2.38; 95% CI: 1.42–4.01), oxygen supplementation (aRR: 1.86; 95% CI: 1.44–2.42), and hazard of in-hospital death (adjusted sub-hazard ratio [aSHR]: 2.00; 95% CI: 1.08–3.70). Among pregnant women, SARS-CoV-2 infection increased the risk of ICU admission (aRR: 2.0; 95% CI: 1.20–3.35), oxygen supplementation (aRR: 1.57; 95% CI: 1.17–2.11), and hazard of in-hospital death (aSHR: 5.03; 95% CI: 1.79–14.13).Among hospitalized women in SSA, both SARS-CoV-2 infection and pregnancy independently increased risks of ICU admission, oxygen supplementation, and death. These data support international recommendations to prioritize COVID-19 vaccination among pregnant women.
Referências	NACHEGA, J. B. *et al.* Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection and pregnancy in sub-saharan Africa: a 6-country retrospective cohort analysis. **Clinical infectious diseases**, [United States], p. ciac294, June 8, 2022. DOI: 10.1093/cid/ciac294. Disponível em: https://doi.org/10.1093/cid/ciac294. Acesso em: 10 jun. 2022.
Fonte	https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciac294/6603567?searchresult=1

Título	How are vaccines being adapted to meet the changing face of SARS-CoV-2?
Autor(es)	Chris Stokel-Walker
Resumo	It seems like a lifetime ago, but the first clinically approved vaccine against SARS-CoV-2 was given to a patient just 17 months ago, on 8 December 2020. Since that first vaccine dose, developed by the drug company Pfizer, a number of vaccines have been developed. Ten are approved by the World Health Organization, and scores more are still undergoing trials...
Referências	STOKEL-WALKER, C. How are vaccines being adapted to meet the changing face of SARS-CoV-2?. **BMJ**, [United Kingdom], v. 377, June 1, p. o1257, 2022. DOI: 10.1136/bmj.o1257. Disponível em: https://www.bmj.com/content/377/bmj.o1257. Acesso em: 10 jun. 2022.
Fonte	https://www.bmj.com/content/377/bmj.o1257

Título	Long COVID after breakthrough SARS-CoV-2 infection
Autor(es)	Ziyad Al-Aly, Benjamin Bowe, Yan Xie
Resumo	The post-acute sequelae of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection—also referred to as Long COVID—have been described, but whether breakthrough SARS-CoV-2 infection (BTI) in vaccinated people results in post-acute sequelae is not clear. In this study, we used the US Department of Veterans Affairs national healthcare databases to build a cohort of 33,940 individuals with BTI and several controls of people without evidence of SARS-CoV-2 infection, including contemporary (n = 4,983,491), historical (n = 5,785,273) and vaccinated (n = 2,566,369) controls. At 6 months after infection, we show that, beyond the first 30 days of illness, compared to contemporary controls, people with BTI exhibited a higher risk of death (hazard ratio (HR) = 1.75, 95% confidence interval (CI): 1.59, 1.93) and incident post-acute sequelae (HR = 1.50, 95% CI: 1.46, 1.54), including cardiovascular, coagulation and hematologic, gastrointestinal, kidney, mental health, metabolic, musculoskeletal and neurologic disorders. The results were consistent in comparisons versus the historical and vaccinated controls. Compared to people with SARS-CoV-2 infection who were not previously vaccinated (n = 113,474), people with BTI exhibited lower risks of death (HR = 0.66, 95% CI: 0.58, 0.74) and incident post-acute sequelae (HR = 0.85, 95% CI: 0.82, 0.89). Altogether, the findings suggest that vaccination before infection confers only partial protection in the post-acute phase of the disease; hence, reliance on it as a sole mitigation strategy may not optimally reduce long-term health consequences of SARS-CoV-2 infection. The findings emphasize the need for continued optimization of strategies for primary prevention of BTI and will guide development of post-acute care pathways for people with BTI.
Referências	AL-ALY, Z.; BOWE, B.; XIE, Y. Long COVID after breakthrough SARS-CoV-2 infection. **Nature medicine**, [United States], p. 1–7, May 25, 2022. DOI: 10.1038/s41591-022-01840-0. Disponível em: https://www.nature.com/articles/s41591-022-01840-0. Acesso em: 10 jun. 2022.
Fonte	https://www.nature.com/articles/s41591-022-01840-0?utm_source=sn_RM&utm_medium=referral&utm_campaign=MLSR_ALLPR_AWA1_GL_PMLS_JLAUD_CrnvrsLP

Título	Trilogy of COVID-19: Infection, Vaccination, and Immunosuppression
Autor(es)	Dinesh Mohanraj, Alison Whitelegg
Resumo	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is the causative respiratory pathogen responsible for coronavirus disease 2019 (COVID-19). In 2020, the power of open science was visible to all, as novel vaccinology led to rapid establishment of vaccine clinical trials, and subsequent authorization of SARS-CoV-2 at an unprecedented pace. This evoked rapid deployment of SARS-CoV-2 vaccines and booster doses to keep with the ever-changing landscape of SARS-CoV-2. In this review, we provide an overview of vaccine efficacy studies, which have been well characterized in healthy individuals. Nevertheless, vaccine efficacy within the immunosuppressed is less well characterized, as these individuals were omitted from initial efficacy studies. Consequently, vaccine-induced responses in this group are relatively unknown. Currently, limited evidence investigating vaccine efficacy within the immunosuppressed is available. Here, we provide an overview of SARS-CoV-2 infection and associated pathogenesis. Furthermore, we undertake a critical analysis of observed vaccine responses from clinical studies, conducted in healthy and immunosuppressed populations. Whilst vaccine deployment has curbed mortality, there are significant challenges that lie ahead. This includes correlating vaccine responses with protective immunity and ensuring that global vaccine equity is met.
Referências	MOHANRAJ, D.; WHITELEGG, A. Trilogy of COVID-19: Infection, Vaccination, and Immunosuppression. **International archives of allergy and immunology**, [Switzerland], p. 1–19, 2022. DOI: 10.1159/000524056. Disponível em: https://www.karger.com/Article/FullText/524056. Acesso em: 10 jun. 2022.
Fonte	https://www.karger.com/Article/Pdf/524056

Título	Cryo-EM structures of SARS-CoV-2 Omicron BA.2 spike
Autor(es)	Victoria Stalls, Jared Lindenberger, Sophie M-C. Gobeil, Rory Henderson, Rob Parks, Maggie Barr, Margaret Deyton, Mitchell Martin, Katarzyna Janowska, Xiao Huang, Aaron May, Micah Speakman, Esther Beaudoin, Bryan Kraft, Xiaozhi Lu, Robert J. Edwards, Amanda Eaton, David C. Montefiori, Wilton Williams, Kevin O. Saunders, Kevin Wiehe, Barton F. Haynes, Priyamvada Acharya
Resumo	The SARS-CoV-2 Omicron BA.2 sub-lineage has gained in proportion relative to BA.1. As spike (S) protein variations may underlie differences in their pathobiology, here we determine cryo-EM structures of the BA.2 S ectodomain and compare these to previously determined BA.1 S structures. BA.2 Receptor Binding Domain (RBD) mutations induce remodeling of the RBD structure resulting in tighter packing and improved thermostability. Interprotomer RBD interactions are enhanced in the closed (or 3-RBD-down) BA.2 spike, while the fusion peptide is less accessible to antibodies than in BA.1. Binding and pseudovirus neutralization assays reveal extensive immune evasion while defining epitopes of two outer RBD face binding antibodies, DH1044 and DH1193, that neutralize both BA.1 and BA.2. Taken together, our results indicate that stabilization of the closed state through interprotomer RBD-RBD packing is a hallmark of the Omicron variant, and show differences in key functional regions in the BA.1 and BA.2 S proteins.
Referências	STALLS, V. *et al.* Cryo-EM structures of SARS-CoV-2 Omicron BA.2 spike. **Cell reports**, [United States], June 7, 2022. DOI: 10.1016/j.celrep.2022.111009. Disponível em: https://www.cell.com/cell-reports/abstract/S2211-1247(22)00798-7. Acesso em: 10 jun. 2022.
Fonte	https://www.cell.com/action/showPdf?pii=S2211-1247%2822%2900798-7

Título	A large outbreak of COVID-19 in a UK prison, October 2020 to April 2021
Autor(es)	James P. Adamson, Christopher Smith, Nicole Pacchiarini, Thomas Richard Connor, Janet Wallsgrove, Ian Coles, Clare Frost, Angharad Edwards, Jaisi Sinha, Catherine Moore, Steph Perrett, Christie Craddock, Clare Sawyer, Alison Waldram, Alicia Barrasa, Daniel Rh. Thomas , Philip Daniels, Heather Lewis
Resumo	Prisons are susceptible to outbreaks. Control measures focusing on isolation and cohorting negatively affect wellbeing. We present an outbreak of COVID-19 in a large male prison in Wales, UK, October 2020 to April 2021, and discuss control measures. We gathered case-information, including demographics, staff-residence postcode, resident cell number, work areas/dates, test results, staff interview dates/notes and resident prisontransfer dates. Epidemiological curves were mapped by prison location. Control measures included isolation (exclusion from work or cell-isolation), cohorting (new admissions and work-area groups), asymptomatic testing (case-finding), removal of communal dining and movement restrictions. Facemask use and enhanced hygiene were already in place. Whole genome sequencing (WGS) and interviews determined genetic relationship between cases plausibility of transmission. Of 453 cases, 53% (n=242) were staff, most aged 25-34 years (11.5% females, 27.15% males) and symptomatic (64%). Crude attack-rate was higher in staff (29%, 95%CI: 26-64%) than in residents (12%, 95%CI: 9-15%). Whole genome sequencing can help differentiate multiple introductions from person-toperson transmission in prisons. It should be introduced alongside asymptomatic testing as soon as possible to control prison outbreaks. Timely epidemiological investigation, including data visualisation, allowed dynamic risk assessment and proportionate control measures, minimising reduction in resident welfare.
Referências	ADAMSON, J. P. *et al.* A large outbreak of COVID-19 in a UK prison, October 2020 to April 2021. **Epidemiology and Infection**, [United Kingdom], p. 1–27, May 30, 2022. DOI: 10.1017/S0950268822000991. Disponível em: https://www.cambridge.org/core/product/identifier/S0950268822000991/type/journal_article. Acesso em: 3 junho 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/F39B5AD0871FF72E434957A75CA3FD91/S0950268822000991a.pdf/large_outbreak_of_covid19_in_a_uk_prison_october_2020_to_april_2021.pdf

Título	COVID-19 in the 47 countries of the WHO African region: a modelling analysis of past trends and future patterns
Autor(es)	Joseph Waogodo Cabore, Humphrey Cyprian Karamagi, Hillary Kipchumba Kipruto, Joseph Kyalo Mungatu, James Avoka Asamani, Benson Droti, Regina Titi-ofei, Aminata Binetou Wahebine Seydi, Solyana Ngusbrhan Kidane, Thierno Balde, Abdou Salam Gueye, Lindiwe Makubalo, Matshidiso R Moeti
Resumo	COVID-19 has affected the African region in many ways. We aimed to generate robust information on the transmission dynamics of COVID-19 in this region since the beginning of the pandemic and throughout 2022.
Referências	CABORE, J. W. *et al.* COVID-19 in the 47 countries of the WHO African region: a modelling analysis of past trends and future patterns. **The Lancet. Global health**, [Netherlands], June 1, 2022. DOI: 10.1016/S2214-109X(22)00233-9. Disponível em: https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(22)00233-9/fulltext. Acesso em: 3 jun. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2214-109X%2822%2900233-9

Título	Changes and correlates of screen time in adults and children during the COVID-19 pandemic: a systematic review and meta-analysis
Autor(es)	Mike Trott, Robin Driscoll, Enrico Irlado, Shahina Pardhan
Resumo	Screen time has increased as a result of the COVID-19 pandemic, and several correlates have been associated with these increases. These changes, however, have not been aggregated. It was the aim of this review to (a) aggregate changes in screen time in adults and children, and (b) report on variables in relation to screen time during the COVID-19 pandemic.
Referências	TROTT, M. *et al.* Changes and correlates of screen time in adults and children during the COVID-19 pandemic: a systematic review and meta-analysis. **eClinicalMedicine**, [Netherlands], v. 48, p. 101452, May 20, 2022. DOI: 10.1016/j.eclinm.2022.101452. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S2589537022001821. Acesso em: 3 junho 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2589-5370%2822%2900182-1

Título	Hyper inflammatory syndrome following COVID-19 mRNA vaccine in children
Autor(es)	Naïm Ouldali, Haleh Bagheri, Francesco Salvo, Denise Antona, Antoine Pariente, Claire Leblanc, Martine Tebacher, Corinne Levy, Robert Cohen, Etienne Javouhey, Brigitte Bader-Meunier, Caroline Ovaert, Sylvain Renolleau, Veronique Hentgen, Isabelle Kone-Paut, Nina Deschamps, Loïc De Pontual, Xavier Iriart, Christelle Gras-Le Guen, Francois Angoulvant, Alexandre Belot
Resumo	Multisystem inflammatory syndrome in children (MIS-C) is the most severe clinical entity associated with pediatric SARS-CoV-2 infection with a putative role of the spike protein into the immune system activation. Whether COVID-19 mRNA vaccine can induce this complication in children is unknown. We aimed to assess the risk of hyper-inflammatory syndrome following COVID-19 mRNA vaccine in children. Methods: We conducted a post-authorization national population-based surveillance using the French enhanced pharmacovigilance surveillance system for COVID-19 vaccines. All cases of suspected hyper-inflammatory syndrome following COVID-19 mRNA vaccine in 12–17-year-old children between June 15th, 2021 and January 1st, 2022, were reported. Cases were reviewed according to WHO criteria for MIS-C. The reporting rate of this syndrome was compared to the MIS-C rate per 1,000,000 12–17-year-old children infected by SARS-CoV-2. Findings: Up to January 2022, 8,113,058 COVID-19 mRNA vaccine doses were administered to 4,079,234 12–17-year-old children. Among them, 12 presented a hyper-inflammatory syndrome with multisystemic involvement. Main clinical features included male predominance (10/12, 83%), cardiac involvement (10/12, 83%), digestive symptoms (10/12, 83%), coagulopathy (7/12, 58%), cytolytic hepatitis (6/12, 50%), and shock (5/12, 42%). 4/12 (33%) required intensive care unit transfer, and 3/12 (25%) hemodynamic support. All cases recovered. In eight cases, no evidence of previous SARS-CoV-2 infection was found. The reporting rate was 1.5 (95%CI [0.8; 2.6]) per 1,000,000 doses injected, i.e. 2.9 (95%CI [1.5; 5.1]) per 1,000,000 12–17-year-old vaccinated children. As a comparison, 113 MIS-C (95%CI [95; 135]) occurred per 1,000,000 12–17-year-old children infected by SARS-CoV-2. Interpretation: Very few cases of hyper-inflammatory syndrome with multi-organ involvement occurred following COVID-19 mRNA vaccine in 12–17-year-old children. The low reporting rate of this syndrome,

	compared to the rate of post-SARS-CoV-2 MIS-C in the same age-group, largely supports the vaccination in a context of an important circulation of SARS-CoV-2.
Referências	OULDALI, N. *et al.* Hyper inflammatory syndrome following COVID-19 mRNA vaccine in children: a national post-authorization pharmacovigilance study. **The Lancet regional health. Europe**, [United Kingdom], p. 100393, Apr. 29, 2022. DOI: 10.1016/j.lanepe.2022.100393. Disponível em: https://www.sciencedirect.com/science/article/pii/S2666776222000862. Acesso em: 3 junho 2022.
Fonte	https://reader.elsevier.com/reader/sd/pii/S2666776222000862?token=9767BD665E80A05D8C06550292C7B61A15885CCE7D41B0B0EB667694F3C9B4EA042B659502D7420E60DF5591FEDE70BA&originRegion=us-east-1&originCreation=20220602181442

Título	Association of Zip Code Vaccination Rate With COVID-19 Mortality in Chicago, Illinois
Autor(es)	Sharon Zeng, Kenley M. Pelzer, Robert D. Gibbons, Monica E. Peek, William F. Parker
Resumo	There has been large geographic inequity in vaccination coverage across Chicago, Illinois, with higher vaccination rates in zip codes with residents who predominantly have high incomes and are White.To determine the association between inequitable zip code–level vaccination coverage and COVID-19 mortality in Chicago.This retrospective cohort study used Chicago Department of Public Health vaccination and mortality data and Cook County Medical Examiner mortality data from March 1, 2020, through November 6, 2021, to assess the association of COVID-19 mortality with zip code–level vaccination rates. Data were analyzed from June 1, 2021, to April 13, 2022.Zip code–level first-dose vaccination rates before the Alpha and Delta waves of COVID-19.The primary outcome was deaths from COVID-19 during the Alpha and Delta waves. The association of a marginal increase in zip code–level vaccination rate with weekly mortality rates was estimated with a mixed-effects Poisson regression model, and the total number of preventable deaths in the least vaccinated quartile of zip codes was estimated with a linear difference-in-difference design.The study population was 2 686 355 Chicago residents in 52 zip codes (median [IQR] age 34 [32-38] years; 1 378 658 [51%] women; 773 938 Hispanic residents [29%]; 783 916 non-Hispanic Black residents [29%]; 894 555 non-Hispanic White residents [33%]). Among residents in the least vaccinated quartile, 80% were non-Hispanic Black, compared with 8% of residents identifying as non-Hispanic Black in the most vaccinated quartile (P < .001). After controlling for age distribution and recovery from COVID-19, a 10–percentage point increase in zip code–level vaccination 6 weeks before the peak of the Alpha wave was associated with a 39% lower relative risk of death from COVID-19 (incidence rate ratio [IRR], 0.61 [95% CI, 0.52-0.72]). A 10–percentage point increase in zip code vaccination rate 6 weeks before the peak of the Delta wave was associated with a 24% lower relative risk of death (IRR, 0.76 [95% CI, 0.66-0.87]). The difference-in-difference estimate was that 119 Alpha wave deaths (72% [95% CI, 63%-81%]) and 108

Resumo	Delta wave deaths (75% [95% CI, 66%-84%]) might have been prevented in the least vaccinated quartile of zip codes if it had had the vaccination coverage of the most vaccinated quartile.These findings suggest that low zip code–level vaccination rates in Chicago were associated with more deaths during the Alpha and Delta waves of COVID-19 and that inequitable vaccination coverage exacerbated existing racial and ethnic disparities in COVID-19 deaths.
Referências	ZENG, S. *et al.* Association of Zip Code Vaccination Rate With COVID-19 Mortality in Chicago, Illinois. **JAMA network open**, [United States], v. 5, n. 5, p. e2214753, May 27, L2022. DOI: 10.1001/jamanetworkopen.2022.14753. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.14753. Acesso em: 3 junho 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2792748

Título	SARS-CoV-2 attack rate and population immunity in southern New England, March 2020 to May 2021
Autor(es)	Thu Nguyen-Anh Tran, Nathan B. Wikle, Fuhan Yang, Haider Inam, Scott Leighow, Bethany Gentilesco, Philip Chan, Emmy Albert, Emily R. Strong, Justin R. Pritchard, William P. Hanage, Ephraim M. Hanks; Forrest W. Crawford, Maciej F. Boni
Resumo	**Importance** In emergency epidemic and pandemic settings, public health agencies need to be able to measure the population-level attack rate, defined as the total percentage of the population infected thus far. During vaccination campaigns in such settings, public health agencies need to be able to assess how much the vaccination campaign is contributing to population immunity; specifically, the proportion of vaccines being administered to individuals who are already seropositive must be estimated. **Objective** To estimate population-level immunity to SARS-CoV-2 through May 31, 2021, in Rhode Island, Massachusetts, and Connecticut. **Design, Setting, and Participants** This observational case series assessed cases, hospitalizations, intensive care unit occupancy, ventilator occupancy, and deaths from March 1, 2020, to May 31, 2021, in Rhode Island, Massachusetts, and Connecticut. Data were analyzed from July 2021 to November 2021. **Exposures** COVID-19–positive test result reported to state department of health. **Main Outcomes and Measures** The main outcomes were statistical estimates, from a bayesian inference framework, of the percentage of individuals as of May 31, 2021, who were (1) previously infected and vaccinated, (2) previously uninfected and vaccinated, and (3) previously infected but not vaccinated. **Results** At the state level, there were a total of 1 160 435 confirmed COVID-19 cases in Rhode Island, Massachusetts, and Connecticut. The median age among individuals with confirmed COVID-19 was 38 years. In autumn 2020, SARS-CoV-2 population immunity (equal to the attack rate at that point) in these states was less than 15%, setting the stage for a large epidemic wave during winter 2020 to 2021. Population immunity estimates for May 31, 2021, were 73.4% (95% credible interval [CrI], 72.9%-74.1%) for Rhode Island, 64.1% (95% CrI, 64.0%-64.4%) for Connecticut, and 66.3% (95% CrI, 65.9%-66.9%) for Massachusetts, indicating that more than 33% of residents in these states were fully susceptible to infection when the Delta variant began spreading in July 2021. Despite high vaccine coverage in these states, population immunity in summer 2021 was lower than planned owing to an estimated 34.1% (95% CrI, 32.9%-35.2%) of vaccines in Rhode Island, 24.6% (95% CrI, 24.3%-25.1%) of vaccines in Connecticut, and 27.6% (95% CrI, 26.8%-28.6%) of vaccines in

Resumo	Massachusetts being distributed to individuals who were already seropositive. **Conclusions and Relevance** These findings suggest that future emergency-setting vaccination planning may have to prioritize high vaccine coverage over optimized vaccine distribution to ensure that sufficient levels of population immunity are reached during the course of an ongoing epidemic or pandemic.
Referências	TRAN, T. N.-A. *et al.* SARS-CoV-2 attack rate and population immunity in southern New England, March 2020 to May 2021. **JAMA network open**, [United States], v. 5, n. 5, p. e2214171, May 26, 2022. DOI: 10.1001/jamanetworkopen.2022.14171. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.14171. Acesso em: 3 junho 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2792721

Título	Transmission and infectious SARS-CoV-2 shedding kinetics in vaccinated and unvaccinated individuals
Autor(es)	Jiwon Jung, Ji Yeun Kim, Heedo Park, Sunghee Park, Joon Seo Lim, So Yun Lim, Seongman Bae, Young-Ju Lim, Eun Ok Kim, Jineui Kim, Man-Seong Park, Sung-Han Kim
Resumo	Data are limited on whether patients with breakthrough COVID-19 infection have the potential to significantly contribute to the spread of SARS-CoV-2.To compare the secondary attack rate and infectious viral shedding kinetics of SARS-CoV-2 between fully vaccinated individuals (breakthrough infection group) and partially or unvaccinated individuals (nonbreakthrough infection group).This cohort study assessed secondary transmission by analyzing the epidemiologic data of health care workers, inpatients, and caregivers diagnosed with COVID-19 during hospitalization or residence in a tertiary care hospital between March 1, 2020, and November 6, 2021. To evaluate viral shedding kinetics, the genomic RNA of SARS-CoV-2 was measured using polymerase chain reaction and performed virus culture from daily saliva samples of individuals with mild COVID-19 infected with the Delta variant who were isolated in a community facility in Seoul, South Korea, between July 20 and August 20, 2021.COVID-19 vaccination.The secondary attack rate and infectious viral shedding kinetics according to COVID-19 vaccination status.A total of 173 individuals (median [IQR] age, 47 [32-59] years; 100 female [58%]) with COVID-19 were included in the secondary transmission study, of whom 50 (29%) had a breakthrough infection. Secondary transmission was significantly less common in the breakthrough infection group than in the nonbreakthrough infection group (3 of 43 [7%] vs 29 of 110 [26%]; P = .008). In the viral shedding kinetics study, 45 patients (median age, 37 years [IQR, 25-49 years]; 14 female [31%]) infected with the Delta variant were included, of whom 6 (13%) were fully vaccinated and 39 (87%) were partially or unvaccinated. Although the initial genomic viral load was comparable between the 2 groups, viable virus in cell culture was detected for a notably longer duration in partially vaccinated (8 days after symptom onset) or unvaccinated (10 days after symptom onset) individuals compared with fully vaccinated individuals (4 days after symptom onset).In this cohort study, although the initial genomic viral load was similar between vaccinated and unvaccinated individuals,

Resumo	fully vaccinated individuals had a shorter duration of viable viral shedding and a lower secondary attack rate than partially vaccinated or unvaccinated individuals. Data from this study provide important evidence that despite the possibility of breakthrough infections, COVID-19 vaccinations remain critically useful for controlling the spread of SARS-CoV-2.
Referências	JUNG, J. *et al.* Transmission and Infectious SARS-CoV-2 Shedding Kinetics in Vaccinated and Unvaccinated Individuals. **JAMA network open**, [United States], v. 5, n. 5, p. e2213606, May 24, 2022. DOI: 10.1001/jamanetworkopen.2022.13606. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.13606. Acesso em: 3 junho 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2792598

Título	Effectiveness of heterologous and homologous covid-19 vaccine regimens: living systematic review with network meta-analysis
Autor(es)	Wing Ying Au, Peter Pak-Hang Cheung
Resumo	Objective To evaluate the effectiveness of heterologous and homologous covid-19 vaccine regimens with and without boosting in preventing covid-19 related infection, hospital admission, and death. Design Living systematic review and network meta-analysis. Data sources World Health Organization covid-19 databases, including 38 sources of published studies and preprints. Study selection Randomised controlled trials, cohort studies, and case-control studies. Methods 38 WHO covid-19 databases were searched on a weekly basis from 8 March 2022. Studies that assessed the effectiveness of heterologous and homologous covid-19 vaccine regimens with or without a booster were identified. Studies were eligible when they reported the number of documented, symptomatic, severe covid-19 infections, covid-19 related hospital admissions, or covid-19 related deaths among populations that were vaccinated and unvaccinated. The primary measure was vaccine effectiveness calculated as 1−odds ratio. Secondary measures were surface under the cumulative ranking curve (SUCRA) scores and the relative effects for pairwise comparisons. The risk of bias was evaluated by using the risk of bias in non-randomised studies of interventions (ROBINS-I) tool for all cohort and case-control studies. The Cochrane risk of bias tool (version 2; ROB-2) was used to assess randomised controlled trials. Results The first round of the analysis comprised 53 studies. 24 combinations of covid-19 vaccine regimens were identified, of which a three dose mRNA regimen was found to be the most effective against asymptomatic and symptomatic covid-19 infections (vaccine effectiveness 96%, 95% credible interval 72% to 99%). Heterologous boosting using two dose adenovirus vector vaccines with one mRNA vaccine has a satisfactory vaccine effectiveness of 88% (59% to 97%). A homologous two dose mRNA regimen has a vaccine effectiveness of 99% (79% to 100%) in the prevention of severe covid-19 infections. Three dose mRNA is the most effective in reducing covid-19 related hospital admission (95%, 90% to 97%). The vaccine effectiveness against death in people who received

Resumo	three doses of mRNA vaccine remains uncertain owing to confounders. In the subgroup analyses, a three dose regimen is similarly effective in all age groups, even in the older population (≥65 years). A three dose mRNA regimen works comparably well in patients who are immunocompromised and those who are non-immunocompromised. Homologous and heterologous three dose regimens are effective in preventing infection by covid-19 variants (alpha, delta, and omicron).Conclusion An mRNA booster is recommended to supplement any primary vaccine course. Heterologous and homologous three dose regimens work comparably well in preventing covid-19 infections, even against different variants. The effectiveness of three dose vaccine regimens against covid-19 related death remains uncertain. Systematic review registration This review was not registered. The protocol is included in the supplementary document.Readers' note This article is a living systematic review that will be updated to reflect emerging evidence. Updates may occur for up to two years from the date of original publication.
Referências	WING, Y. A., PETER, P. C. Effectiveness of heterologous and homologous covid-19 vaccine regimens: living systematic review with network meta-analysis. **BMJ**, [United Kingdom], v. 377, p. e069989, May 31, 2022. DOI: 10.1136/bmj-2022-069989. Disponível em: https://www.bmj.com/content/377/bmj-2022-069989. Acesso em: 3 junho 2022.
Fonte	https://www.bmj.com/content/377/bmj-2022-069989

Título	The magnitude and timing of recalled immunity after breakthrough infection is shaped by SARS-CoV-2 variants
Autor(es)	Marios Koutsakos, Wen Shi Lee, Arnold Reynaldi , Hyon-Xhi Tan, Grace Gare, Paul Kinsella, Kwee Chin Liew, George Taiaroa, Deborah A. Williamson, Helen E. Kent , Eva Stadler, Deborah Cromer , David S. Khoury , Adam K. Wheatley, Jennifer A. Juno, Miles P. Davenport, Stephen J. Kent
Resumo	Vaccination against SARS-CoV-2 protects from infection and improves clinical outcomes in breakthrough infections, likely reflecting residual vaccine-elicited immunity and recall of immunological memory. Here, we defined the early kinetics of spike-specific humoral and cellular immunity after vaccination of seropositive individuals, and after Delta or Omicron breakthrough infection in vaccinated individuals. Early longitudinal sampling revealed the timing and magnitude of recall, with the phenotypic activation of B cells preceding an increase in neutralizing antibody titres. While vaccination of seropositive individuals resulted in robust recall of humoral and T cell immunity, recall of vaccine elicited responses was delayed and variable in magnitude during breakthrough infections, and depended on the infecting variant of concern. While the delayed kinetics of immune recall provides a potential mechanism for the lack of early control of viral replication, the recall of antibodies coincided with viral clearance and likely underpins the protective effects of vaccination against severe COVID-19.
Referências	KOUTSAKOS, M. *et al.* The magnitude and timing of recalled immunity after breakthrough infection is shaped by SARS-CoV-2 variants. **Immunity**, [United States], May 26, 2022. Disponível em: https://www.cell.com/immunity/abstract/S1074-7613(22)00238-2. Acesso em: 3 jun. 2022.
Fonte	https://www.cell.com/action/showPdf?pii=S1074-7613%2822%2900238-2

Título	SARS-CoV-2 Continuous Genetic Divergence and Changes in Multiplex RT-PCR Detection Pattern on Positive Retesting Median 150 Days after Initial Infection
Autor(es)	Dakai Liu , George D. Rodriguez , Hang-Yu Zhou , ORCID,Ye-Xiao Cheng, Xiaofeng Li , Wenwen Tang, Nishant Prasad, Chun-Cheng Chen , Vishnu Singh, Eric Konadu , Keither K. James, Maria F. Bahamon, Yvonne Chen, Sorana Segal-Maurer, Aiping Wu, William Harry Rodger
Resumo	Being in the epicenter of the COVID-19 pandemic, our lab tested 193,054 specimens for SARS-CoV-2 RNA by diagnostic multiplex reverse transcription polymerase chain reaction (mRT-PCR) starting in March 2020, of which 17,196 specimens resulted positive. To investigate the dynamics of virus molecular evolution and epidemiology, whole genome amplification (WGA) and Next Generation Sequencing (NGS) were performed on 9516 isolates. 7586 isolates with a high quality were further analyzed for the mutation frequency and spectrum. Lastly, we evaluated the utility of the mRT-PCR detection pattern among 26 reinfected patients with repeat positive testing three months after testing negative from the initial infection. Our results show a continuation of the genetic divergence in viral genomes. Furthermore, our results indicate that independent mutations in the primer and probe regions of the nucleocapsid gene amplicon and envelope gene amplicon accumulate over time. Some of these mutations correlate with the changes of detection pattern of viral targets of mRT-PCR. Our data highlight the significance of a continuous genetic divergence on a gene amplification-based assay, the value of the mRT-PCR detection pattern for complementing the clinical diagnosis of reinfection, and the potential for WGA and NGS to identify mutation hotspots throughout the entire viral genome to optimize the design of the PCR-based gene amplification assay.
Referências	DAKAI, L. *et al.* SARS-CoV-2 Continuous Genetic Divergence and Changes in Multiplex RT-PCR Detection Pattern on Positive Retesting Median 150 Days after Initial Infection. **International journal of molecular sciences**, [Switzerland], v. 23, n. 11, p. 6254, May 30, 2022. DOI: 10.3390/ijms23116254. Disponível em: https://www.mdpi.com/1422-0067/23/11/6254. Acesso em: 3 junho 2022.
Fonte	https://www.mdpi.com/1422-0067/23/11/6254

Título	Protective effect of a first SARS-CoV-2 infection from reinfection: a matched retrospective cohort study using PCR testing data in England
Autor(es)	Joanne Lacy , Anna Mensah , Ruth Simmons , Nick Andrews , M. Ruby Siddiqui , Antoaneta Bukasa , Shennae O'Boyle , Helen Campbell , Kevin Brown
Resumo	The duration of immunity after first SARS-CoV-2 infection and the extent to which prior immunity prevents reinfection is uncertain and remains an important question within the context of new variants. This is a retrospective population-based matched observational study where we identified the first PCR positive of primary SARS-CoV-2 infection cases test between 01 March 2020 and 30 September 2020. Each case was matched by age, sex, upper tier local authority of residence and testing route to one individual testing negative in the same week (controls) by PCR. After a 90-day pre-follow up period for cases and controls, any subsequent positive tests up to 31 December 2020 and deaths within 28 days of testing positive were identified, this encompassed an essentially vaccine-free period. We used a conditional logistic regression to analyse the results. There were 517,870 individuals in the matched cohort with 2,815 reinfection cases and 12,098 first infections. The protective effect of a prior SARS-CoV-2 PCR-positive episode was 78% (OR 0.22, 0.21-0.23). Protection rose to 82% (OR 0.18, 0.17-0.19) after a sensitivity analysis excluded 933 individuals with a first test between March and May and a subsequent positive test between June and September 2020. Amongst individuals testing positive by PCR during follow-up, reinfection cases had 77% lower odds of symptoms at the second episode (adjusted OR 0.23, 0.20-0.26) and 45% lower odds of dying in the 28 days after reinfection (adjusted OR 0.55, 0.42-0.71).
Referências	LACY, J. *et al.* Protective effect of a first SARS-CoV-2 infection from reinfection: a matched retrospective cohort study using PCR testing data in England. **Epidemiology & infection** [United Kingdoml], May 24, 2022. DOI: 10.1017/S0950268822000966. Disponível em: https://www.cambridge.org/core/journals/epidemiology-and-infection/article/protective-effect-of-a-first-sarscov2-infection-from-reinfection-a-matched-retrospective-cohort-study-using-pcr-testing-data-in-england/DF530C4872618911F20C4A84CB604188. Acesso em: 27 maio 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/DF530C4872618911F20C4A84CB604188/S0950268822000966a.pdf/protective_effect_of_a_first_sarscov2_infection_from_reinfection_a_matched_retrospective_cohort_study_using_pcr_testing_data_in_england.pdf

Título	COVID-19 hospitalization metrics that do not account for disease severity underestimate protection provided by SARS-CoV-2 vaccination and boosting: a retrospective cohort study
Autor(es)	June K. Corrigan, Jennifer La, Nathanael R. Fillmore, Nhan V. Do, Mary Brophy, Shira Doron, Paul A. Monach, Westyn Branch-Elliman
Resumo	To the Editor-- Vaccination with SARS-CoV-2 reduces the risk of severe COVID-19, as has typically been assessed using the simple metric of hospitalization contemporaneous with a positive test for SARS-CoV-2. In Fillmore et al, we demonstrated that simple hospitalization metrics overestimate the number of severe cases among vaccinated US Veterans prior to widespread recommendations for additional vaccine doses. 1 On the basis of waning immunity and partial cross-protection against delta and omicron, the CDC issued recommended additional doses of vaccine, initially for high-risk patients in August 2021; the recommendation was subsequently expanded to include all adults in late October, 2021. 2, 3 Owing to the new variant and widespread availability of booster doses, we update our analysis to re-examine trends in Covid-19 severity among hospitalized patients, stratifying by vaccination status (unvaccinated, vaccinated but not boosted, or boosted).
Referências	CORRIGAN, J. K. *et al.* COVID-19 hospitalization metrics that do not account for disease severity underestimate protection provided by SARS-CoV-2 vaccination and boosting: a retrospective cohort study**. Infection control & hospital epidemiology**, [United Kingdom], p. 1–17, May 23, 2022. DOI: 10.1017/ice.2022.79. Disponível em: https://www.cambridge.org/core/product/identifier/S0899823X22000794/type/journal_article. Acesso em: 27 maio 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/F14EC86D62341789FCCD97FF87E88854/S0899823X22000794a.pdf/covid19_hospitalization_metrics_that_do_not_account_for_disease_severity_underestimate_protection_provided_by_sarscov2_vaccination_and_boosting_a_retrospective_cohort_study.pdf

Título	Similar duration of viral shedding of the Delta variant of SARS-CoV-2 between vaccinated and incompletely vaccinated individuals
Autor(es)	Christopher Kandel, Andra Banete, Maureen Taylor, Andrea Llanes, Janine McCready, Gloria Crowl, Matthew Young, Angel Xinliu Li, Emily Chien, Winfield Yim, Lily Yip, Robert Kozak, Allison McGeer, Samira Mubareka, Jeff Powis
Resumo	Among outpatients with COVID-19 due to the Delta variant who did and did not receive two vaccine doses at 7 days post symptom onset there was no difference in viral shedding (cycle threshold difference 0.59, 95% CI -4.68–3.50; p=0.77) with SARS-CoV-2 cultured from 7% (2/28) and 4% (1/26), respectively.
Referências	KANDEL, C. *et al.* Similar duration of viral shedding of the Delta variant of SARS-CoV-2 between vaccinated and incompletely vaccinated individuals. **Infection control & hospital epidemiology**, [United Kingdom], p. 1–13, May 23, 2022. DOI: 10.1017/ice.2022.124. Disponível em: https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/similar-duration-of-viral-shedding-of-the-delta-variant-of-sarscov2-between-vaccinated-and-incompletely-vaccinated-individuals/D740EE554AFA644D1E6FB891BA44C3E0. Acesso em: 27 maio 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/D740EE554AFA644D1E6FB891BA44C3E0/S0899823X22001246a.pdf/similar_duration_of_viral_shedding_of_the_delta_variant_of_sarscov2_between_vaccinated_and_incompletely_vaccinated_individuals.pdf

Título	Characteristics of nursing home residents and healthcare personnel with repeat positive SARS-CoV-2 Tests ≥ 90 days after initial infection: 4 u.s. jurisdictions, July 2020 – March 2021
Autor(es)	W. Wyatt Wilson, Kelly M. Hatfield, Stacy Tressler, Cara Bicking Kinsey, Gemma Parra, Renée Zell, Anitra Denson, Channyn Williams, Kevin B. Spicer, Ishrat Ahmed-Kamal, Baha Abdalhamid, Mahlet Gemechu, Jennifer Folster, Natalie J. Thornburg, Azaibi Tamin, Jennifer L. Harcourt, Krista Queen, Suxiang Tong, John Jernigan, Matthew Crist, Kiran M. Perkins, Sujan C. Reddy,
Resumo	One of six nursing home residents and staff with positive SARS-CoV-2 tests ≥90 days after initial infection had specimen cycle thresholds (Ct) <30. Individuals with specimen Ct<30 were more likely to report symptoms but were not different from individuals with high Ct value specimens by other clinical and testing data.
Referências	WILSON, W. W. *et al.* Characteristics of nursing home residents and healthcare personnel with repeat positive SARS-CoV-2 Tests ≥ 90 days after initial infection: 4 u.s. jurisdictions, July 2020 – March 2021. **Infection control & hospital epidemiology**, [United Kingdom], p. 1–18, May 20, 2022. DOI: 10.1017/ice.2022.62. Disponível em: https://www.cambridge.org/core/product/identifier/S0899823X22000629/type/journal_article. Acesso em: 27 maio 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/ED913A983632B791B56C7FDBDBFC60A4/S0899823X22000629a.pdf/characteristics_of_nursing_home_residents_and_healthcare_personnel_with_repeat_positive_sarscov2_tests_90_days_after_initial_infection_4_us_jurisdictions_july_2020_march_2021.pdf

Título	A dual-antigen self-amplifying RNA SARS-CoV-2 vaccine induces potent humoral and cellular immune responses and protects against SARS-CoV-2 variants through T cell-mediated immunity
Autor(es)	Sean McCafferty, Ashiqul Haque, Aster Vandierendonck, Brian Weidensee, Magalie Plovyt, Magdalena Stuchlíková, Nathalie François, Sophie Valembois, Leo Heyndrickx, Johan Michiels, Kevin K. Ariën, Linos Vandekerckhove, Rana Abdelnabi,6 Caroline S. Foo, Johan Neyts, Itishri Sahu, Niek N. Sanders
Resumo	Self-amplifying RNA vaccines may induce equivalent or more potent immune responses at lower doses compared to non-replicating mRNA vaccines via amplified antigen expression. In this paper, we demonstrate that 1 mg of an LNP-formulated dualantigen self-amplifying RNA vaccine (ZIP1642), encoding both the S-RBD and N antigen, elicits considerably higher neutralizing antibody titers against Wuhan-like Beta B.1.351 and Delta B.1.617.2 SARS-CoV-2 variants compared to those of convalescent patients. In addition, ZIP1642 vaccination in mice expanded both S- and N-specific CD3+ CD4+ and CD3+ CD8+ T cells and caused a Th1 shifted cytokine response. We demonstrate that the induction of such dual antigen-targeted cell-mediated immune response may provide better protection against variants displaying highly mutated Spike proteins, as infectious viral loads of both Wuhan-like and Beta variants were decreased after challenge of ZIP1642 vaccinated hamsters. Supported by these results, we encourage redirecting focus toward the induction of multiple antigen-targeted cell-mediated immunity in addition to neutralizing antibody responses to bypass waning antibody responses and attenuate infectious breakthrough and disease severity of future SARS-CoV-2 variants.
Referências	MCCAFFERTY, S. *et al.* A dual-antigen self-amplifying RNA SARS-CoV-2 vaccine induces potent humoral and cellular immune responses and protects against SARS-CoV-2 variants through T cell-mediated immunity. **Molecular therapy**, [United States], p. S152500162200243X, Apr. 20, 2022. DOI: 10.1016/j.ymthe.2022.04.014. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S152500162200243X. Acesso em: 27 maio 2022.
Fonte	https://www.cell.com/molecular-therapy-family/molecular-therapy/pdf/S1525-0016(22)00243-X.pdf

Título	COH04S1 and Beta sequence modified vaccine protect hamsters from SARS-CoV-2 variants
Autor(es)	Felix Wussow, Mindy Kha, Katelyn Faircloth, Vu H. Nguyen, Angelina Iniguez, Joy Martinez, Yoonsuh Park, Jenny Nguyen, Swagata Kar, Hanne Andersen, Mark G. Lewis, Flavia Chiuppesi, Don J. Diamond
Resumo	COVID-19 vaccine efficacy is threatened by emerging SARS-CoV-2 variants of concern (VOC) with the capacity to evade protective neutralizing antibody responses. We recently developed clinical vaccine candidate COH04S1, a synthetic modified vaccinia Ankara vector (sMVA) coexpressing spike and nucleocapsid antigens based on the Wuhan-Hu-1 reference strain that showed potent efficacy to protect against ancestral SARS-CoV-2 in Syrian hamsters and nonhuman primates and was safe and immunogenic in healthy volunteers. Here, we demonstrate that intramuscular immunization of Syrian hamsters with COH04S1 and an analogous Beta variant-adapted vaccine candidate (COH04S351) elicits potent cross-reactive antibody 21 responses and protects against weight loss, lower respiratory tract infection, and lung pathology 22 following challenge with major SARS-CoV-2 VOC, including Beta and the highly contagious Delta 23 variant. These results demonstrate efficacy of COH04S1 and a variant-adapted vaccine analogue 24 to confer cross-protective immunity against SARS-CoV-2 and its emerging VOC, supporting 25 clinical investigation of these sMVA-based COVID-19 vaccine candidates.
Referências	WUSSOW, F. *et al.* COH04S1 and Beta sequence modified vaccine protect hamsters from SARS-CoV-2 variants. **iScience**, [Netherlands], p. 104457, May 23, 2022. DOI: 10.1016/j.isci.2022.104457. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S2589004222007283. Acesso em: 27 maio 2022.
Fonte	https://www.cell.com/action/showPdf?pii=S2589-0042%2822%2900728-3

Título	Excess mortality in Massachusetts during the Delta and Omicron waves of COVID-19
Autor(es)	Jeremy Samuel Faust, Chengan Du, Chenxue Liang, Katherine Dickerson Mayes, Benjamin Renton, Kristen Panthagani, Harlan M. Krumholz
Resumo	The COVID-19 pandemic has produced excess deaths, the number of all-cause fatalities exceeding the expected number in any period. Given reports that the Omicron variant may confer less risk than prior variants, we compared excess mortality in Massachusetts, a highly vaccinated state, during the Delta and initial Omicron periods.
Referências	FAUST, J. S. *et al.* Excess mortality in Massachusetts during the Delta and Omicron waves of COVID-19. **JAMA**, [United States], May 20, 2022. DOI: 10.1001/jama.2022.8045. Disponível em: https://doi.org/10.1001/jama.2022.8045. Acesso em: 27 maio 2022.
Fonte	https://jamanetwork.com/journals/jama/fullarticle/2792738

Título	Severity and incidence of multisystem inflammatory syndrome in children during 3 SARS-CoV-2 pandemic waves in Israel
Autor(es)	Nitai Levy, Jordanna H. Koppel, Or Kaplan, Hadas Yechiam, Keren Shahar-Nissan, Naama Kuchinski Cohen, Itai Shavit
Resumo	Multisystem inflammatory syndrome in children (MIS-C) is a serious complication of SARS-CoV-2 infection. A previous study that described MIS-C cases in the first 3 waves of the COVID-19 pandemic found that the proportion of individuals with severe illness declined after the first wave. In Israel, the Omicron (B.1.1.529) variant started to spread in November 2021. We describe outcomes of MIS-C in a multicenter cohort and assessed incidence nationally during the Alpha, Delta, and Omicron variant waves.
Referências	LEVY, N. *et al.* Severity and incidence of multisystem inflammatory syndrome in children during 3 SARS-CoV-2 pandemic waves in Israel. **JAMA**, [United States], May 19, 2022. DOI: 10.1001/jama.2022.8025. Disponível em: https://doi.org/10.1001/jama.2022.8025. Acesso em: 27 maio 2022.
Fonte	https://jamanetwork.com/journals/jama/fullarticle/2792718

Título	Routine Surveillance and Vaccination on a university campus During the spread of the SARS-CoV-2 Omicron variant
Autor(es)	Genevive R. Meredith, Diego G. Diel, Peter I. Frazier, Shane G. Henderson, Gary A. Koretzky, Jiayue Wan, Lorin D. Warnick
Resumo	Introduction...As SARS-CoV-2 was detected in the US, emergency public health measures took effect, including shutting down schools.[1] As prevention and control measures improved, emergency response policies were rolled back.[1] Cornell University opened for residential instruction in Fall 2021 using an extensive testing, contact tracing, and isolation program in partnership with the Tompkins County Health Department (Table).[2] Vaccination was mandated for all students and encouraged for employees. Masks were required on-campus, and isolation orders and contact tracing occurred within hours of any positive result. We hypothesized that these measures would limit COVID-19 spread on campus and sought to monitor this with a case-series study of university testing records.
Referências	MEREDITH, G. R. *et al.* Routine Surveillance and Vaccination on a university campus During the spread of the SARS-CoV-2 Omicron variant. **JAMA network open**, [United States], v. 5, n. 5, p. e2212906, May 18, 2022. DOI: 10.1001/jamanetworkopen.2022.12906. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.12906. Acesso em: 27 maio 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2792382

Título	Are anti-receptor–binding domain antibodies still a relevant proxy for monitoring SARS-CoV-2 neutralizing activity in the Omicron era?
Autor(es)	Kahina Saker, Bruno Pozzetto, Antonin Bal, Martine Valette, Jean-Baptiste Fassier, Carla Saade, Mary Anne Trabaud, Sophie Trouillet-Assant
Resumo	Since the beginning of the COVID-19 pandemic in 2020, different SARS-CoV-2 variants of concern (VOC) have emerged. The Omicron variant (B.1.1.529) that rose in Africa in November 2021 had become the predominant lineage circulating worldwide in January 2022, rapidly outcompeting the Delta variant (B.1.617.2). Indeed, with 37 mutations in the spike (S) protein, including 15 in the receptor-binding domain (RBD) and 9 in the receptor binding motif that directly interacts with the angiotensin-converting enzyme 2 receptor, the Omicron variant represents the most heavily mutated circulating strain of SARS-CoV-2 to date. The spike protein is the target of neutralizing antibodies induced by natural infection or vaccine immunization. In current vaccines, this protein comes from the original Wuhan SARS-CoV-2 strain. It has been shown that mutations mapping RBD is responsible for immune escape and higher infectivity and that antibodies produced after [...]
Referências	SAKER, K. *et al.* Are anti-receptor–binding domain antibodies still a relevant proxy for monitoring SARS-CoV-2 neutralizing activity in the Omicron era?. **Clinical chemistry**, [United States], p. hvac085, May 26, 2022. DOI: 10.1093/clinchem/hvac085. Disponível em: https://doi.org/10.1093/clinchem/hvac085. Acesso em: 27 maio 2022.
Fonte	https://academic.oup.com/clinchem/advance-article/doi/10.1093/clinchem/hvac085/6591814?searchresult=1

Título	Genomic surveillance of SARS-CoV-2 in a university community: insights into tracking variants, transmission, and spread of Gamma (P.1) variant
Autor(es)	Ilinca I. Ciubotariu, Jack Dorman, Nicole M. Perry, Lev Gorenstein, Jobin J. Kattoor, Abebe A. Fola, Amy Zine, G. Kenitra Hendrix, Rebecca P. Wilkes, Andrew Kitchen, Giovanna Carpi
Resumo	Using a combination of data from routine surveillance, genomic sequencing, and phylogeographic analysis we tracked the spread and introduction events of SARS-CoV-2 variants focusing on a large university community.Here, we sequenced and analyzed 677 high-quality SARS-CoV-2 genomes from positive RNA samples collected from Purdue University students, faculty, and staff who tested positive for the virus between January 2021 and May 2021, comprising an average of 32% of weekly cases across the time frame.Our analysis of circulating SARS-CoV-2 variants over time revealed periods when Variant of Concern (VOC) Alpha (B.1.1.7) and Iota (B.1.526) reached rapid dominance and documented that VOC Gamma (P.1) was increasing in frequency as campus surveillance was ending. Phylodynamic analysis of Gamma genomes from campus alongside a subsampling of >20,000 previously published P.1 genomes revealed ten independent introductions of this variant into the Purdue community, predominantly from elsewhere in the United States, with introductions from within the state of Indiana and from Illinois, and possibly Washington and New York, suggesting a degree of domestic spread.We conclude that a robust and sustained active and passive surveillance program coupled with genomic sequencing during a pandemic offers important insights into the dynamics of pathogen arrival and spread in a campus community and can help guide mitigation measures.
Referências	CIUBOTARIU, I. I. *et al.* Genomic surveillance of SARS-CoV-2 in a university community: insights into tracking variants, transmission, and spread of Gamma (P.1) variant. **Open forum infectious diseases**, [United Kingdom], p. ofac268, May 26, 2022. DOI: 10.1093/ofid/ofac268. Disponível em: https://doi.org/10.1093/ofid/ofac268. Acesso em: 27 maio 2022.
Fonte	https://academic.oup.com/ofid/advance-article/doi/10.1093/ofid/ofac268/6593412?searchresult=1

Título	Functional antibody responses to SARS-CoV-2 variants in children with COVID-19, MIS-C, and after two doses of BNT162b2 vaccination
Autor(es)	Christina A. Rostad, Xuemin Chen, He-ying Sun, Laila Hussaini, Austin Lu, Maria A. Perez, Hui-Mien Hsiao, Larry J. Anderson, Evan J. Anderson
Resumo	Although neutralizing antibodies to SARS-CoV-2 correlate with protection against COVID-19, little is known about the neutralizing and antibody-dependent cell-mediated cytotoxicity (ADCC) responses to COVID-19, MIS-C, and COVID-19 vaccination in children. We enrolled children 0-21 years of age with history of COVID-19 (n=13), MIS-C (n=13), or two doses of BNT162b2 vaccination (n=14) into a phlebotomy protocol. We measured pseudovirus neutralizing and functional ADCC antibodies to SARS-CoV-2 variants, including Omicron (B.1.1.529). The primary BNT162b2 vaccination series elicited higher neutralizing and ADCC responses with greater breadth to SARS-CoV-2 variants than COVID-19 or MIS-C. However, serologic responses were significantly reduced against variants, particularly Omicron.
Referências	ROSTAD, C. A. *et al.* Functional antibody responses to SARS-CoV-2 variants in children with COVID-19, MIS-C, and after two doses of BNT162b2 vaccination. **The journal of infectious diseases**, [United Kingdom], p. jiac215, May 26, 2022. DOI: 10.1093/infdis/jiac215. Disponível em: https://doi.org/10.1093/infdis/jiac215. Acesso em: 27 maio 2022.
Fonte	https://academic.oup.com/jid/advance-article/doi/10.1093/infdis/jiac215/6593309?searchresult=1

Título	Trajectory of long covid symptoms after covid-19 vaccination: community based cohort study
Autor(es)	Daniel Ayoubkhani, Charlotte Bermingham, Koen B Pouwels, Myer Glickman, Vahé Nafilyan, Francesco Zaccardi, Kamlesh Khunti, Nisreen A Alwan, A Sarah Walke
Resumo	Objective To estimate associations between covid-19 vaccination and long covid symptoms in adults with SARS-CoV-2 infection before vaccination. Design Observational cohort study. Setting Community dwelling population, UK. Participants 28 356 participants in the Office for National Statistics COVID-19 Infection Survey aged 18-69 years who received at least one dose of an adenovirus vector or mRNA covid-19 vaccine after testing positive for SARS-CoV-2 infection. Main outcome measure Presence of long covid symptoms at least 12 weeks after infection over the follow-up period 3 February to 5 September 2021. Results Mean age of participants was 46 years, 55.6% (n=15 760) were women, and 88.7% (n=25 141) were of white ethnicity. Median follow-up was 141 days from first vaccination (among all participants) and 67 days from second vaccination (83.8% of participants). 6729 participants (23.7%) reported long covid symptoms of any severity at least once during follow-up. A first vaccine dose was associated with an initial 12.8% decrease (95% confidence interval −18.6% to −6.6%, P<0.001) in the odds of long covid, with subsequent data compatible with both increases and decreases in the trajectory (0.3% per week, 95% confidence interval −0.6% to 1.2% per week, P=0.51). A second dose was associated with an initial 8.8% decrease (95% confidence interval −14.1% to −3.1%, P=0.003) in the odds of long covid, with a subsequent decrease by 0.8% per week (−1.2% to −0.4% per week, P<0.001). Heterogeneity was not found in associations between vaccination and long covid by sociodemographic characteristics, health status, hospital admission with acute covid-19, vaccine type (adenovirus vector or mRNA), or duration from SARS-CoV-2 infection to vaccination. Conclusions The likelihood of long covid symptoms was observed to decrease after covid-19 vaccination and evidence suggested sustained improvement after a second dose, at least over the median follow-up of 67 days. Vaccination may

	contribute to a reduction in the population health burden of long covid, although longer follow-up is needed.
Referências	AYOUBKHANI, D. *et al.* Trajectory of long covid symptoms after covid-19 vaccination: community based cohort study. **BMJ**, [United Kingdom], v. 377, p. e069676, May 18, 2022. DOI: 10.1136/bmj-2021-069676. Disponível em: https://www.bmj.com/lookup/doi/10.1136/bmj-2021-069676. Acesso em: 27 maio 2022.
Fonte	https://www.bmj.com/content/377/bmj-2021-069676

Título	Public health impact of covid-19 vaccines in the US: observational study
Autor(es)	Amitabh Bipin Suthar, Jing Wang, epidemiologist, Victoria Seffren, Ryan E Wiegand, Sean Griffing, Elizabeth Zell
Resumo	Objective To evaluate the impact of vaccine scale-up on population level covid-19 mortality and incidence in the United States. Design Observational study. Setting US county level case surveillance and vaccine administration data reported from 14 December 2020 to 18 December 2021. Participants Residents of 2558 counties from 48 US states. Main outcome measures The primary outcome was county covid-19 mortality rates (deaths/100 000 population/county week). The secondary outcome was incidence of covid-19 (cases/100 000 population/county week). Incidence rate ratios were used to compare rates across vaccination coverage levels. The impact of a 10% improvement in county vaccination coverage (defined as at least one dose of a covid-19 vaccine among adults ≥18 years of age) was estimated During the eras of alpha and delta variant predominance, the impact of very low (0-9%), low (10-39%), medium (40-69%), and high (≥70%) vaccination coverage levels was compared.Results In total, 30 643 878 cases of covid-19 and 439 682 deaths associated with covid-19 occurred over 132 791 county weeks. A 10% improvement in vaccination coverage was associated with an 8% (95% confidence interval 8% to 9%) reduction in mortality rates and a 7% (6% to 8%) reduction in incidence. Higher vaccination coverage levels were associated with reduced mortality and incidence rates during the eras of alpha and delta variant predominance.Conclusions Higher vaccination coverage was associated with lower rates of population level covid-19 mortality and incidence in the US.
Referências	SUTHAR, A. B. *et al.* Public health impact of covid-19 vaccines in the US: observational study. **BMJ**, [United Kingdom], v. 377, p. e069317, Apr. 27, 2022. DOI: 10.1136/bmj-2021-069317. Disponível em: https://www.bmj.com/content/377/bmj-2021-069317. Acesso em: 27 maio 2022.
Fonte	https://www.bmj.com/content/377/bmj-2021-069317

Título	Protection and Waning of Natural and Hybrid Immunity to SARS-CoV-2
Autor(es)	Yair Goldberg, Micha Mandel, Yinon M. Bar-On, Omri Bodenheimer, Laurence S. Freedman, Nachman Ash, Sharon Alroy-Preis, Amit Huppert, Ron Milo
Resumo	Infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) provides natural immunity against reinfection. Recent studies have shown waning of the immunity provided by the BNT162b2 vaccine. The time course of natural and hybrid immunity is unknown. METHODS Using the Israeli Ministry of Health database, we extracted data for August and September 2021, when the B.1.617.2 (delta) variant was predominant, on all persons who had been previously infected with SARS-CoV-2 or who had received coronavirus 2019 vaccine. We used Poisson regression with adjustment for confounding factors to compare the rates of infection as a function of time since the last immunity-conferring event. Results: The number of cases of SARS-CoV-2 infection per 100,000 person-days at risk (adjusted rate) increased with the time that had elapsed since vaccination with BNT162b2 or since previous infection. Among unvaccinated persons who had recovered from infection, this rate increased from 10.5 among those who had been infected 4 to less than 6 months previously to 30.2 among those who had been infected 1 year or more previously. Among persons who had received a single dose of vaccine after previous infection, the adjusted rate was low (3.7) among those who had been vaccinated less than 2 months previously but increased to 11.6 among those who had been vaccinated at least 6 months previously. Among previously uninfected persons who had received two doses of vaccine, the adjusted rate increased from 21.1 among those who had been vaccinated less than 2 months previously to 88.9 among those who had been vaccinated at least 6 months previously. CONCLUSIONS: Among persons who had been previously infected with SARS-CoV-2 (regardless of whether they had received any dose of vaccine or whether they had received one dose before or after infection), protection against reinfection decreased as the time increased since the last immunity-conferring event; however, this protection

Resumo	was higher than that conferred after the same time had elapsed since receipt of a second dose of vaccine among previously uninfected persons. A single dose of vaccine after infection reinforced protection against reinfection.
Referências	GOLDBERG, Y. *et al.* Protection and Waning of Natural and Hybrid Immunity to SARS-CoV-2. **New england journal of medicine**, [United States], May 25, 2022. DOI: 10.1056/NEJMoa2118946. Disponível em: https://doi.org/10.1056/NEJMoa2118946. Acesso em: 27 maio 2022.
Fonte	https://www.nejm.org/doi/full/10.1056/NEJMoa2118946?query=featured_coronavirus

Título	BNT162b2 Protection against the Omicron Variant in Children and Adolescents
Autor(es)	Ashley M. Price, Samantha M. Olson, Margaret M. Newhams, Natasha B. Halasa, Julie A. Boom, Leila C. Sahni, Pia S. Pannaraj, Katherine Irby, Katherine E. Bline, Aline B. Maddux, Ryan A. Nofziger, Melissa A. Cameron, Tracie C. Walker, Stephanie P. Schwartz, Elizabeth H. Mack, Laura Smallcomb, Jennifer E. Schuster, Charlotte V. Hobbs, Satoshi Kamidani, Keiko M. Tarquinio, Tamara T. Bradford, Emily R. Levy, Kathleen Chiotos, Samina S. Bhumbra, Natalie Z. Cvijanovich, Sabrina M. Heidemann, Melissa L. Cullimore, , Shira J. Gertz, Bria M. Coates, Mary A. Staat, Matt S. Zinter, Michele Kong, Brandon M. Chatani, Janet R. Hume, Katri V. Typpo, Mia Maamari, Heidi R. Flori, Mark W. Tenforde, Laura D. Zambrano, Angela P. Campbell, Manish M. Patel, Adrienne G. Randolph
Resumo	Spread of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) B.1.1.529 (omicron) variant, which led to increased U.S. hospitalizations for coronavirus disease 2019 (Covid-19), generated concern about immune evasion and the duration of protection from vaccines in children and adolescents.
Referências	PRICE, A. M. *et al.* BNT162b2 Protection against the Omicron Variant in Children and Adolescents. **NEJM**, [United States], v. 386, n. 20, p. 1899–1909, May 19, 2022. DOI: 10.1056/NEJMoa2202826. Disponível em: https://doi.org/10.1056/NEJMoa2202826. Acesso em: 27 maio 2022.
Fonte	https://www.nejm.org/doi/full/10.1056/NEJMoa2202826?query=recirc_mostViewed_railB_article

Título	Assessment of vulnerability to the COVID-19 pandemic in the central african sub-region
Autor(es)	Gildas Boris Kuitsouc Tazemda; Dominique Kuitsouc; Ingrid Cecile Djuikoue; Axel Stephane Makon Nwaha; Celestin Kamga Tagne; Rolline Kuitsouc Domkam; Celine Kuematsa Keubou; Belefeh Gabriel Nkafuh; Romaric Tuono; Man-Koumba Soumahoro; Venant Nana Tchokonte ; Lazare Noche Kaptue ; Ernest Tambo , Eugene Jamot Ndebia
Resumo	Objective: This study aimed at examining the vulnerability of Central Africa to the Covid-19 pandemic. Methods: Demographic, health and socio-economic indicators were used to describe the vulnerability. Results: According to demographic indicators, populations appear younger than in Europe, Asia and North America, where evidence showed a higher lethality of Covid-19 and a higher frequency of hospitalization among the elderly. This highlights the protective effect of the age structure of the Central African populations. There is a significant vulnerability of their populations resulting from high morbidity and a considerable deficit in health care. Poverty indicators are not in their favour for a sustainable implementation of effective pandemic control measures. Very low literacy rates in some countries, misinformation and belief in conspiracy theory could affect the community involvement in the response. Several countries are weakened by other humanitarian crises, including; conflicts and other epidemics. The early easing in lockdown restrictions in certain countries could worsen the situation.Conclusion: This Sub-region, where the largest proportion of the population lives in poverty, poor sanitary conditions, conflicts and humanitarian crises, the questions of standards of prevention could appear to them as luxurious idea relegated to the background. Central African Countries need financial and logistic support for a sustainable effective response. These observations could be easily extrapolated to other Sub-Saharan sub-regions.
Referências	TAZEMDA, G. B. K. *et al.* Assessment of vulnerability to the COVID-19 pandemic in the central african sub-region. **Disaster medicine and public health preparedness**, [United States], p. 1–26, May 18, 2022. DOI: 10.1017/dmp.2022.121. Disponível em: Acesso em: https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/assessment-of-vulnerability-to-the-covid19-pandemic-in-the-central-african-subregion/E5F2C89086F3ACFE1704CF6F8E3334BA. 20 maio 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/E5F2C89086F3ACFE1704CF6F8E3334BA/S1935789322001215a.pdf/assessment_of_vulnerability_to_the_covid19_pandemic_in_the_central_african_subregion.pdf

Título	Prevalence of SARS-CoV-2 antibodies during phased access to vaccination: results from a population-based survey in New York City, September 2020–March 2021
Autor(es)	Jannae C. Parrott , Ariana Maleki Annibale,, Sukhminder Osahan, Karen Alroy , Jo-Anne Caton , Claudia Chernov , Sarah Dumas , Randal C Fowler, Gabriella Hermosi, Yusyin Hsin , Sharon Perlman , Jing Wu , Scott Hughes , L. Hannah Gould , Anne Schuster
Resumo	Repeated serosurveys are an important tool for understanding trends in SARS-CoV-2 infection and vaccination. During 1 September 2020–20 March 2021, the NYC Health Department conducted a population-based SARS-CoV-2 antibody prevalence survey of 2121 NYC adults who either provided a blood specimen or self-reported the results of a previous antibody test. The serosurvey, the second in a series of surveys conducted by the NYC Health Department, aimed to estimate SARS-CoV-2 antibody prevalence across the city and for different groups at higher risk for adverse health outcomes. Weighted citywide prevalence was 23.5% overall (95% CI, 20.1–27.4) and increased from 19.2% (95% CI, 14.7–24.6) before COVID-19 vaccines were available to 31.3% (95% CI, 24.5–39.0) during the early phases of vaccine roll-out. We found no differences in antibody prevalence by age, race/ethnicity, borough, education, marital status, sex, health insurance coverage, self-reported general health, or neighborhood poverty. These results show an overall increase in population-level seropositivity in NYC following the introduction of SARS-CoV-2 vaccines and highlight the importance of repeated serosurveys in understanding the pandemic's progression.
Referências	PARROTT, J. C. *et al.* Prevalence of SARS-CoV-2 antibodies during phased access to vaccination: results from a population-based survey in New York City, September 2020–March 2021. **Epidemiology and infection**, [United Kingdom], p. 1–18, May 18, 2022. DOI: 10.1017/S0950268822000875. Disponível em: Acesso em: https://www.cambridge.org/core/product/identifier/S0950268822000875/type/journal_article. 20 maio 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/2AED49D0C60E521E69373E68980BFE7D/S0950268822000875a.pdf/prevalence_of_sarscov2_antibodies_during_phased_access_to_vaccination_results_from_a_populationbased_survey_in_new_york_city_september_2020march_2021.pdf

Título	Improper handling of vomitus as a risk factor in the human norovirus outbreak in a kindergarten in Wuyi County, Zhejiang Province, China
Autor(es)	Wanwan Sun , Zhifeng Pang , Yuanyuan He , Yijuan Chen , Jinren Pan , Jian Gao, Ziping Miao
Resumo	This study investigated an outbreak in a kindergarten in Wuyi County of acute gastroenteritis concerning a large number of students and teachers. We performed a case-control study, and collected information on the layout of the school, symptoms, onset time of all cases, and vomiting sites. A total of 62 individuals fit the definition of probable cases; among these, there were 19 cases of laboratory-confirmed norovirus infection. Nausea and vomiting were the most common symptoms in the outbreak. Seven student norovirus patients vomited in the school. The odds ratio (OR) of norovirus illness was 15.75 times higher among teachers who handled or interacted with student vomitus without respiratory protection than compared to those without this type of exposure (OR=15.75, 95%CI: 1.75-141.40). Nine samples were successfully genotyped; 8 samples were norovirus GII.2[P16], 1 sample was norovirus GII.4 Sydney[P16]. This study revealed that improper handling of vomitus is a risk factor of norovirus infection. Therefore, more attention should be given to train school staff in knowledge of disinfection.
Referências	WANWAN, S. *et al.* Improper handling of vomitus as a risk factor in the human norovirus outbreak in a kindergarten in Wuyi County, Zhejiang Province, China. **Epidemiology and infection**, [United Kingdom], p. 1–19, May 17, 2022. DOI: 10.1017/S0950268822000826. Disponível em: https://www.cambridge.org/core/journals/epidemiology-and-infection/article/improper-handling-of-vomitus-as-a-risk-factor-in-the-human-norovirus-outbreak-in-a-kindergarten-in-wuyi-county-zhejiang-province-china/4A8F2F12366E2DCC432983C666289922. Acesso em: 20 maio 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/4A8F2F12366E2DCC432983C666289922/S0950268822000826a.pdf/improper_handling_of_vomitus_as_a_risk_factor_in_the_human_norovirus_outbreak_in_a_kindergarten_in_wuyi_county_zhejiang_province_china.pdf

Título	Pearson's patterns correlational of clinical risks at admissions with hospitalization outcomes during initial COVID-19 outbreak
Autor(es)	Jingwen Li, Xi Long, Qing Zhang, Xi Fang, Huiling Luo, Fang Fang, e Xuefei Lv, e Dandan Zhang, e Yu Sun, e Na Li, Shaoping Hu, Jinghong Li, Nian Xiong,, Zhicheng
Resumo	COVID-19 outbreaks have crushed our healthcare systems, which requires clinical guidance for the healthcare following the outbreaks. We conducted retrospective cohort studies with Pearson's pattern-based analysis of clinical parameters of 248 hospitalized patients with COVID-19. We found that dysregulated neutrophil densities were correlated with hospitalization duration before death (P=0.000066, r=-0.45 for % neutrophil; P=0.0001, r=-0.47 for neutrophil count). As such, high neutrophil densities were associated with mortality (P= 4.23 x 10-31 for % neutrophil; P= 4.14 x 10-27 for neutrophil count). These findings were further illustrated by a representative "second week crash" pattern and validated by an independent cohort (P= 5.98 x 10-11 for % neutrophil; P= 1.65 x 10-7 for neutrophil count). By contrast, low aspartate aminotransferase (AST) or lactate dehydrogenase (LDH) levels were correlated with quick recovery (P≤ 0.00005). Collectively, these correlational at-admission findings may provide healthcare guidance for patients with COVID-19 in the absence of targeted therapy.
Referências	JINGWEN , L. *et al.* Pearson's patterns correlational of clinical risks at admissions with hospitalization outcomes during initial COVID-19 outbreak. **iScience**, [Netherlands], p. 104415, May 12, 2022. DOI: 10.1016/j.isci.2022.104415. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S2589004222006861. Acesso em: 20 maio 2022.
Fonte	https://www.cell.com/action/showPdf?pii=S2589-0042%2822%2900686-1

Título	Health outcomes in people 2 years after surviving hospitalisation with COVID-19: a longitudinal cohort study
Autor(es)	Lixue Huang, Xia Li, Xiaoying Gu, Hui Zhang, LiLi Ren, Li Guo, Min Liu, Yimin Wang, Dan Cui, Yeming Wang, Xueyang Zhang, Lianhan Shang, Jingchuan Zhong, Xinming Wang, Jianwei Wang, Bin Cao
Resumo	With the ongoing COVID-19 pandemic, growing evidence shows that a considerable proportion of people who have recovered from COVID-19 have long-term effects on multiple organs and systems. A few longitudinal studies have reported on the persistent health effects of COVID-19, but the follow-up was limited to 1 year after acute infection. The aim of our study was to characterise the longitudinal evolution of health outcomes in hospital survivors with different initial disease severity throughout 2 years after acute COVID-19 infection and to determine their recovery status.
Referências	LIXUE, H.. *et al.* Health outcomes in people 2 years after surviving hospitalisation with COVID-19: a longitudinal cohort study. **The Lancet . Respiratory medicine**, [Netherlands], p. S2213260022001266, May 11, 2022. DOI: 10.1016/S2213-2600(22)00126-6. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S2213260022001266. Acesso em: 20 maio 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2213-2600%2822%2900126-6

Título	Clinical severity of COVID-19 in patients admitted to hospital during the omicron wave in South Africa: a retrospective observational study
Autor(es)	Waasila Jassat, Salim S Abdool Karim, Caroline Mudara, Richard Welch, Lovelyn Ozougwu, Michelle J Groome, Nevashan Govender, Anne von Gottberg, Nicole Wolter, Milani Wolmarans, Petro Rousseau, the DATCOV author group, Lucille Blumberg, Cheryl Cohen
Resumo	Up to the end of January, 2022, South Africa has had four recognisable COVID-19 pandemic waves, each predominantly dominated by one variant of concern: the ancestral strain with an Asp614Gly mutation during the first wave, the beta variant (B.1.351) during the second wave, the delta variant (B.1.617.2) during the third wave, and lastly, the omicron variant (B.1.1.529) during the fourth wave. We aimed to assess the clinical disease severity of patients admitted to hospital with SARS-CoV-2 infection during the omicron wave and compare the findings with those of the preceding three pandemic waves in South Africa.
Referências	JASSAT, W. *et al.* Clinical severity of COVID-19 in patients admitted to hospital during the omicron wave in South Africa: a retrospective observational study. **The Lancet. Global health**, [Netherlands], May 18, 2022. DOI: 10.1016/S2214-109X(22)00114-0 . Disponível em: https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(22)00114-0/fulltext. Acesso em: 20 maio 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2214-109X%2822%2900114-0

Título	Racial and ethnic disparities in estimated excess mortality from external causes in the US, March to December 2020
Autor(es)	Ruijia Chen, ; Hélène E. Aschmann, Yea-Hung Chen, M. Maria Glymour, Kirsten Bibbins-Domingo, Andrew C. Stokes, Mathew V. Kiang
Resumo	COVID-19 has disproportionately affected racial and ethnic minority groups in the US. However, estimating the full effects of the pandemic on health disparities should account for other causes of death, including external causes. We estimated racial and ethnic disparities in excess deaths from external causes (homicide, suicide, transportation, and drug overdoses) from March through December 2020.
Referências	CHEN, R. *et al.* Racial and ethnic disparities in estimated excess mortality from external causes in the US, March to December 2020. **JAMA internal medicine**, [United States], May 9, 2022. DOI: 10.1001/jamainternmed.2022.1461 . Disponível em: https://doi.org/10.1001/jamainternmed.2022.1461. Acesso em: 20 maio 2022.
Fonte	https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2791682

Título	Neutralizing antibodies against the SARS-CoV-2 Omicron variant (BA.1) 1 to 18 weeks after the second and third doses of the BNT162b2 mRNA vaccine
Autor(es)	Ria Lassaunière, Charlotta Polacek, Anders Frische, Lasse Boding, Susanne Gjørup Sækmose, Morten Rasmussen, Anders Fomsgaard
Resumo	Introduction...The SARS-CoV-2 Omicron variant of concern[1] (VOC) is highly resistant to vaccine-induced antibody neutralization[2] and associated with a decline in vaccine efficacy within the first 3 months following the primary 2-dose regimen of the SARS-CoV-2 BNT162b2 (Pfizer/BioNTech) mRNA vaccine[3,4] and from 10 weeks after a third BNT162b2 dose.[4] To associate Omicron-specific neutralizing antibody levels with reported vaccine efficacies, we performed a temporal analysis of virus neutralization responses against an ancestral strain (D614G), the Delta VOC, and the Omicron VOC (BA.1) following 2 or 3 doses of the BNT162b2 vaccine.
Referências	LASSAUNIÈRE, R. *et al.* Neutralizing antibodies against the SARS-CoV-2 Omicron variant (BA.1) 1 to 18 weeks after the second and third doses of the BNT162b2 mRNA vaccine. **JAMA network open**, [United States], v. 5, n. 5, p. e2212073, May 13, 2022. DOI: 10.1001/jamanetworkopen.2022.12073. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.12073. Acesso em: 20 maio 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2792295

Título	Twelve-month longitudinal serology in SARS-CoV-2 naïve and experienced vaccine recipients and unvaccinated COVID-19-infected individuals
Autor(es)	Zion Congrave-Wilson, ORCID,Wesley A. Cheng , Yesun Lee 1,Stephanie Perez ,Lauren Turner, Carolyn Jennifer Marentes Ruiz ,Shirley Mendieta, Adam Skura, Jaycee Jumarang, Jennifer Del Valle , John Kubale, Emma Kaitlynn Allen, Paul G. Thomas , Aubree Gordon, Pia S. Pannaraj
Resumo	Longitudinal data comparing SARS-CoV-2 serology in individuals following infection and vaccination over 12 months are limited. This study compared the magnitude, decay, and variability in serum IgG, IgA, and neutralizing activity induced by natural infection (*n* = 218) or mRNA vaccination in SARS-CoV-2 naïve (*n* = 143) or experienced (*n* = 122) individuals over time using enzyme-linked immunosorbent assays and an in vitro virus neutralization assay. Serological responses were found to be highly variable after natural infection compared with vaccination but durable through 12 months. Antibody levels in vaccinated, SARS-CoV-2 naïve individuals peaked by 1 month then declined through 9 months, culminating in non-detectable SARS-CoV-2-specific serum IgA. Individuals with both infection and vaccination showed SARS-CoV-2-specific IgG and IgA levels that were more robust and slower to decline than the other groups; neutralizing activity remained highest in this group at 9 months past vaccination. These data reinforce the benefit of vaccination after SARS-CoV-2 recovery
Referências	CONGRAVE-WILSON, Z. *et al.* Twelve-month longitudinal serology in SARS-CoV-2 naïve and experienced vaccine recipients and unvaccinated COVID-19-infected individuals. **Vaccines**, [Switzerland], v. 10, n. 5, p. 813, may 20, 2022. DOI: 10.3390/vaccines10050813. Disponível em: https://www.mdpi.com/2076-393X/10/5/813. Acesso em: 20 maio 2022.
Fonte	https://www.mdpi.com/2076-393X/10/5/813/htm

Título	Level of acceptance of mandatory vaccination and legal sanctions for refusing mandatory vaccination of children
Autor(es)	Aneta Reczulska ,Aneta Tomaszewska, Filip Raciborski
Resumo	A preventive vaccination program is in operation in Poland. There are mandatory vaccinations for Polish residents under the age of 19 years. The law provides for financial penalties for parents who refuse to vaccinate their children. The aim of this study was to describe the attitudes of Polish residents aged 15–39 years to mandatory preventive vaccination and the level of acceptance for legal and financial sanctions for refusing mandatory vaccination of children. Materials and Methods: A face-to-face questionnaire-based study of a representative sample of 1560 residents of Poland aged 15–39 years. Data was collected in the fourth quarter of 2021. Results: In the study group, 51.5% of the respondents believed that preventive vaccination should be mandatory, and parents should have the right to decide only about additional vaccinations. Multivariate analyses (logistic regression) revealed a significant association between acceptance of mandatory vaccination and the following factors: positive COVID-19 vaccination status, self-declared religiosity, and having children. Of the 1560 respondents, 25.3% declared support for legal or financial sanctions for those refusing to vaccinate their children. In this group (n = 394), the highest percentage of respondents (59.4%) supported sanctions in the form of refusal to admit an unvaccinated child to a nursery or kindergarten. Conclusions: Despite preventive (mandatory) vaccination programs having been in operation in Poland since the 1960’s, only a little over 50% of adolescent Poles and young adults accept the vaccine mandate. Only 25% of this group declare their support for sanctions for refusing mandatory vaccination of children.

Referências	RECZULSKA, A.; TOMASZEWSKA, A.; RACIBORSKI, F. Level Level of acceptance of mandatory vaccination and legal sanctions for refusing mandatory vaccination of children. **Vaccines**, [Switzerland], v. 10, n. 5, p. 811, May 20, 2022. DOI: 10.3390/vaccines10050811. Disponível em: https://www.mdpi.com/2076-393X/10/5/811. Acesso em: 20 maio 2022.
Fonte	https://www.mdpi.com/2076-393X/10/5/811/htm

Título	Reduced odds of SARS-CoV-2 reinfection after vaccination among New York City adults, July–November 2021
Autor(es)	Alison Levin-Rector , Lauren Firestein, Emily McGibbon, Jessica Sell, Sungwoo Lim, Ellen H. Lee, Don Weiss , Anita Geevarughese , Jane R. Zucker, Sharon K. Greene
Resumo	Belief that vaccination is not needed for individuals with prior infection contributes to COVID-19 vaccine hesitancy. Among individuals infected with SARS-CoV-2 before vaccines became available, we assessed whether vaccinated individuals had reduced odds of reinfection.We conducted a case-control study among adult New York City residents who tested positive for SARS-CoV-2 infection in 2020, did not test positive again >90 days after initial positive test through July 1, 2021, and did not die before July 1, 2021. Case-patients with reinfection during July–November 2021 and control subjects with no reinfection were matched (1:3) on age, sex, timing of initial positive test in 2020, and neighborhood poverty level. Matched odds ratios (mOR) and 95% confidence intervals (CI) were calculated using conditional logistic regression.Of 349,827 eligible adults, 2,583 were reinfected during July–November 2021. Of 2,401 with complete matching criteria data, 1,102 (45.9%) were known to be symptomatic for COVID-19-like-illness, and 96 (4.0%) were hospitalized. Unvaccinated individuals, compared with individuals fully vaccinated within the prior 90 days, had elevated odds of reinfection (mOR, 3.21; 95% CI, 2.70, 3.82), of symptomatic reinfection (mOR, 2.97; 95% CI, 2.31, 3.83), and of reinfection with hospitalization (mOR, 2.09; 95% CI, 0.91, 4.79). All three vaccines authorized or approved for use in the U.S. were similarly effective.Vaccination reduced odds of reinfections when the Delta variant predominated. Further studies should assess risk of severe outcomes among reinfected persons as new variants emerge, infection- and vaccine-induced immunity wanes, and booster doses are administered.
Referências	LEVIN-RECTOR, A. *et al.* Reduced odds of SARS-CoV-2 reinfection after vaccination among New York City adults, July–November 2021. **Clinical infectious diseases**, [United States], p. ciac380, May 20, 2022. DOI: 10.1093/cid/ciac380. Disponível em: https://doi.org/10.1093/cid/ciac380. Acesso em: 20 maio 2022.
Fonte	https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciac380/6589783?searchresult=1

Título	Comparison of influenza and COVID-19–associated hospitalizations among children < 18 years old in the United States—FluSurv-NET (October–April 2017–2021) and COVID-NET (October 2020–September 2021)
Autor(es)	Miranda J. Delahoy, Dawud Ujamaa, Christopher A. Taylor, Charisse Cummings, Onika Anglin, Rachel Holstein, Jennifer Milucky, Alissa O'Halloran, Kadam Patel, Huong Pham, Michael Whitaker, Arthur Reingold, Shua J. Chai, Nisha B. Alden, , Breanna Kawasaki, , James Meek,, Kimberly Yousey-Hindes, Evan J. Anderson, Kyle P. Openo, Andy Weigel, LMSW, Kenzie Teno, Libby Reeg, , Lauren Leegwater, Ruth Lynfield, Melissa McMahon, , Susan Ropp, Dominic Rudin, Alison Muse, Nancy Spina, Nancy M. Bennett, Kevin Popham, Laurie M. Billing, Eli Shiltz, Melissa Sutton, Ann Thomas, MD, William Schaffner, H. Keipp Talbot, Melanie T. Crossland,, Keegan McCaffrey, Aron J. Hall, Erin Burns, Meredith McMorrow, Carrie Reed, Fiona P. Havers, Shikha Garg,
Resumo	Influenza virus and SARS-CoV-2 are significant causes of respiratory illness in children.Influenza and COVID-19-associated hospitalizations among children <18 years old were analyzed from FluSurv-NET and COVID-NET, two population-based surveillance systems with similar catchment areas and methodology. The annual COVID-19-associated hospitalization rate per 100 000 during the ongoing COVID-19 pandemic (October 1, 2020–September 30, 2021) was compared to influenza-associated hospitalization rates during the 2017–18 through 2019–20 influenza seasons. In-hospital outcomes, including intensive care unit (ICU) admission and death, were compared.Among children <18 years old, the COVID-19-associated hospitalization rate (48.2) was higher than influenza-associated hospitalization rates: 2017–18 (33.5), 2018–19 (33.8), and 2019–20 (41.7). The COVID-19-associated hospitalization rate was higher among adolescents 12–17 years old (COVID-19: 59.9; influenza range: 12.2-14.1), but similar or lower among children 5–11 (COVID-19: 25.0; influenza range: 24.3-31.7) and 0–4 (COVID-19: 66.8; influenza range: 70.9-91.5) years old. Among children <18 years old, a higher proportion with COVID-19 required ICU admission compared with influenza (26.4% vs 21.6%; p < 0.01). Pediatric deaths were uncommon during both COVID-19- and influenza-associated hospitalizations (0.7% vs 0.5%; p = 0.28).In the setting of extensive mitigation measures during the COVID-19 pandemic, the annual COVID-19-associated hospitalization rate during 2020–2021 was higher among adolescents and similar or lower among children

	<12 years old compared with influenza during the three seasons before the COVID-19 pandemic. COVID-19 adds substantially to the existing burden of pediatric hospitalizations and severe outcomes caused by influenza and other respiratory viruses.
Referências	DELAHOY, M. J. *et al.* Comparison of influenza and COVID-19–associated hospitalizations among children < 18 years old in the United States—FluSurv-NET (October–April 2017–2021) and COVID-NET (October 2020–September 2021). **Clinical infectious diseases**, [United States], p. ciac388, May 20, 2022. DOI: 10.1093/cid/ciac388. Disponível em: https://doi.org/10.1093/cid/ciac388. Acesso em: 20 maio 2022.
Fonte	https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciac388/6589788?searchresult=1

Título	Screening for SARS-CoV-2 in close contacts of individuals with confirmed infection: performance and operational considerations
Autor(es)	Stephanie Zobrist, Michelle Oliveira-Silva, Alexia Martines Vieira, Pooja Bansil, Emily Gerth-Guyette, Brandon T Leader, Allison Golden, Hannah Slater, Catherine Duran de Lucena Cruz, Eduardo Garbin, Mariana Sagalovsky, Sampa Pal, Vin Gupta, Leo Wolansky, Deusilene Souza Vieira Dall'Acqua, Gomes Felipe Naveca, Valdinete Alves do Nascimento, Juan Miguel Villalobos Salcedo, Paul K Drain, Alexandre Dias Tavares Costa, Gonzalo J Domingo, Dhélio Pereira
Resumo	Point-of-care and decentralized testing for SARS-CoV-2 is critical to inform public health responses. Performance evaluations in priority use cases such as contact tracing can highlight trade-offs in test selection and testing strategies. **Methods:** A prospective diagnostic accuracy study was conducted among close contacts of COVID-19 cases in Brazil. Two anterior nares swabs (ANS), a nasopharyngeal swab (NPS), and saliva were collected at all visits. Vaccination history and symptoms were assessed. Household contacts were followed longitudinally. Three rapid antigen tests and one molecular method were evaluated for usability and performance against reference RT-PCR on NPS. **Results:** Fifty index cases and 214 contacts (64 household) were enrolled. Sixty-five contacts were RT-PCR positive during at least one visit. Vaccination did not influence viral load. Gamma variants were most prevalent; Delta emerged increasingly during implementation. Overall sensitivity of evaluated tests ranged from 33%–76%. Performance was higher among symptomatic cases and cases with Ct < 34 and lower among oligo/asymptomatic cases. Assuming a 24-hour time-to-result for RT-PCR, the cumulative sensitivity of an ANS rapid antigen test was >70% and almost 90% after four days. **Conclusions:** The near immediate time-to-result for antigen tests significantly offsets lower analytical sensitivity in settings where RT-PCR results are delayed or unavailable.
Referências	ZOBRIST, S. *et al.* Screening for SARS-CoV-2 in close contacts of individuals with confirmed infection: performance and operational considerations. **The journal of infectious diseases**, [United Kingdom], p. jiac204, may 20, 2022. DOI: 10.1093/infdis/jiac204. Disponível em: https://doi.org/10.1093/infdis/jiac204. Acesso em: 20 maio 2022.
Fonte	https://academic.oup.com/jid/advance-article/doi/10.1093/infdis/jiac204/6589836?searchresult=1

Título	Lessons from COVID-19 syndromic surveillance through emergency department activity: a prospective time series study from western Switzerland
Autor(es)	Francois-Xavier Ageron, Olivier Hugli1, Fabrice Dami, David Caillet-Bois, Valerie Pittet, Philippe Eckert, Nicolas Beysard, Pierre-Nicolas Carron
Resumo	Objective We aimed to assess if emergency department (ED) syndromic surveillance during the first and second waves of the COVID-19 outbreak could have improved our surveillance system. Design and settings We did an observational study using aggregated data from the ED of a university hospital and public health authorities in western Switzerland. Participants All patients admitted to the ED were included. Primary outcome measure The main outcome was intensive care unit (ICU) occupancy. We used time series methods for ED syndromic surveillance (influenza-like syndrome, droplet isolation) and usual indicators from public health authorities (new cases, proportion of positive tests in the population). Results Based on 37 319 ED visits during the COVID-19 outbreak, 1421 ED visits (3.8%) were positive for SARS-CoV-2. Patients with influenza-like syndrome or droplet isolation in the ED showed a similar correlation to ICU occupancy as confirmed cases in the general population, with a time lag of approximately 13 days (0.73, 95% CI 0.64 to 0.80; 0.79, 95% CI 0.71 to 0.86; and 0.76, 95% CI 0.67 to 0.83, respectively). The proportion of positive tests in the population showed the best correlation with ICU occupancy (0.95, 95% CI 0.85 to 0.96).Conclusion ED syndromic surveillance is an effective tool to detect and monitor a COVID-19 outbreak and to predict hospital resource needs. It would have allowed to anticipate ICU occupancy by 13 days, including significant aberration detection at the beginning of the second wave.
Referências	AGERON, F.-X. *et al.* Lessons from COVID-19 syndromic surveillance through emergency department activity: a prospective time series study from western Switzerland. **BMJ open**, [United Kingdom], v. 12, n. 5, p. e054504, May 6, 2022. DOI: 10.1136/bmjopen-2021-054504. Disponível em: https://bmjopen.bmj.com/content/12/5/e054504. Acesso em: 20 maio 2022.
Fonte	https://bmjopen.bmj.com/content/12/5/e054504

Título	Sudden loss of smell and taste: clinical predictors of COVID-19 infection
Autor(es)	Avani Jain, Jasleen Kaur, Namrata Kahlon, Mitasha Singh, AK Rai, Mayank Hans, Veenu Madaan Hans, Sarojini Dhankar, Sandeep Kumar, AK Pandey
Resumo	OBJECTIVES: To evaluate the association of COVID-19 infection and olfactory and taste dysfunction (OTD) in patients presenting to the OPD with ILI undergoing RT-PCR testing for COVID-19. To determine the sensitivity, specificity, positive and negative predictive value of OTD and other symptoms in these patients. METHODS: The patients presenting with ILI to the study centre in September, 2020 were included in the study. The symptoms of RT-PCR positive patients were compared to those of RT-PCR negative patients.RESULTS: During the study period, 909 patients, aged 12-70 years, reported with ILI, out of which 316 (34.8%) patients tested COVID-19 positive. Only the symptoms of olfactory and taste dysfunction were statistically more significant in RT-PCR positive patients than in RTPCR negative patients. CONCLUSION: During the COVID-19 pandemic, patients presenting to the OPD with sudden loss of sense of smell or taste may be considered as COVID-19 positive, until proven otherwise.
Referências	JAIN, A. *et al.* SUDDEN LOSS OF SMELL AND TASTE: CLINICAL PREDICTORS OF COVID-19 INFECTION. **The journal of laryngology & otology**, [United Kingdom], p. 1–10, Apr. 27, 2022. DOI: 10.1017/S0022215122000986. Disponível em: https://www.cambridge.org/core/journals/journal-of-laryngology-and-otology/article/sudden-loss-of-smell-and-taste-clinical-predictors-of-covid19-infection/B3D958FF05165F8BF799D7ED30DC5699. Acesso em: 29 abr. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/B3D958FF05165F8BF799D7ED30DC5699/S0022215122000986a.pdf/sudden_loss_of_smell_and_taste_clinical_predictors_of_covid19_infection.pdf

Título	Olfactory impairment in self-perception asymptomatic Covid-19 patients
Autor(es)	Farah Dayana Zahedi, Salina Husain, Aneeza Khairiyah Wan Hamizan, Tuang Geng Ju, Hardip Singh Gendeh, Oui Ting Jie, Norlaila Mustafa, Kok Huey Tean,
Resumo	Olfactory impairment maybe present among self-perception asymptomatic COVID-19 patients. This study aims to assess the olfactory function among these infected individuals.Methods: A cross-sectional study involving the self-perception of asymptomatic COVID-19 patients. Assessments using the Malaysian Smell and Taste Questionnaire (m-STQ) and culturally adapted Malaysian version of Sniffin' Stick Identification (mSS-SIT) smell test were performed.Results: A total of 81 participants (aged 31.59±12.04 years) with the duration from diagnosis to test of 7.47±3.79 days. Subjective assessment showed 80.2% were asymptomatic (m-STQ score 6), and 19% had mild symptoms (m-STQ score 7 and 8). The mSS-SIT score was 10.89±2.11. The prevalence of olfactory impairment was 76.6% among self-perceptions of asymptomatic COVID-19 patients. There was no association between m-STQ and mSS-SIT scores (P=0.25). There was a correlation between the mSS-SIT score with the duration of diagnosis (P=0.04). Conclusion: The objective assessment proved COVID-19 patients who perceived themselves as asymptomatic showed olfactory impairment.
Referências	ZAHEDI, F. D. *et al.* Olfactory impairment in self-perception asymptomatic Covid-19 patients. **The journal of laryngology & otology**, [United Kingdom], p. 1–20, Apr. 26, 2022. DOI: 10.1017/S0022215121004709 . Disponível em: https://www.cambridge.org/core/product/identifier/S0022215121004709/type/journal_article. Acesso em: 29 abr. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/2934E1FC357322CB0B1A3422AF771B02/S0022215121004709a.pdf/olfactory_impairment_in_selfperception_asymptomatic_covid19_patients.pdf

Título	Seroprevalence and Dynamics of anti-SARS-CoV-2 antibody among healthcare workers following ChAdOx1 nCoV-19 vaccination
Autor(es)	Soma Sarkar, Shantanab Das, Kabita Choudhury, Saibal Mukherjee, Raghunath Chatterjee
Resumo	The Health Care Workers (HCWs) are in higher risk of acquiring the disease owing to their regular contact with the patients. The aim of this study is to evaluate the seroprevalence among HCWs preand post-vaccination. The serological assessment of anti-SARS-CoV-2 antibody was conducted in pre- and post-vaccination of first or both doses of the ChAdOx1 nCoV-19 vaccine and followed up to 8 months for SARS-CoV-2 infection and antibody titer. The neutralizing antibody was positively correlated with IgG and total antibody. IgG was significantly decreased after 4-6 months postinfection. Almost all HCWs developed IgG after 2 doses of vaccine with comparable IgG to that of the infected HCWs. A follow-up of 6 to 8 months post vaccination showed a significant drop in antibody titer, while 56% of them didn't show detectable level of IgG, suggesting the need for a booster dose. Around 21% of the vaccinated HCWs with significantly low antibody titer were infected with the SARS-CoV-2, but majority of them showed mild symptoms and recovered in home isolation without any O2 support. We noticed the effectiveness of the ChAdOx1 nCoV-19 vaccine as evident from the low rate of breakthrough infection with any severe symptoms.
Referências	SARKAR, S. *et al.* Seroprevalence and Dynamics of anti-SARS-CoV-2 antibody among healthcare workers following ChAdOx1 nCoV-19 vaccination. **Epidemiology and Infection**, [United Kingdom], p. 1–20, Apr. 25, 2022. DOI: 10.1017/S0950268822000747 . Disponível em: https://www.cambridge.org/core/product/identifier/S0950268822000747/type/journal_article..Acesso em: 29 abr. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/4F102B9D5CB756DC6B2036E252CECB4A/S0950268822000747a.pdf/seroprevalence_and_dynamics_of_antisarscov2_antibody_among_healthcare_workers_following_chadox1_ncov19_vaccination.pdf

Título	Validation of a clinical and genetic model for predicting severe COVID-19
Autor(es)	Gillian S. Dite, Nicholas M. Murphy, Erika Spaeth, Richard Allman
Resumo	Using nested case–control data from the Lifelines COVID-19 cohort, we undertook a validation study of a clinical and genetic model to predict the risk of severe COVID-19 in people with confirmed COVID-19 and in people with confirmed or self-reported COVID-19. The model performed well in terms of discrimination of cases and controls for all ages (area under the receiver operating characteristic curve [AUC] = 0.680 for confirmed COVID-19 and AUC = 0.689 for confirmed and self-reported COVID-19) and in the age group in which the model was developed (50 years and older; AUC = 0.658 for confirmed COVID-19 and AUC = 0.651 for confirmed and self-reported COVID-19). There was no evidence of over- or under-dispersion of risk scores but there was evidence of overall over-estimation of risk in all analyses (all P < 0.0001). In the light of large numbers of people worldwide remaining unvaccinated and continuing uncertainty regarding vaccine efficacy over time and against variants of concern, identification of people at high risk of severe COVID-19 may encourage the uptake of vaccinations (including boosters) and the use of non-pharmaceutical inventions.
Referências	DITE, G. S. *et al.* Validation of a clinical and genetic model for predicting severe COVID-19. **Epidemiology and Infection**, [United Kingdom], p. 1–15, Apr. 25, 2022. DOI: 10.1017/S0950268822000541. Disponível em: https://www.cambridge.org/core/product/identifier/S0950268822000541/type/journal_article. Acesso em: 29 abr. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/3F4D76D403BDAC66B2AFDB8BE87852B5/S0950268822000541a.pdf/validation_of_a_clinical_and_genetic_model_for_predicting_severe_covid19.pdf

Título	SARS-COV2 placentitis and pregnancy outcome: a multicentre experience during the Alpha and early Delta waves of coronavirus pandemic in England
Autor(es)	Sophie Stenton,Jo McPartland, Rajeev Shukla, Kerry Turner, Tamas Marton, Beata Hargitai, Andrew Bamber, Jeremy Pryce, Cesar L Peres,a Nadia Burguess,a Bart Wagner,Barbara Ciolka, William Simmons, Daniel Hurrell, Thivya Sekar,Corina Moldovan,Claire Trayers,Victoria Bryant,k Liina Palm,h and Marta C Cohen
Resumo	Pregnant women with SARS-CoV-2 infection experience higher rates of stillbirth and preterm birth. A unique pattern of chronic histiocytic intervillositis (CHI) and/or massive perivillous fibrin deposition (MPFD) has emerged, coined as SARS-CoV-2 placentitis.
Referências	STENTON, S. *et al.* SARS-COV2 placentitis and pregnancy outcome: a multicentre experience during the Alpha and early Delta waves of coronavirus pandemic in England. **eClinicalMedicine**, [Netherlands], v. 47, Apr. 15, 2022. Disponível em: https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(22)00119-5/fulltext. Acesso em: 29 abr. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2589-5370%2822%2900119-5

Título	Assessment of antibody and t-cell responses to the SARS-CoV-2 virus and omicron variant in unvaccinated individuals recovered from COVID-19 infection in Wuhan, China
Autor(es)	Li Guo, Qiao Zhang, Chongyang Zhang, Tingxuan Huang, Lili Ren, Bin Cao, Jianwei Wang
Resumo	Introduction ...The SARS-CoV-2 Omicron variant, which harbored 32 mutations in spike glycoproteins (S),[1] raised concern over the virus escaping from immunity induced by vaccination or natural infection.[2,3] However, the full extent to which the Omicron variant evades existing vaccine- or infection-derived antibodies, especially memory T-cell responses, has not been well characterized. In this cohort study, we assessed the antibody and T-cell responses to SARS-CoV-2 Wuhan and Omicron strains in individuals recovered from COVID-19.
Referências	LI, G. *et al.* Assessment of Antibody and T-Cell Responses to the SARS-CoV-2 Virus and Omicron Variant in Unvaccinated Individuals Recovered From COVID-19 Infection in Wuhan, China. **JAMA network open**, [United States], v. 5, n. 4, p. e229199, Apr. 27, 2022. DOI: 10.1001/jamanetworkopen.2022.9199. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.9199. Acesso em: 29 abr. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2791571

Título	Risk of appendicitis after mRNA COVID-19 vaccination in a danish population
Autor(es)	Helene Kildegaard, Louise Ladebo, Jacob Harbo Andersen, Peter Bjødstrup Jensen, Lotte Rasmussen, Per Damkier, Anton Pottegård
Resumo	Appendicitis has been reported as a potential adverse event after immunization with mRNA-based COVID-19 vaccines, based on trial data, adverse event report data, and observational data. We evaluated the risk of appendicitis after receiving an mRNA COVID-19 vaccination and after diagnosis of SARS-CoV-2 infection compared with the risk of appendicitis in unvaccinated individuals.
Referências	KILDEGAARD, H. *et al.* Risk of appendicitis after mRNA COVID-19 vaccination in a danish population. **JAMA internal medicine**, [United States], Apr. 25, 2022. Disponível em: https://doi.org/10.1001/jamainternmed.2022.1222. Acesso em: 29 abr. 2022.
Fonte	https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2791667

Título	COVID-19 vaccination and estimated public health impact in California
Autor(es)	Sophia T. Tan, Hailey J. Park; Isabel Rodríguez-Barraquer, George W. Rutherford, Kirsten Bibbins-Domingo, Robert Schechter, Nathan C. Lo
Resumo	Despite widespread vaccination against COVID-19 in the United States, there are limited empirical data quantifying their public health impact in the population.To estimate the number of COVID-19 cases, hospitalizations, and deaths directly averted because of COVID-19 vaccination in California.This modeling study used person-level data provided by the California Department of Public Health (CDPH) on COVID-19 cases, hospitalizations, and deaths as well as COVID-19 vaccine administration from January 1, 2020, to October 16, 2021. A statistical model was used to estimate the number of COVID-19 cases that would have occurred in the vaccine era (November 29, 2020, to October 16, 2021) in the absence of vaccination based on the ratio of the number of cases among the unvaccinated (aged <12 years) and vaccine-eligible groups (aged ≥12 years) before vaccine introduction. Vaccine-averted COVID-19 cases were estimated by finding the difference between the projected and observed number of COVID-19 cases. Averted COVID-19 hospitalizations and deaths were assessed by applying estimated hospitalization and case fatality risks to estimates of vaccine-averted COVID-19 cases. As a sensitivity analysis, a second independent model was developed to estimate the number of vaccine-averted COVID-19 outcomes by applying published data on vaccine effectiveness to data on COVID-19 vaccine administration and estimated risk of COVID-19 over time.COVID-19 vaccination.Number of COVID-19 cases, hospitalizations, and deaths estimated to have been averted because of COVID-19 vaccination.There were 4 585 248 confirmed COVID-19 cases, 240 718 hospitalizations, and 70 406 deaths in California from January 1, 2020, to October 16, 2021, during which 27 164 680 vaccine-eligible individuals aged 12 years and older were reported to have received at least 1 dose of a COVID-19 vaccine in the vaccine era (79.5% of the eligible population). The primary model estimated that COVID-19 vaccination averted 1 523 500 (95% prediction interval [PI], 976 800-2 230 800) COVID-19 cases in California, corresponding to a 72% (95% PI, 53%-91%) relative reduction in cases because of vaccination. COVID-19 vaccination was estimated to have averted 72 930 (95% PI, 53 250-99 160) hospitalizations and 19 430 (95%

Resumo	PI, 14 840-26 230) deaths during the study period. The alternative model identified comparable findings.This study provides evidence of the public health benefit of COVID-19 vaccination in the United States and further supports the urgency for continued vaccination.
Referências	TAN, S. T. *et al.* COVID-19 vaccination and estimated public health impact in California. **JAMA network open**, [United States], v. 5, n. 4, p. e228526, Apr. 22, 2022. DOI: 10.1001/jamanetworkopen.2022.8526. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.8526. Acesso em: 29 abr. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2791453

Título	A short series of case reports of COVID-19 in immunocompromised patients
Autor(es)	Mitali Mishra, Aleena Zahra, Lokendra V. Chauhan, Riddhi Thakkar, James Ng , Shreyas Joshi, Eric Spitzer ,Luis A. Marcos, Ian Lipkin, Nischay Mishra
Resumo	Immunocompromised individuals are at risk of prolonged SARS-CoV-2 infection due to weaker immunity, co-morbidities, and lowered vaccine effectiveness, which may evolve highly mutated variants of SARS-CoV-2. Nonetheless, limited data are available on the immune responses elicited by SARS-CoV-2 infection, reinfections, and vaccinations with emerging variants in immunocompromised patients. We analyzed clinical samples that were opportunistically collected from eight immunocompromised individuals for mutations in SARS-CoV-2 genomes, neutralizing antibody (NAb) titers against different SARS-CoV-2 variants, and the identification of immunoreactive epitopes using a high-throughput coronavirus peptide array. The viral genome analysis revealed two SARS-CoV-2 variants (20A from a deceased patient and an Alpha variant from a recovered patient) with an eight amino-acid (aa) deletion within the N-terminal domain (NTD) of the surface glycoprotein. A higher NAb titer was present against the prototypic USA/WA1/2020 strain in vaccinated immunocompromised patients. NAb titer was absent against the Omicron variant and the cultured virus of the 20A variant with eight aa deletions in non-vaccinated patients. Our data suggest that fatal SARS-CoV-2 infections may occur in immunocompromised individuals even with high titers of NAb post-vaccination. Moreover, persistent SARS-CoV-2 infection may lead to the emergence of newer variants with additional mutations favoring the survival and fitness of the pathogen that include deletions in NAb binding sites in the SARS-CoV-2 surface glycoprotein.
Referências	MISHRA, M. *et al.* A short series of case reports of COVID-19 in IMMUNOCOMPROMISED PATIEnts. **Viruses**, [Switzerland], v. 14, n. 5, p. 934, Apr. 29, 2022. DOI: 10.3390/v14050934. Disponível em: https://www.mdpi.com/1999-4915/14/5/934. Acesso em: 29 abr. 2022.
Fonte	https://www.mdpi.com/1999-4915/14/5/934

Título	Winning during a pandemic: epidemiology of SARS-CoV-2 during EURO2020 in Italy
Autor(es)	Flavia Riccardo, Emanuela Maria Frisicale, Giorgio Guzzetta, Federica Ferraro, Stefano Merler, Guido Maringhini, Matteo Spuri, Daniele Petrone, Maria Cristina Rota, Alessia Rapiti, Ulrico Angeloni, Pasqualino Rossi, Marco Tallon, Stefania Giannitelli, Patrizio Pezzotti, Martina Del Manso, Antonino Bella, Francesco Paolo Maraglino
Resumo	Introduction: EURO2020 generated a growing media and population interest across the month period, that peaked with large spontaneous celebrations across the country upon winning the tournament. Methods: We retrospectively analysed data from the national surveillance system (indicator based) and from event-based surveillance to assess how the epidemiology of SARS CoV-2 changed in June-July 2021 and to describe cases and clusters linked with EURO2020. Results: Widespread increases in transmission and case numbers, mainly among younger males, were documented in Italy, none were linked with stadium attendance. Vaccination coverage against SARS-CoV-2 was longer among cases linked to EURO2020 than among the general population. Conclusions: Transmission increased across the country, mainly due to gatherings outside the stadium, where, conversely, strict infection control measures were enforced. These informal “side” gatherings were dispersed across the entire country and difficult to control. Targeted communication and control strategies to limit the impact of informal gatherings occurring outside official sites of mass gathering events should be further developed.
Referências	RICCARDO, F. *et al.* Winning during a pandemic: epidemiology of SARS-CoV-2 during EURO2020 in Italy. **Epidemiology & Infection**, [United Kingdom], p. 1–22, Apr. 22, 2022. DOI: 10.1017/S0950268822000723. Disponível em: https://www.cambridge.org/core/journals/epidemiology-and-infection/article/winning-during-a-pandemic-epidemiology-of-sarscov2-during-euro2020-in-italy/839EC7DBF14FF6829600928D8D2084EA. Acesso em: 22 abr. 2022.
Fonte	https://www.cambridge.org/core/journals/epidemiology-and-infection/article/winning-during-a-pandemic-epidemiology-of-sarscov2-during-euro2020-in-italy/839EC7DBF14FF6829600928D8D2084EA

Título	Immunity acquired by a minority active fraction of the population could explain COVID-19 spread in Greater Buenos Aires (June-November 2020)
Autor(es)	Gabriel Fabricius, R. A. Borzi, Jos´e Caminos, Tom´as S. Grigera
Resumo	The COVID-19 pandemic had an uneven development in different countries. In Argentina, the pandemic began in march 2020 and, during the first 3 months, the vast majority of cases were concentrated in a densely populated region that includes the city of Buenos Aires (country capital) and the Greater Buenos Aires area that surrounds it. This work focuses on the spread of COVID-19 between June and November 2020 in Greater Buenos Aires. Within this period of time there was no vaccine, basically only the early wild strain of SARS-CoV-2 was present, and the official restriction and distancing measures in this region remained more or less constant. Under these particular conditions, the incidences show a sharp rise from June 2020 and begin to decrease towards the end of August until the end of November 2020. In this work we study, through mathematical modelling and available epidemiological information, the spread of COVID-19 in this region and period of time. We show that a coherent explanation of the evolution of incidences can be obtained assuming that only a minority fraction of the population got involved in the spread process, so that the incidences decreased as this group of people was becoming immune. The observed evolution of the incidences could then be a consequence at the population level of lasting immunity conferred by SARS-CoV-2.
Referências	FABRICIUS, G. *et al.* Immunity acquired by a minority active fraction of the population could explain COVID-19 spread in Greater Buenos Aires (June-November 2020). **Epidemiology & Infection**, [[United Kingdom], p. 1–42,Apr. 22, 2022. DOI: 10.1017/S0950268822000656. Disponível em: https://www.cambridge.org/core/journals/epidemiology-and-infection/article/immunity-acquired-by-a-minority-active-fraction-of-the-population-could-explain-covid19-spread-in-greater-buenos-aires-junenovember-2020/13E0E331D58D1EB80D32541A2B49FF64. Acesso em: 22 abr. 2022.
Fonte	https://www.cambridge.org/core/journals/epidemiology-and-infection/article/immunity-acquired-by-a-minority-active-fraction-of-the-population-could-explain-covid19-spread-in-greater-buenos-aires-junenovember-2020/13E0E331D58D1EB80D32541A2B49FF64

Título	Outbreak of delta variant SARS-CoV-2 virus on a psychogeriatric ward in Helsinki, Finland, August 2021; two-dose vaccination reduces mortality and disease severity amongst the elderly.
Autor(es)	Adnan Malik , Laura Lehtola , Sanna Isosomppi , Teemu Smura, Jaana Saarenheimo, Veli-Jukka Anttila
Resumo	Introduction Prior to the emergence of the omicron variant, the delta variant was the most transmissible variant of SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2). Development of SARS-CoV-2 vaccinations began before the emergence of the delta-variant. Age is a major risk factor for contracting SARS-CoV-2 virus, developing severe disease and mortality [1]. Two-dose vaccination has been shown to be effective against the delta variant [2] and thirddose booster doses have already started to be given. Reduced effectiveness of vaccination has been to be linked to advancing age [3,4,5]. We describe an outbreak of the delta variant on a psychogeriatric ward in which two-dose vaccination reduced mortality and severity of disease amongst elderly inpatients.
Referências	MALIK, A. *et al.* Outbreak of delta variant SARS-CoV-2 virus on a psychogeriatric ward in Helsinki, Finland, August 2021; two-dose vaccination reduces mortality and disease severity amongst the elderly. **Epidemiology & Infection**, [United Kingdom], p. 1–14, Apr. 20, 2022. DOI: 10.1017/S0950268822000589. Disponível em: https://www.cambridge.org/core/journals/epidemiology-and-infection/article/outbreak-of-delta-variant-sarscov2-virus-on-a-psychogeriatric-ward-in-helsinki-finland-august-2021-twodose-vaccination-reduces-mortality-and-disease-severity-amongst-the-elderly/4EB45B3F4306264478C98CD04C03E4F4. Acesso em: 22 abr. 2022.
Fonte	https://www.cambridge.org/core/journals/epidemiology-and-infection/article/outbreak-of-delta-variant-sarscov2-virus-on-a-psychogeriatric-ward-in-helsinki-finland-august-2021-twodose-vaccination-reduces-mortality-and-disease-severity-amongst-the-elderly/4EB45B3F4306264478C98CD04C03E4F4

Título	Longitudinal study of SARS-CoV-2 infections in different employee groups of long distance train services from June 2020 until February 2021 in Germany
Autor(es)	HyoungJin Kim, Robert Schultz-Heienbrok, Markus Uhle, Jenni Neubert , Fabian Ball, Matthes Metz, Christian Gravert
Resumo	This prospective longitudinal epidemiological study was aimed at investigating the occupational SARS-CoV-2 infection risk of long distance train services in Germany. Three different employee groups (train attendants, train drivers and maintenance workers) within the workforce of the German railway carrier Deutsche Bahn Fernverkehr AG were studied based on their contact frequency with passengers and colleagues. Approximately 1100 employees were tested by PCR for acute infections and by antibody detection for past infections in June 2020, October 2020 and February 2021. Cumulative incidence (acute and past infections) after the third (final) test series in February 2021 was 8.5% (95% interval CI 6.8 – 10.4): 8.5% (95% CI 6.2 – 11.2) for train attendants, 5.5% (95% CI 2.9 – 9.5) for train drivers and 11.8% (95% CI 7.6 – 17.2) for maintenance workers. Between June 2020 and October 2020, the incidence was 1.2% (95% CI 0.6-2.3): 1.2% (95% CI 0.4-2.7) for train attendants, 1.1% (95% CI 0.1-3.9) for train drivers and 1.4% (95% CI 0.17-5.10) for maintenance workers. Between October 2020 and February 2021, it was 5.1% (95% CI 3.6- 6.8): 5.2% (95% CI 3.3-7.8) for train attendants, 1.6% (95% CI 0.3-4.5) for train drivers and 8.8% (95% CI 4.9-14.3) for maintenance workers. Thus, contrary to expectation our exploratory data did not show train attendants to be at the highest risk of SARS-CoV-2 infections among the employee groups. In line with expectations, train drivers, representing the low contact group, seemed at lowest occupational risk.
Referências	KIM, H. *et al.* Longitudinal study of SARS-CoV-2 infections in different employee groups of long distance train services from June 2020 until February 2021 in Germany. **Epidemiology & Infection**, [United Kingdom], p. 1–22, Apr. 20, 2022. DOI: 10.1017/S095026882200070X . Disponível em: https://www.cambridge.org/core/product/identifier/S095026882200070X/type/journal_article. Acesso em: 22 abr. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/1E6AADC73729C38B31C84EAE64A0C42B/S095026882200070Xa.pdf/longitudinal_study_of_sarscov2_infections_in_different_employee_groups_of_long_distance_train_services_from_june_2020_until_february_2021_in_germany.pdf

Título	Hospital-acquired COVID-19 among patients of two acute-care hospitals: implications for surveillance
Autor(es)	Gabriel Fabricius, R. A. Borzi , Jos´e Caminos, Tom´as S. Grigera
Resumo	Objectives: We quantified hospital-acquired COVID-19 during the early phases of the pandemic, and we evaluated solely temporal determinations of hospital acquisition. Design: Retrospective observational study during early phases of the COVID-19 pandemic, March 1-November 30, 2020. We identified laboratory-detected SARS-CoV-2 from 30 days before admission through discharge. All episodes detected after hospital day 5 were categorized by chart review as community or unlikely hospital-acquired, or possible or probable hospitalacquired. Setting: Two acute-care hospitals in Chicago, IL. Patients: All hospitalized patients including an inpatient rehabilitation unit. Interventions: Each hospital implemented infection-control precautions soon after identifying COVID-19 cases, including patient- and staff-cohorting, universal masking, and restricted visitation policies. Results: Among 2,667 patients with SARS-CoV-2, detection before hospital day six was most common (n=2,612; 98%); days 6-14 uncommon (n=43; 1.6%); and, after day 14, rare (n=16; 0.6%). By chart review, most episodes after day 5 were categorized as community-acquired, usually because SARS-CoV-2 had been detected at a prior healthcare facility (68% of cases on days 6-14; 53% of cases after day 14). Incidence for possible and probable hospital-acquired cases, per 10,000 patient-days, was similar for ICU- and non-ICU patients at Hospitals A (1.2 vs 1.3, difference = 0.1; 95% CI, -2.8 to 3.0) and B (2.8 vs 1.2, difference = 1.6; 95% CI, -0.1 to 4.0). Conclusions: Most patients were protected by early and sustained application of infectioncontrol precautions, modified to reduce COVID-19 transmission. Using solely temporal criteria to discriminate hospital- vs community-acquisition would have misclassified many “late-onset” SARS-CoV-2 positive episodes.
Referências	TRICK, W. E. *et al.* Hospital-acquired COVID-19 among patients of two acute-care hospitals: implications for surveillance. **Infection control & hospital epidemiology**, [United Kingdom], p. 1–17, Apr. 19, 2022. DOI: 10.1017/ice.2021.510. Disponível em: https://www.cambridge.org/core/product/identifier/S0899823X21005109/type/journal_article. Acesso em: 22 abr. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/C8790707E5B37508EA4687C33CC27408/S0899823X21005109a.pdf/hospitalacquired_covid19_among_patients_of_two_acutecare_hospitals_implications_for_surveillance.pdf

Título	Vaccine effectiveness against SARS-CoV-2 infection and severe outcomes among individuals with immune-mediated inflammatory diseases tested between March 1 and Nov 22, 2021, in Ontario, Canada: a population-based analysis
Autor(es)	Jessica Widdifield, Jeffrey C Kwong, Simon Chen, Lihi Eder, Eric I Benchimol, Gilaad G Kaplan, Carol Hitchon, J Antonio Aviña-Zubieta, Diane Lacaille, Hannah Chung, Sasha Bernatsky
Resumo	We estimated COVID-19 vaccine effectiveness against SARS-CoV-2 infection and severe COVID-19 outcomes among individuals with immune-mediated inflammatory diseases in Ontario, Canada.
Referências	WIDDIFIELD, J. *et al.* Vaccine effectiveness against SARS-CoV-2 infection and severe outcomes among individuals with immune-mediated inflammatory diseases tested between March 1 and Nov 22, 2021, in Ontario, Canada: a population-based analysis. **Lancet. Rheumatology**, [United Kingdom], p. S2665991322000960, Apr. 14, 2022. DOI: 10.1016/S2665-9913(22)00096-0. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S2665991322000960. Acesso em: 22 abr. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2665-9913%2822%2900096-0

Título	The performance of wearable sensors in the detection of SARS-CoV-2 infection: a systematic review
Autor(es)	Marianna Mitratza, Brianna Mae Goodale, Aizhan Shagadatova, Vladimir Kovacevic, Janneke van de Wijgert, Timo B Brakenhoff, Richard Dobson, Billy Franks, Duco Veen, Amos A Folarin, Pieter Stolk, Diederick E Grobbee, Maureen Cronin, George S Downward
Resumo	Containing the COVID-19 pandemic requires rapidly identifying infected individuals. Subtle changes in physiological parameters (such as heart rate, respiratory rate, and skin temperature), discernible by wearable devices, could act as early digital biomarkers of infections. Our primary objective was to assess the performance of statistical and algorithmic models using data from wearable devices to detect deviations compatible with a SARS-CoV-2 infection. We searched MEDLINE, Embase, Web of Science, the Cochrane Central Register of Controlled Trials (known as CENTRAL), International Clinical Trials Registry Platform, and ClinicalTrials.gov on July 27, 2021 for publications, preprints, and study protocols describing the use of wearable devices to identify a SARS-CoV-2 infection. Of 3196 records identified and screened, 12 articles and 12 study protocols were analysed. Most included articles had a moderate risk of bias, as per the National Institute of Health Quality Assessment Tool for Observational and CrossSectional Studies. The accuracy of algorithmic models to detect SARS-CoV-2 infection varied greatly (area under the curve 0·52–0·92). An algorithm's ability to detect presymptomatic infection varied greatly (from 20% to 88% of cases), from 14 days to 1 day before symptom onset. Increased heart rate was most frequently associated with SARS-CoV-2 infection, along with increased skin temperature and respiratory rate. All 12 protocols described prospective studies that had yet to be completed or to publish their results, including two randomised controlled trials. The evidence surrounding wearable devices in the early detection of SARS-CoV-2 infection is still in an early stage, with a limited overall number of studies identified. However, these studies show promise for the early detection of SARS-CoV-2 infection. Large prospective, and preferably controlled, studies recruiting and retaining larger and more diverse populations are needed to provide further evidence.
Referências	MITRATZA, M. *et al.* The performance of wearable sensors in the detection of SARS-CoV-2 infection: a systematic review. **The Lancet. Digital health**, [United Kingdom], v. 4, n. 5, p. e370–e383, April 2022. DOI: 10.1016/S2589-7500(22)00019-X. Disponível em: https://www.thelancet.com/journals/landig/article/PIIS2589-7500(22)00019-X/fulltext. Acesso em: 22 abr. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2589-7500%2822%2900019-X

Título	Association of short-term air pollution exposure with SARS-CoV-2 infection among young adults in sweden
Autor(es)	Zhebin Yu, Tom Bellander, Anna Bergström, ; Joakim Dillner, Kristina Eneroth, Magnuz Engardt, Antonios Georgelis, Inger Kull, Petter Ljungman, Göran Pershagen, Massimo Stafoggia, Erik Melén, Olena Gruzieva
Resumo	Mounting ecological evidence shows an association between short-term air pollution exposure and COVID-19, yet no study has examined this association on an individual level.To estimate the association between short-term exposure to ambient air pollution and SARS-CoV-2 infection among Swedish young adults.This time-stratified case-crossover study linked the prospective BAMSE (Children, Allergy Milieu, Stockholm, Epidemiology [in Swedish]) birth cohort to the Swedish national infectious disease registry to identify cases with positive results for SARS-CoV-2 polymerase chain reaction (PCR) testing from May 5, 2020, to March 31, 2021. Case day was defined as the date of the PCR test, whereas the dates with the same day of the week within the same calendar month and year were selected as control days. Data analysis was conducted from September 1 to December 31, 2021.Daily air pollutant levels (particulate matter with diameter ≤2.5 µm [PM2.5], particulate matter with diameter ≤10 µm [PM10], black carbon [BC], and nitrogen oxides [NOx]) at residential addresses were estimated using dispersion models with high spatiotemporal resolution.Confirmed SARS-CoV-2 infection among participants within the BAMSE cohort. Distributed-lag models combined with conditional logistic regression models were used to estimate the association.A total of 425 cases were identified, of whom 229 (53.9%) were women, and the median age was 25.6 (IQR, 24.9-26.3) years. The median exposure level for PM2.5 was 4.4 [IQR, 2.6-6.8] µg/m3 on case days; for PM10, 7.7 [IQR, 4.6-11.3] µg/m3 on case days; for BC, 0.3 [IQR, 0.2-0.5] µg/m3 on case days; and for NOx, 8.2 [5.6-14.1] µg/m3 on case days. Median exposure levels on control days were 3.8 [IQR, 2.4-5.9] µg/m3 for PM2.5, 6.6 [IQR, 4.5-10.4] µg/m3 for PM10, 0.2 [IQR, 0.2-0.4] µg/m3 for BC, and 7.7 [IQR, 5.3-12.8] µg/m3 for NOx. Each IQR increase in short-term exposure to PM2.5 on lag 2 was associated with a relative increase in positive results of SARS-CoV-2 PCR testing of 6.8% (95% CI, 2.1%-11.8%); exposure to PM10 on lag 2, 6.9% (95% CI, 2.0%-12.1%); and exposure to BC on lag 1, 5.8% (95% CI, 0.3%-11.6%).

Resumo	These findings were not associated with NOx, nor were they modified by sex, smoking, or having asthma, overweight, or self-reported COVID-19 respiratory symptoms.The findings of this case-crossover study of Swedish young adults suggest that short-term exposure to particulate matter and BC was associated with increased risk of positive PRC test results for SARS-CoV-2, supporting the broad public health benefits of reducing ambient air pollution levels.
Referências	ZHEBIN, Yu. *et al.* Association of Short-term Air Pollution Exposure With SARS-CoV-2 Infection Among Young Adults in Sweden. **JAMA network open**, [United States], v. 5, n. 4, p. e228109, Apr. 20, 2022. DOI: 10.1001/jamanetworkopen.2022.8109. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.8109. Acesso em: 22 abr. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2791305

Título	Effectiveness of mRNA-1273, BNT162b2, and JNJ-78436735 COVID-19 vaccines among us military personnel before and during the predominance of the Delta variant
Autor(es)	Angelia A. Eick-Cost, Saixia Ying, Natalie Wells
Resumo	No studies to date have evaluated the effectiveness of 3 COVID-19 vaccines in the US military population, especially during the circulation of the SARS-CoV-2 Delta (B.1.617.2) variant.To estimate the effectiveness of the mRNA-1273, BNT162b2, and JNJ-78436735 vaccines among US military personnel before and during the predominance of the Delta variant in the US.This case-control study was conducted among all unvaccinated and fully vaccinated US military personnel who had a documented SARS-CoV-2 test performed in the US between January 1 and September 24, 2021. Individuals were identified using Department of Defense (DOD) electronic medical, laboratory, and surveillance databases. The pre-Delta period was defined as January 1 to May 31, 2021, and the Delta period as June 19 to September 24, 2021. Case individuals were defined by a positive polymerase chain reaction SARS-CoV-2 test result or a positive antigen test result with symptoms. Control individuals had at least 1 negative SARS-CoV-2 test result.COVID-19 vaccination with the mRNA-1273, BNT162b2, or JNJ-78436735 vaccine, assessed from DOD electronic vaccination records.COVID-19 vaccine effectiveness overall, by vaccine type, and by outcome stratified by the pre-Delta and Delta periods in the US. Vaccine effectiveness was estimated as 100 × (1 − odds ratio) in a logistic regression model with adjustment for potential confounders.The cohort included 441 379 individuals, with 290 256 in the pre-Delta period (236 555 [81%] male; median age, 25 years [range, 17-68 years]) and 151 123 in the Delta period (120 536 [80%] male; median age, 26 years [range, 17-70 years]). Adjusted vaccine effectiveness of all vaccines was significantly higher during the pre-Delta period (89.2%; 95% CI, 88.1%-90.1%) compared with the Delta period (70.2%; 95% CI, 69.3%-71.1%) for all outcomes, an overall decrease of 19%. mRNA-1273 vaccine effectiveness was highest in the pre-Delta (93.5%; 95% CI, 91.9%-94.7%) and Delta (79.4%; 95% CI, 78.3%-80.4%) periods for all outcomes, whereas the JNJ-78436735 vaccine had the lowest effectiveness during the pre-Delta (81.8%; 95% CI, 74.2%- 87.1%) and Delta (38.3%; 95% CI, 34.5%-41.9%) periods. Effectiveness for all vaccines during both periods was higher for symptomatic infection

Resumo	and hospitalization among individuals with SARS-CoV-2 infection.In this case-control study, among US military personnel, COVID-19 vaccine effectiveness was significantly lower during the period when the Delta variant predominated compared with the period before Delta variant predominance; this was especially true for the JNJ-78436735 vaccine. These findings were confounded by time since vaccination; this and the change in effectiveness support the need for booster doses and continued evaluation of vaccine effectiveness as new variants of SARS-CoV-2 emerge.
Referências	EICK-COST, A. A.; YING, S.; WELLS, N. Effectiveness of mRNA-1273, BNT162b2, and JNJ-78436735 COVID-19 vaccines among us military personnel before and during the predominance of the Delta variant. **JAMA network open**, [United States], v. 5, n. 4, p. e228071, Apr. 20, 2022. DOI: 10.1001/jamanetworkopen.2022.8071. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.8071. Acesso em: 22 abr. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2791306

Título	Rates of COVID-19 among unvaccinated adults with prior COVID-19
Autor(es)	Jessica P. Ridgway, Samuel Tideman, Bill Wright, Ari Robicsek
Resumo	Introduction...Risk of SARS-CoV-2 reinfection among unvaccinated people with prior COVID-19 is a subject of debate.[1,2] We performed a survival analysis in a large US population to assess the degree and duration of protection associated with natural immunity in unvaccinated individuals.
Referências	RIDGWAY, J. P. *et al.* Rates of COVID-19 Among unvaccinated adults with prior COVID-19. **JAMA network open**, [United States], v. 5, n. 4, p. e227650, Apr. 20, 2022. DOI: 10.1001/jamanetworkopen.2022.7650. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.7650. Acesso em: 22 abr. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2791312

Título	SARS-CoV-2 vaccination and myocarditis in a nordic cohort study of 23 million residents
Autor(es)	Øystein Karlstad, Petteri Hovi, ; Anders Husby, Tommi Härkänen, Randi Marie Selmer, Nicklas Pihlström, Jørgen Vinsløv Hansen, Hanna Nohynek, Nina Gunnes, Anders Sundström, BA, Jan Wohlfahrt, Tuomo A. Nieminen, Maria Grünewald, Hanne Løvdal Gulseth, Anders Hviid, Rickard Ljung
Resumo	Reports of myocarditis after SARS-CoV-2 messenger RNA (mRNA) vaccination have emerged.To evaluate the risks of myocarditis and pericarditis following SARS-CoV-2 vaccination by vaccine product, vaccination dose number, sex, and age.Four cohort studies were conducted according to a common protocol, and the results were combined using meta-analysis. Participants were 23 122 522 residents aged 12 years or older. They were followed up from December 27, 2020, until incident myocarditis or pericarditis, censoring, or study end (October 5, 2021). Data on SARS-CoV-2 vaccinations, hospital diagnoses of myocarditis or pericarditis, and covariates for the participants were obtained from linked nationwide health registers in Denmark, Finland, Norway, and Sweden.The 28-day risk periods after administration date of the first and second doses of a SARS-CoV-2 vaccine, including BNT162b2, mRNA-1273, and AZD1222 or combinations thereof. A homologous schedule was defined as receiving the same vaccine type for doses 1 and 2.Incident outcome events were defined as the date of first inpatient hospital admission based on primary or secondary discharge diagnosis for myocarditis or pericarditis from December 27, 2020, onward. Secondary outcome was myocarditis or pericarditis combined from either inpatient or outpatient hospital care. Poisson regression yielded adjusted incidence rate ratios (IRRs) and excess rates with 95% CIs, comparing rates of myocarditis or pericarditis in the 28-day period following vaccination with rates among unvaccinated individuals.Among 23 122 522 Nordic residents (81% vaccinated by study end; 50.2% female), 1077 incident myocarditis events and 1149 incident pericarditis events were identified. Within the 28-day period, for males and females 12 years or older combined who received a homologous schedule, the second dose was associated with higher risk of myocarditis, with adjusted IRRs of 1.75 (95% CI, 1.43-2.14) for BNT162b2 and 6.57 (95% CI, 4.64-9.28) for mRNA-1273. Among males 16 to 24 years of age, adjusted IRRs were 5.31 (95% CI, 3.68-7.68) for a second dose of BNT162b2 and 13.83

Resumo	(95% CI, 8.08-23.68) for a second dose of mRNA-1273, and numbers of excess events were 5.55 (95% CI, 3.70-7.39) events per 100 000 vaccinees after the second dose of BNT162b2 and 18.39 (9.05-27.72) events per 100 000 vaccinees after the second dose of mRNA-1273. Estimates for pericarditis were similar.Results of this large cohort study indicated that both first and second doses of mRNA vaccines were associated with increased risk of myocarditis and pericarditis. For individuals receiving 2 doses of the same vaccine, risk of myocarditis was highest among young males (aged 16-24 years) after the second dose. These findings are compatible with between 4 and 7 excess events in 28 days per 100 000 vaccinees after BNT162b2, and between 9 and 28 excess events per 100 000 vaccinees after mRNA-1273. This risk should be balanced against the benefits of protecting against severe COVID-19 disease.
Referências	KARLSTAD, Ø. *et al.* SARS-CoV-2 Vaccination and Myocarditis in a Nordic Cohort Study of 23 Million Residents. **JAMA cardiology**, [United States], Apr. 20, 2022. DOI: 10.1001/jamacardio.2022.0583. . Disponível em: https://doi.org/10.1001/jamacardio.2022.0583. Acesso em: 22 abr. 2022.
Fonte	https://jamanetwork.com/journals/jamacardiology/fullarticle/2791253

Título	Short-term Adverse Events After the Third Dose of the BNT162b2 mRNA COVID-19 Vaccine in Adults 60 Years or Older
Autor(es)	Oren Auster, Uriah Finkel, Noa Dagan, Noam Barda, Alon Laufer, Ran D. Balicer, Shay Ben-Shachar
Resumo	Introduction... On July 29, 2021, concerns of waning immunity after Pfizer-BioNTech BNT162B2 mRNA vaccination led the Israeli Ministry of Health to start a campaign to administer booster (third) doses to individuals who received their second dose at least 5 months prior. The booster was initially approved for individuals 60 years or older. This survey study assessed the occurrence of adverse effects (AEs) in adults 60 years or older who received a booster dose.
Referências	AUSTER, O. *et al.* Short-term Adverse Events After the Third Dose of the BNT162b2 mRNA COVID-19 Vaccine in Adults 60 Years or Older. **JAMA network open**, [United States], v. 5, n. 4, p. e227657, Apr. 18, 2022. DOI: 10.1001/jamanetworkopen.2022.7657. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.7657. Acesso em: 22 abr. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2791203

Título	Psychosis and Substance Abuse increase the COVID-19 mortality risk
Autor(es)	Ana Catalan, Claudia Aymerich, Amaia Bilbao, Borja Pedruzo, José Luis Pérez, Nerea Aranguren , Gonzalo Salazar de Pablo, Emily Hedges, Patxi Gil , Rafael Segarra , Ana González-Pinto, Aranzazu Fernández-Rivas, Lucía Inchausti, Philip McGuire, Paolo Fusar-Poli, Miguel Ángel González-Torres
Resumo	Background: The COVID-19 pandemic has been a global challenge. High mortality rates have been reported in some risk groups, including patients with pre-existing mental disorders. Methods: We used electronic health records to retrospectively identify people infected due to COVID-19 (between March 2020 and March 2021) in the three territories of the Basque Country. COVID-19 cases were defined as individuals who had tested positive on a reverse transcription-Polymerase Chain Reaction (PCR) test. Univariate and multivariate logistic regression models and multilevel analyses with generalized estimated equations were used to determine factors associated with COVID-19-related mortality and hospital admission. Results: The COVID-19 mortality rate was increased for patients with psychotic disorders (OR adjusted: 1.45, 95% CI [1.09, 1.94], p=.0114) and patients with substance abuse (OR adjusted: 1.88, 95%CI [1.13, 3.14, p<0.0152]. The mortality rate was lower for patients with affective disorders (OR adjusted: 0.80, 95%CI [0.61, 0.99], p=0.0407). Hospital admission rates due to COVID-19 were higher in psychosis (OR adjusted: 2.90, 95%CI [2.36, 3.56], p<0·0001) and anxiety disorder groups (OR adjusted: 1.54, 95%CI [1.37, 1.72], p<0·0001). Among admitted patients, COVID19 mortality rate was decreased for those with affective disorders rate (OR adjusted: 0.72,95% CI [0.55, 0.95], p=0.0194). Conclusions: COVID-19-related mortality and hospitalizations rates were higher for patients with a pre-existing psychotic disorder.
Referências	CATALAN, A. *et al.* Psychosis and Substance Abuse increase the COVID-19 mortality risk. **Psychological medicine**, [United Kingdom], p. 1–23, Apr. 12, 2022. DOI: 10.1017/S0033291722000976. Disponível em: https://www.cambridge.org/core/journals/psychological-medicine/article/psychosis-and-substance-abuse-increase-the-covid19-mortality-risk/F19DF617C1E2C9058DB9E81CDB501CDE. Acesso em: 14 abr. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/F19DF617C1E2C9058DB9E81CDB501CDE/S0033291722000976a.pdf/psychosis_and_substance_abuse_increase_the_covid19_mortality_risk.pdf

Título	Inflammatory responses in the placenta upon SARS-CoV-2 infection late in pregnancy
Autor(es)	Lissenya B. Argueta, Lauretta A. Lacko, Yaron Bram, Takuya Tada, Lucia Carrau, André Figueiredo Rendeiro, Tuo Zhang, Skyler Uhl, Brienne C. Lubor, Vasuretha Chandar, Cristianel Gil, Wei Zhang, Brittany J. Dodson, Jeroen Bastiaans, Malavika Prabhu, Sean Houghton, David Redmond, Christine M. Salvatore, Yawei J. Yang, Olivier Elemento, Rebecca N. Baergen, Benjamin R. tenOever, Nathaniel R. Landau, Shuibing Chen, Robert E. Schwartz, Heidi Stuhlmann
Resumo	The effect of SARS-CoV-2 infection on placental function is not well understood. Analysis of placentas from women who tested positive at delivery showed SARS-CoV-2 genomic and subgenomic RNA in 22 out of 52 placentas. Placentas from two mothers with symptomatic COVID-19 whose pregnancies resulted in adverse outcomes for the fetuses contained high levels of viral Alpha variant RNA. The RNA was localized to the trophoblasts that cover the fetal chorionic villi that are in direct contact with maternal blood. The intervillous spaces and villi were infiltrated with maternal macrophages and T cells. Transcriptome analysis showed increased expression of chemokines and pathways associated with viral infection and inflammation. Infection of placental cultures with live SARS-CoV-2 and spike protein-pseudotyped lentivirus showed infection of syncytiotrophoblast and, in rare cases, endothelial cells mediated by ACE2 and Neuropilin-1. Viruses with Alpha, Beta and Delta variant spikes infected the placental cultures at significantly greater levels
Referências	ARGUETA, L. B. *et al.* Inflammatory responses in the placenta upon SARS-CoV-2 infection late in pregnancy. **iScience**, [Netherlands], p. 104223, Apr. 11, 2022. DOI: 10.1016/j.isci.2022.104223. Disponível em: https://www.cell.com/iscience/abstract/S2589-0042(22)00493-X. Acesso em: 14 abr. 2022.
Fonte	https://www.cell.com/iscience/fulltext/S2589-0042(22)00493-X#relatedArticles

Título	Efficient recall of Omicron-reactive B cell memory after a third dose of SARS-CoV-2 mRNA vaccine
Autor(es)	Rishi R. Goel, Mark M. Painter, Kendall A. Lundgreen, Sokratis A. Apostolidis, Amy E. Baxter, Josephine R. Giles, Divij Mathew, Ajinkya Pattekar, Arnold Reynaldi, David S. Khoury, Sigrid Gouma, Philip Hicks, Sarah Dysinger, Amanda Hicks, Harsh Sharma, Sarah Herring, Scott Korte, Wumesh KC, Derek A. Oldridge, Rachel I. Erickson, Madison E. Weirick, Christopher M. McAllister, Moses Awofolaju, Nicole Tanenbaum, Jeanette Dougherty, Sherea Long, Kurt D'Andrea, Jacob T. Hamilton, Maura McLaughlin, Justine C. Williams, Sharon Adamski, Oliva Kuthuru, Elizabeth M. Drapeau, Miles P. Davenport, Scott E. Hensley, Paul Bates, Allison R. Greenplate, E. John Wherry
Resumo	We examined antibody and memory B cell responses longitudinally for ~9-10 months after primary 2-dose SARS-CoV-2 mRNA vaccination and 3 months after a 3rd dose. Antibody decay stabilized between 6 to 9 months and antibody quality continued to improve for at least 9 months after 2-dose vaccination. Spike- and RBD-specific memory B cells remained durable over time, and 40-50% of RBD-specific memory B cells simultaneously bound the Alpha, Beta, Delta, and Omicron variants. Omicron-binding memory B cells were efficiently re-activated by a 3rd dose of wild-type vaccine and correlated with the corresponding increase in neutralizing antibody titers. In contrast, pre-3rd dose antibody titers inversely correlated with the fold-change of antibody boosting, suggesting that high levels of circulating antibodies may limit the added protection afforded by repeat short interval boosting. These data provide insight into the quantity and quality of mRNA vaccine-induced immunity over time through 3 or more antigen exposures.
Referências	GOEL, R. R. *et al.* Efficient recall of Omicron-reactive B cell memory after a third dose of SARS-CoV-2 mRNA vaccine. **Cell**, [United States], p. S0092867422004561, Apr. 7, 2022. DOI: 10.1016/j.cell.2022.04.009. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S0092867422004561. Acesso em: 14 abr. 2022.
Fonte	https://www.cell.com/action/showPdf?pii=S0092-8674%2822%2900456-1

Título	Dosing interval strategies for two-dose COVID-19 vaccination in 13 middle-income countries of Europe: Health impact modelling and benefit-risk analysis
Autor(es)	Yang Liu, Carl A.B. Pearson, Frank G. Sandmann, Rosanna C. Barnard, Jong-Hoon Kim, Stefan Flasche,Mark Jit, Kaja Abbas
Resumo	In settings where the COVID-19 vaccine supply is constrained, extending the intervals between the first and second doses of the COVID-19 vaccine may allow more people receive their first doses earlier. Our aim is to estimate the health impact of COVID-19 vaccination alongside benefit-risk assessment of different dosing intervals in 13 middle-income countries (MICs) of Europe.
Referências	YANG, Liu. *et al.* Dosing interval strategies for two-dose COVID-19 vaccination in 13 middle-income countries of Europe: Health impact modelling and benefit-risk analysis. **The Lancet regional health. Europe**, [United Kingdom], Apr. 11, 2022. doi: 10.1016/j.lanepe.2022.100381. Disponível em: https://www.thelancet.com/journals/lanepe/article/PIIS2666-7762(22)00074-6/fulltex. . Acesso em: 14 abr. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2666-7762%2822%2900074-6

Título	Persistent symptoms after SARS-CoV-2 infection: Long-term implications for health and quality of life
Autor(es)	Mike K.P., Amanda M.Y. Chu, Agnes Tiwari
Resumo	People who have been infected with SARS-CoV-2 may suffer persistent symptoms after infection such as fatigue, dyspnea dysgeusia/anosmia, asthenia, brain fog and insomnia. These persistent symptoms can last for weeks or months, and their negative impacts can be as worrying as the risk of contracting SARS-CoV-2 infection itself. In this issue of [...]
Referências	SO, M. K. P.; CHU, A. M. Y.; TIWARI, A. Persistent symptoms after SARS-CoV-2 infection: Long-term implications for health and quality of life. **The Lancet regional health. Europe**, [[United Kingdom], v. 17, Mar. 2022. Disponível em: https://www.thelancet.com/journals/lanepe/article/PIIS2666-7762(22)00066-7/fulltext.. Acesso em: 14 abr. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2666-7762%2822%2900066-7

Atualizado em: 24 de junho de 2022

Título	Myocarditis Adverse Event Less Common After COVID-19 Vaccine Booster
Autor(es)	Bridget M. Kuehn
Resumo	The risk of adolescents developing myocarditis is lower after a booster dose of the BNT162b2 (Pfizer-BioNTech) COVID-19 vaccine than after the second dose, according to a CDC analysis of data from the Vaccine Adverse Event Reporting System (VAERS).Myocarditis is a rare but serious adverse event associated with COVID-19 mRNA vaccination. To assess whether this adverse event was also associated with booster doses administered to adolescents, the authors analyzed reports submitted to the VAERS system and v-safe between December 9, 2021, and February 20, 2022.
Referências	KUEHN, B. M. Myocarditis Adverse Event Less Common After COVID-19 Vaccine Booster. **JAMA**, [United States], v. 327, n. 14, p. 1324, Apr. 14, 2022. DOI: 10.1001/jama.2022.4582. Disponível em: https://doi.org/10.1001/jama.2022.4582. Acesso em: 14 abr. 2022.
Fonte	https://jamanetwork.com/journals/jama/fullarticle/2790928

Título	Trends in Maternal Outcomes During the COVID-19 Pandemic in Alabama From 2016 to 2021
Autor(es)	Vivek V. Shukla, AKM Fazlur Rahman, Xuejun Shen, Allison Black, Arie Nakhmani, Namasivayam Ambalavanan, Waldemar A. Carlo
Resumo	Introduction ...The COVID-19 pandemic has been associated with worse health outcomes in patients infected with COVID-19 and patients who were not infected,[1-3] including worse pregnancy-related outcomes.[4] This population-based study with individual participant data covers the period from before the pandemic (2016-2019) to during the pandemic (from March 2020 to September 2021) and is the first, to our knowledge, to compare the risk of maternal mortality and morbidities in the initial and Delta pandemic periods with the baseline period.[4] This study assesses whether the COVID-19 pandemic is associated with an increase in the risk of maternal mortality.
Referências	SHUKLA, V. V. *et al.* Trends in Maternal Outcomes During the COVID-19 Pandemic in Alabama From 2016 to 2021. **JAMA network open**, [United States], v. 5, n. 4, p. e222681, Apr. 13, 2022. DOI: 10.1001/jamanetworkopen.2022.2681. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.2681. Acesso em: 14 abr. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2791008

Título	Dynamic changes of SARS-CoV-2 specific IgM and IgG among population vaccinated with COVID-19 vaccine
Autor(es)	Chen Fengling, Zhong Yi, Li Jiazhao, Luo Jianrong
Resumo	To evaluate the dynamic changes of antibody levels in different groups after inoculation with COVID-19 vaccine. The 1493 subjects who were tested for IgM and IgG against SARS-CoV-2 at Qionglai Medical Center Hospital from June to October in 2021 were accepted for analyses of geometric mean titer (GMT) of IgG and IgM. The overall GMT of IgM and IgG in the population of Qionglai reached at a peak value at 1.497(+3.810, -3.810) S/CO and 4.048(+2.059, -2.059) S/CO in the second week, and then gradually decreased to 0.114(+2.707, -2.707) and 1.885(+1.506, -1.506) S/CO in the 11th-25th weeks, respectively. IgG was positive within 1 day, after that GMT increased continuously and peaked on the 13th day. There was significant difference between male and female groups for titer of IgM during prior 2 weeks and among three age groups for titer of IgG during the 2nd-3rd week after vaccination. The GMT level of IgG in the population vaccinated with COVID-19 vaccine remained at a high level within 25 weeks and peaked on the 13th day, indicating that IgG could exist for a longer period and exhibiting positive SARS-CoV-2- defending effect.
Referências	CHEN, F. *et al.* Dynamic changes of SARS-CoV-2 specific IgM and IgG among population vaccinated with COVID-19 vaccine. **Epidemiology & Infection**, [United Kingdom], p. 1–17, Apr. 8, 2022. DOI: 10.1017/S0950268822000632. Disponível em: https://www.cambridge.org/core/journals/epidemiology-and-infection/article/dynamic-changes-of-sarscov2-specific-igm-and-igg-among-population-vaccinated-with-covid19-vaccine/A6B321F5A1E4871C6453288E02349BAD. Acesso em: 8 abr. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/A6B321F5A1E4871C6453288E02349BAD/S0950268822000632a.pdf/dynamic_changes_of_sarscov2_specific_igm_and_igg_among_population_vaccinated_with_covid19_vaccine.pdf

Título	Predictors of persistent symptoms after SARS-CoV-2 infection among healthcare workers: results of a multi-site survey
Autor(es)	Aurora Pop-Vicas, Fauzia Osman, Geoffrey Tsaras, Claire Seigworth, L. Silvia Munoz-Price, Nasia Safdar
Resumo	INTRODUCTION: The COVID-19 pandemic continues, and healthcare workers (HCW) are at increased risk of infection.1 In addition to the morbidity associated with initial illness, persistent post-viral symptoms, currently classified as post-acute sequelae of COVID-19, 2 also affect HCW, causing further disruptions in their work, home and social lives.3 To further characterize PASC in this population who is otherwise expected to be highly functional and in relatively good health, we aimed to identify predictors and functional status of HCW with persistent symptoms beyond 4 weeks after their initial COVID-19 diagnosis [...]
Referências	POP-VICAS, A. *et al.* Predictors of persistent symptoms after SARS-CoV-2 infection among healthcare workers: results of a multi-site survey. **Infection control & hospital epidemiology**, [United Kingdom], p. 1–11, Apr. 6, 2022. DOI: 10.1017/ice.2022.56. Disponível em: https://www.cambridge.org/core/product/identifier/S0899823X22000563/type/journal_article. Acesso em: 8 abr. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/85E830A7824DC842DEFD8CF6792ECD96/S0899823X22000563a.pdf/predictors_of_persistent_symptoms_after_sarscov2_infection_among_healthcare_workers_results_of_a_multisite_survey.pdf

Título	If you can't measure it, you can't improve it: Practical tools to assess ventilation and airflow patterns to reduce the risk for transmission of severe acute respiratory syndrome coronavirus 2 and other airborne pathogens
Autor(es)	Jennifer L. Cadnum, Curtis J. Donskey
Resumo	One limitation of the coronavirus disease 2019 (COVID-19) pandemic response has been the lack of widely available, practical tools to measure factors such as ventilation and airflow that can impact transmission risk. The Centers for Disease Control and Prevention (CDC) has recommended that steps be taken to improve ventilation in healthcare facilities, schools, businesses, and households.1 However, limited guidance has been provided on how to evaluate the adequacy of ventilation. To be useful in real-world settings, tools to assess ventilation must be inexpensive, safe, and easy to use. An ideal tool would provide rapid and easy to interpret results that could be used to identify areas with inadequate ventilation and assess the impact of interventions [...]
Referências	WEBER, D. J. *et al.* Response to "Severe acute respiratory coronavirus virus 2 (SARS-CoV-2) surface contamination in staff common areas and impact on healthcare worker infection: Prospective surveillance during the coronavirus disease 2019 (COVID-19) pandemic". **Infection control & hospital epidemiology**, [United Kingdom], p. 1–5, Apr. 5, 2022. DOI: 10.1017/ice.2022.63 . Disponível em: https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/response-to-severe-acute-respiratory-coronavirus-virus-2-sarscov2-surface-contamination-in-staff-common-areas-and-impact-on-healthcare-worker-infection-prospective-surveillance-during-the-coronavirus-disease-2019-covid19-pandemic/6EEF45498290793B1385D595FF577518. Acesso em: 8 abr. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/DF034684ECA81211507A1F42A84ECA69/S0950268821002016a.pdf/first_reported_nosocomial_sarscov2_outbreak_in_a_hospitalbased_laundry_facility.pdf

Título	Geospatial analysis of a COVID-19 outbreak at the University of Wisconsin – Madison: potential role of a cluster of local bars
Autor(es)	Jeffrey E. Harris
Resumo	We combined smartphone mobility data with census track-based reports of positive case counts to study a COVID-19 outbreak at the University of Wisconsin-Madison campus, where nearly 3,000 students had become infected by the end of September 2020. We identified a cluster of twenty bars located at the epicenter of the outbreak, in close proximity to campus residence halls. Smartphones originating from the two hardest hit residence halls (Sellery-Witte), where about one in five students were infected, were 2.95 times more likely to visit the 20-bar cluster than smartphones originating in two more distant, less affected residence halls (OggSmith). By contrast, smartphones from Sellery-Witte were only 1.55 times more likely than those from Ogg-Smith to visit a group of 68 restaurants in the same area (rate ratio 1.91, 95% CI 1.29- 2.85, $p < 0.001$). We also determined the per-capita rates of visitation to the 20-bar cluster and to the 68-restaurant comparison group by smartphones originating in each of 21 census tracts in the university area. In a multivariate instrumental variables regression, the visitation rate to the bar cluster was a significant determinant of the per-capita incidence of positive SARS-CoV-2 tests in each census tract (elasticity 0.88, 95% CI: 0.08–1.68, $p = 0.032$), while the restaurant visitation rate showed no such relationship. The potential super-spreader effects of clusters or networks of places, rather than individual sites, require further attention.
Referências	HARRIS, J. E. Geospatial analysis of a COVID-19 outbreak at the University of Wisconsin – Madison: potential role of a cluster of local bars. **Epidemiol. infect**., [United Kingdom.], p. 1–31, Apr. 5, 2022. DOI: 10.1017/S0950268822000498. Disponível em: https://www.cambridge.org/core/journals/epidemiology-and-infection/article/geospatial-analysis-of-a-covid19-outbreak-at-the-university-of-wisconsin-madison-potential-role-of-a-cluster-of-local-bars/5AC7785588D00A6201550CD40D0FFC0A. Acesso em: 8 abr. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/5AC7785588D00A6201550CD40D0FFC0A/S0950268822000498a.pdf/geospatial_analysis_of_a_covid19_outbreak_at_the_university_of_wisconsin_madison_potential_role_of_a_cluster_of_local_bars.pdf

Título	Symptom prevalence, duration, and risk of hospital admission in individuals infected with SARS-CoV-2 during periods of omicron and delta variant dominance: a prospective observational study from the ZOE COVID Study
Autor(es)	Cristina Menni, Ana M Valdes, Lorenzo Polidori, Michela Antonelli, Satya Penamakuri, Ana Nogal, Panayiotis Louca, Anna May, Jane C Figueiredo, Christina Hu, Erika Molteni, Liane Canas, Marc F Österdahl, Marc Modat, Carole H Sudre, Ben Fox, Alexander Hammers, Jonathan Wolf, Joan Capdevila, Andrew T Chan, Sean P David, Claire J Steves, Sebastien Ourselin, Tim D Spector
Resumo	The SARS-CoV-2 variant of concern, omicron, appears to be less severe than delta. We aim to quantify the differences in symptom prevalence, risk of hospital admission, and symptom duration among the vaccinated population.
Referências	MENNI, C. *et al.* Symptom prevalence, duration, and risk of hospital admission in individuals infected with SARS-CoV-2 during periods of omicron and delta variant dominance: a prospective observational study from the ZOE COVID Study. **Lancet**, [United Kingdom], p. S0140673622003270, Apr. 7, 2022. DOI: 10.1016/S0140-6736(22)00327-0. Disponível em: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)00327-0/fulltext. Acesso em: 8 abr. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S0140-6736%2822%2900327-0

Título	Association of COVID-19 vaccination during early pregnancy with risk of congenital fetal anomalies
Autor(es)	Rachel S. Ruderman, Jessica Mormol, Emma Trawick, Madeline F. Perry, Emma C. Allen, Danielle Millan, Emily S. Miller
Resumo	Pregnant individuals with SARS-CoV-2 infection experience increased maternal and neonatal morbidity.[1-3] Although effective COVID-19 vaccines became available in December 2020, pregnant people were excluded from initial trials. Whereas data suggest that COVID-19 vaccines are safe and effective during pregnancy, there is concern about whether the vaccines are associated with risks to the fetus.[4] We evaluated the association between COVID-19 vaccination during early pregnancy and risk of major fetal structural anomalies identified on ultrasonography.
Referências	RUDERMAN, R. S. *et al.* Association of COVID-19 vaccination during early pregnancy with risk of congenital fetal anomalies. **JAMA pediatrics**, [United States], Apr. 4, 2022. DOI: 10.1001/jamapediatrics.2022.0164 . Disponível em: https://doi.org/10.1001/jamapediatrics.2022.016. Acesso em: 8 abr. 2022.
Fonte	https://jamanetwork.com/journals/jamapediatrics/fullarticle/2790805

Título	The impact of pausing the Oxford-AstraZeneca COVID-19 vaccine on uptake in Europe: a difference-in-differences analysis
Autor(es)	Vageesh Jain, Paula Lorgelly
Resumo	Several countries paused their rollouts of the Oxford-AstraZeneca COVID-19 vaccine in mid-March 2021 due to concerns about vaccine-induced thrombosis and thrombocytopenia. Many warned that this risked damaging public confidence during a critical period of pandemic response. This study investigated whether the pause in the use of the Oxford-AstraZeneca vaccine had an impact on subsequent vaccine uptake in European countries.We used a difference-in-differences approach capitalizing on the fact that some countries halted their rollouts whilst others did not. A longitudinal panel was constructed for European Economic Area countries spanning 15 weeks in early 2021. Media reports were used to identify countries that paused the Oxford-AstraZeneca vaccine and the timing of this. Data on vaccine uptake were available through the European Centre for Disease Control and Prevention COVID-19 Vaccine Tracker. Difference-in-differences linear regression models controlled for key confounders that could influence vaccine uptake, and country and week fixed effects. Further models and robustness checks were performed.The panel included 28 countries, with 19 in the intervention group and 9 in the control group. Pausing the Oxford-AstraZeneca vaccine was associated with a 0.52% decrease in uptake for the first dose of a COVID-19 vaccine and a 1.49% decrease in the uptake for both doses, comparing countries that paused to those that did not. These estimates are not statistically significant (p = 0.86 and 0.39 respectively). For the Oxford-AstraZeneca vaccine only, the pause was associated with a 0.56% increase in uptake for the first dose and a 0.07% decrease in uptake for both doses. These estimates are also not statistically significant (p = 0.56 and 0.51 respectively). All our findings are robust to sensitivity analyses.As new COVID-19 vaccines emerge, regulators should be cautious to deviate from usual protocols if further investigation on clinical or epidemiological grounds is warranted.

Referências	JAIN, V.; LORGELLY, P. The impact of pausing the Oxford-AstraZeneca COVID-19 vaccine on uptake in Europe: a difference-in-differences analysis. **European journal of public health**, [United Kingdom], p. ckac039, Apr. 8, 2022. DOI: 10.1093/eurpub/ckac039. Disponível em: https://doi.org/10.1093/eurpub/ckac039, Acesso em: 8 abr. 2022.
Fonte	https://academic.oup.com/eurpub/advance-article/doi/10.1093/eurpub/ckac039/6565390?searchresult=1

Título	A Systematic Review of the Impact of the First Year of COVID-19 on Obesity Risk Factors: A Pandemic Fueling a Pandemic?
Autor(es)	Natasha Faye Daniels, Charlotte Burrin, Tianming Chan, Francesco Fusco
Resumo	Obesity is increasingly prevalent worldwide. Associated risk factors, including depression, socioeconomic stress, poor diet, and lack of physical activity, have all been impacted by the coronavirus disease 2019 (COVID-19) pandemic. This systematic review aims to explore the indirect effects of the first year of COVID-19 on obesity and its risk factors. A literature search of PubMed and EMBASE was performed from 1 January 2020 to 31 December 2020 to identify relevant studies pertaining to the first year of the COVID-19 pandemic (PROSPERO; CRD42020219433). All English-language studies on weight change and key obesity risk factors (psychosocial and socioeconomic health) during the COVID-19 pandemic were considered for inclusion. Of 805 full-text articles that were reviewed, 87 were included for analysis. The included studies observed increased food and alcohol consumption, increased sedentary time, worsening depressive symptoms, and increased financial stress. Overall, these results suggest that COVID-19 has exacerbated the current risk factors for obesity and is likely to worsen obesity rates in the near future. Future studies, and policy makers, will need to carefully consider their interdependency to develop effective interventions able to mitigate the obesity pandemic.
Referências	DANIELS, N. F. *et al.* A Systematic Review of the Impact of the First Year of COVID-19 on Obesity Risk Factors: A Pandemic Fueling a Pandemic?. **Current developments in nutrition**, [United States], v. 6, n. 4, p. nzac011, Apr. 8, 2022. DOI: 10.1093/cdn/nzac011. Disponível em: https://doi.org/10.1093/cdn/nzac011. Acesso em: 8 abr. 2022.
Fonte	https://academic.oup.com/cdn/article/6/4/nzac011/6564846?searchresult=1

Título	SARS-CoV-2 infection in the first trimester and the risk of early miscarriage: a UK population-based prospective cohort study of 3041 pregnancies conceived during the pandemic
Autor(es)	Neerujah Balachandren, Melanie C Davies, Jennifer A Hall, Judith M Stephenson, Anna L David, Geraldine Barrett, Helen C O'Neill, George B Ploubidis, Ephia Yasmin, Dimitrios Mavrelos
Resumo	Does maternal infection with severe acute respiratory syndrome coronavirus (SARS-CoV-2) in the first trimester affect the risk of miscarriage before 13 week's gestation?Pregnant women with self-reported diagnosis of SARS-CoV-2 in the first trimester had a higher risk of early miscarriage.Viral infections during pregnancy have a broad spectrum of placental and neonatal pathology. Data on the effects of the SARS-CoV-2 infection in pregnancy are still emerging. Two systematic reviews and meta-analyses reported an increased risk of preterm birth, caesarean delivery, maternal morbidity and stillbirth. Data on the impact of first trimester infection on early pregnancy outcomes are scarce. This is the first study, to our knowledge, to investigate the rates of early pregnancy loss during the SARS-CoV-2 outbreak among women with self-reported infection.This was a nationwide prospective cohort study of pregnant women in the community recruited using social media between 21st May and 31st December, 2020. We recruited 3545 women who conceived during the SARS-CoV-2 pandemic who were less than 13 week's gestation at the time of recruitment.The COVID-19 Contraception and Pregnancy Study (CAP-COVID) was an on-line survey study collecting longitudinal data from pregnant women in the UK aged 18 years or older. Women who were pregnant during the pandemic were asked to complete on-line surveys at the end of each trimester. We collected data on current and past pregnancy complications, their medical history and whether they or anyone in their household had symptoms or been diagnosed with SARS-CoV-2 infection during each trimester of their pregnancy. RT-PCR–based SARS-CoV-2 RNA detection from respiratory samples (e.g., nasopharynx) is the standard practice for diagnosis of SARS-CoV-2 in the UK. We compared rate of self-reported miscarriage in three groups: 'presumed infected' i.e those who reported a diagnosis with SARS-CoV-2 infection in the first trimester; 'uncertain' i.e those who did not report a diagnosis but had symptoms/household contacts with symptoms/diagnosis; and 'presumed uninfected' i.e., those who did not report any symptoms/diagnosis and had no household contacts with symptoms/diagnosis of SARS-CoV-2.A total of 3545 women registered for the CAP-COVID study at less than 13 weeks gestation and were eligible for this analysis. Data for the primary outcome were available from 3041 women (86%). In the overall sample, the rate of self-reported miscarriage was 7.8% (238/3041 [95% CI, 7-9]). The median gestational age at miscarriage was 9 weeks (interquartile range 8-11). Seventy-seven women were in the 'presumed infected' group (77/3041, 2.5% [95% CI 2 – 3]), 295/3041 were in the uncertain group (9.7%, [95% CI 9-11]) and the rest in the 'presumed uninfected' (87.8%, 2669/3041, [95% CI 87-89]). The rate of early miscarriage was 14% in the 'presumed infected' group, 5% in the 'uncertain' and 8% in the 'presumed uninfected' (11/77 [95% CI 6-22] versus15/295, [95% CI 3-8] versus 212/2669 [95% CI 7-9], p = 0.02). After adjusting for age, BMI, ethnicity, smoking status, gestational age at registration and the number of previous miscarriages, the risk of early miscarriage appears to be higher in the 'presumed infected' group (relative rate 1.7, 95% CI 1.0-3.0, p = 0.06).We relied on self-reported data on early pregnancy loss and SARS-CoV-2 infection without any means

Resumo	of checking validity. Some women in the 'presumed uninfected' and 'uncertain' groups may have had asymptomatic infections. The number of 'presumed infected' in our study was low and therefore the study was relatively underpowered.This was a national study from the UK, where infection rates were one of the highest in the world. Based on the evidence presented here, women who are infected with SARS-CoV-2 in their first trimester may be at an increased risk of a miscarriage. However, the overall rate of miscarriage in our study population was 8%. This is reassuring and suggests that if there is an effect of SARS-CoV-2 on the risk of miscarriage, this may be limited to those with symptoms substantial enough to lead to a diagnostic test. Further studies are warranted to evaluate a causal association between SARS-CoV-2 infection in early pregnancy and miscarriage risk. Although we did not see an overall increase in the risk of miscarriage, the observed comparative increase in the presumed infected group reinforces the message that pregnant women should continue to exercise social distancing measures and good hygiene throughout their pregnancy to limit their risk of infectionThis study was supported by a grant from the Elizabeth Garrett Anderson Hospital Charity, (G13-559194). The funders of the study had no role in study design, data collection, data analysis, data interpretation, or writing of the report. JAH is supported by an NIHR Advanced Fellowship. ALD is supported by the National Institute for Health Research University College London Hospitals Biomedical Research Centre. All authors have completed the ICMJE uniform disclosure form at www.icmje.org/coi_disclosure.pdf and declare: support to JAH and ALD as above; no financial relationships with any organisations that might have an interest in the submitted work in the previous 3 years; no other relationships or activities that could appear to have influenced the submitted work.n/a
Referências	BALACHANDREN, N. *et al.* SARS-CoV-2 infection in the first trimester and the risk of early miscarriage: a UK population-based prospective cohort study of 3041 pregnancies conceived during the pandemic. **Human reproduction**, [United Kingdom.], p. deac062, Apr. 7, 2022. DOI: 10.1093/humrep/deac062. Disponível em: https://doi.org/10.1093/humrep/deac062. Acesso em: 8 abr. 2022.
Fonte	https://academic.oup.com/humrep/advance-article/doi/10.1093/humrep/deac062/6564665?searchresult=1

Título	Review of air disinfection approaches and proposal for thermal inactivation of airborne viruses as a life-style and an instrument to fight pandemics
Autor(es)	Mikhail S Vlaskin
Resumo	COVID-19 (Coronavirus Disease 2019) pandemic highlighted the importance of air biosecurity because SARS-CoV-2 is mainly transmitted from person to person via airborne droplets. Preventing infectious droplets from entering the body is one of the best ways to protect against infection. This paper reviews the transmission patterns of airborne pathogens and air disinfection methods. A particular emphasis is put on studies devoted to the thermal inactivation of viruses. These reviews reveal that air heat treatment has not been seriously considered as a possible air disinfection approach. Simple calculations show that the energy input required for thermal disinfection of human's air daily consumption is almost the same as for daily water consumption (by heat treatment from room temperature to 100 °C). Moreover, it is possible to organize a continuous heat recovery from the air already heated during disinfection to the inlet air, thus significantly increasing the energy efficiency. Therefore, I propose a solution for the thermal inactivation of airborne pathogens based on air heating and its subsequent cooling in a heat exchanger with heat recovery. Such a solution could be used to create mobile personal and stationary indoor air disinfectors, as well as heating, ventilation, and air conditioning systems. Thermal disinfection of air to breathe might one day be part of people's daily life like thermal disinfection of drinking water. Aside from limiting infectious disease transmission, thermal inactivation might be the basis for developing inhaled vaccines using thermally inactivated whole pathogens.
Referências	VLASKIN, M. S. Review of air disinfection approaches and proposal for thermal inactivation of airborne viruses as a life-style and an instrument to fight pandemics. **Applied thermal engineering**, [Netherland], v. 202, p. 117855, Feb. 2022. DOI: 10.1016/j.applthermaleng.2021.117855. Disponível em: https://pubmed.ncbi.nlm.nih.gov/34867067/. Acesso em: 8 abr. 2022.
Fonte	https://pubmed.ncbi.nlm.nih.gov/34867067/

Título	Primary healthcare in the time of COVID-19: breaking the silos of healthcare provision
Autor(es)	Susan B Rifkin , Meredith Fort, Walaiporn Patcharanarumol, Viroj Tangcharoensathien
Resumo	In 1948, the WHO was created under the aegis of the United Nations (UN) as the agency to address global health concerns. Health was defined as a 'state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'.1 In 1978 with the Alma Ata Declaration, the member states of the UN began a process to translate this definition into reality by mandating primary healthcare (PHC) as the health policy for the organisation. PHC highlighted the principles of equity, community participation, and included multisectoral approaches.Over the first 40 plus years, PHC had various iterations but in most settings focused on primary care health services at the local level now linked to universal health coverage (UHC). This linear and siloed focus misses the original intent of the Alma Ata Declaration. With the COVID-19 pandemic, the focus has proved inadequate. Health services have not prevented the loss of 4 million lives3 and the loss of livelihoods of million more people.4 5 This situation also highlights the necessity of addressing health improvements in the context of the social determinants of health and governance.On the 40th anniversary of the Alma Ata Declaration in 2018, member countries of WHO signed the Astana Declaration.8 The declaration focuses on promoting PHC through (a) providing primary care services throughout the life course, (b) ensuring equity for healthcare, (c) addressing the social determinants of health, and (d) empowering citizens and communities.9 To pursue these objectives in the post-COVID-19 era, the way forward is to integrate public health systems and health services to include: clinical care, surveillance and rapid response to prevalent infectious and emerging diseases, a population health approach and a recognition of improved health as both a result of the social determinants of […]
Referências	RIFKIN, S. B. *et al.* Primary healthcare in the time of COVID-19: breaking the silos of healthcare provision. **BMJ global health**, [United Kingdom], v. 6, n. 11, p. e007721, Oct. 2021. DOI: 10.1136/bmjgh-2021-007721. Disponível em: https://gh.bmj.com/content/6/11/e007721. Acesso em: 8 abr. 2022.
Fonte	https://gh.bmj.com/content/bmjgh/6/11/e007721.full.pdf

Título	Effectiveness of two COVID-19 vaccines (viral vector and inactivated viral vaccine) against SARS-CoV-2 infection in a cohort of healthcare workers
Autor(es)	Alexandre R. Marra, João Luiz Miraglia, ; Daniel Tavares Malheiros, Yang Guozhang, Vanessa Damazio Teich, Elivane da Silva Victor, João Renato Rebello Pinho, Adriana Cypriano, Laura Wanderly Vieira, Miria Polonio, Rafael Herrera Ornelas, Solange Miranda de Oliveira, Flavio Araujo Borges Junior, Audrey Rie Ogawa Shibata, Guilherme de Paula Pinto Schettino, Ketti Gleyzer de Oliveira, Rúbia Anita Ferraz Santana, Fernanda de Mello Malta, Deyvid Amgarten, Ana Laura Boechat, Noelly Maria Zimpel Trecenti Takaaki Kobayashi, Jorge L. Salinas, Michael B. Edmond, Luiz Vicente Rizzo
Resumo	Objectives: We aimed to investigate real-world vaccine effectiveness (VE) for Oxford-AstraZeneca (ChAdOx1) and CoronaVac against laboratory-confirmed COVID-19 infection among healthcare workers (HCWs).Methods: We conducted a retrospective cohort study among HCWs (aged ≥18 years) working in a private healthcare system in Brazil between January 1, 2021 and August 3, 2021. To assess VE, we calculated VE=1RR (rate ratio), with RR determined by adjusting Poisson models with the occurrence of COVID-19 infection as the outcome, and the vaccination status as the main exploratory variable. We used the logarithmic link function and simple models adjusting for sex, age and job types. Results: 13,813 HCWs met the inclusion criteria for this analysis. 6,385 (46.2%) received the CoronaVac vaccine, 5,916 (42.8%) received the ChAdOx1 vaccine, and 1,512 (11.0%) were not vaccinated. Overall, COVID19 infection cases happened in 6% of unvaccinated HCWs, 3% of HCWs receiving two doses of CoronaVac vaccine, and 0.7% of HCWs receiving two doses of ChAdOx1 vaccine (p-value< 0.001). In the adjusted analyses, the estimated VE was 51.3% for CoronaVac, and 88.1% for ChAdOx1 vaccine. Both vaccines reduced the number of hospitalizations, the length of hospital stay, and the need of mechanical ventilation. Nineteen SARSCoV-2 samples from nineteen HCWs were screened for mutations of interest. Eighteen out of nineteen of those samples were Gamma SARS-CoV-2 variant. Conclusions: While both COVID-19 vaccines (viral vector and inactivated virus) can significantly prevent COVID-19 infection among HCWs, CoronaVac was much less effective. The COVID-19 vaccines were also effective even against a dominant Gamma variant.

Referências	MARRA, A. R. *et al.* Effectiveness of two COVID-19 vaccines (viral vector and inactivated viral vaccine) against SARS-CoV-2 infection in a cohort of healthcare workers. **Infection control & hospital epidemiology**, [United Kingdom], p. 1–20, Mar. 30, 2022. DOI: 10.1017/ice.2022.50. Disponível em: https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/effectiveness-of-two-covid19-vaccines-viral-vector-and-inactivated-viral-vaccine-against-sarscov2-infection-in-a-cohort-of-healthcare-workers/517B8C08DED6EEB0E96257AD90F939AA. Acesso em: 1 abr. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/517B8C08DED6EEB0E96257AD90F939AA/S0899823X22000502a.pdf/effectiveness_of_two_covid19_vaccines_viral_vector_and_inactivated_viral_vaccine_against_sarscov2_infection_in_a_cohort_of_healthcare_workers.pdf

Título	Identified risk factors for co-infection in hospitalized children infected with adenovirus in Hangzhou
Autor(es)	Qun Lao , Ning Han, Haipeng Pan, Ming Zhan, Yidong Wu, Shiyong Zhao, Yuzhu Jia
Resumo	This study aimed to describe the clinical manifestations of adenovirus infections and identify potential risk factors for co-infection with chlamydia, viruses, and bacteria in hospitalized children from Hangzhou, China. From January to December 2019, the characteristics of hospitalized children infected with adenovirus at Hangzhou Children's Hospital and Zhejiang Xiaoshan Hospital were collected. The clinical factors related to co-infection with chlamydia, viruses, and bacteria were assessed using multivariate logistic regression analyses. A total of 5,989 children were infected with adenovirus, of which 573 were hospitalized for adenovirus infection. The severity of adenovirus respiratory infection was categorized as follows: mild (bronchiolitis, 73.6%), moderate (bronchopneumonia, 17.6%), or severe (pneumonia, 8.8%). Of the 573 children who were hospitalized, 280 presented with co-infection of chlamydia, viruses, or bacteria, while the remaining 293 had only adenovirus infection. Multivariate stepwise logistic regression analyses indicated that elevated ferritin was associated with an increased risk of chlamydia co-infection (odds ratio [OR]: 6.50; 95% confidence interval [CI]: 1.56-27.11; P = 0.010). However, increased white blood cell count was associated with a reduced risk of viral co-infection (odds ratio [OR], 0.84; 95% CI: 0.75-0.95; P = 0.006). The study indicated that co-infection with chlamydia could be affected by elevated ferritin levels. White blood cell levels could affect viral co-infection in hospitalized children infected with adenovirus.
Referências	QUN, L. *et al.* Identified risk factors for co-infection in hospitalized children infected with adenovirus in Hangzhou. **Epidemiology & Infection**, [United Kingdom], p. 1–19, Mar. 30, 2022. DOI: 10.1017/S0950268822000565. Disponível em: https://www.cambridge.org/core/journals/epidemiology-and-infection/article/identified-risk-factors-for-coinfection-in-hospitalized-children-infected-with-adenovirus-in-hangzhou/4CEB2EE1F361BA84D6B632E49FB860A0. Acesso em: 1 abr. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/4CEB2EE1F361BA84D6B632E49FB860A0/S0950268822000565a.pdf/identified_risk_factors_for_coinfection_in_hospitalized_children_infected_with_adenovirus_in_hangzhou.pdf

Título	Pre-existing SARS-CoV-2 immunity influences potency, breadth, and durability of the humoral response to SARS-CoV-2 vaccination.
Autor(es)	Grace Mantus, Lindsay E. Nyhoff, Venkata-Viswanadh Edara, Veronika I. Zarnitsyna, Caroline R. Ciric, Maria W. Flowers, Carson Norwood, Madison Ellis, Laila Hussaini, Kelly E. Manning, Kathy Stephens, Evan J. Anderson, Rafi Ahmed , Mehul S. Suthar, Jens Wrammert
Resumo	The ongoing SARS-CoV-2 pandemic highlights the importance of determining the breadth and durability of humoral immunity to SARS-CoV-2 mRNA vaccination. Herein, we characterize the humoral response in 27 naïve and 40 recovered vaccinees. SARS-CoV-2-specific antibody and MBC responses are durable up to six months, although antibody half lives are shorter for naïve recipients. The magnitude of the humoral responses to vaccination strongly correlates with responses to initial SARS-CoV-2 infection. Neutralization titers are lower against SARS-CoV-2 variants in both recovered and naïve vaccinees, with titers more reduced in naïve recipients. While RBD is the main neutralizing target of circulating antibodies, Moderna-vaccinated naïves show a lesser reliance on RBD, with >25% neutralization remaining after depletion of RBD-binding antibodies. Overall, we observe that vaccination induces higher peak titers and improves durability in recovered as compared to naïve vaccinees. These findings have broad implications for current vaccine strategies deployed against the SARS-CoV-2 pandemic.
Referências	MANTUS, G. *et al.* Pre-existing SARS-CoV-2 immunity influences potency, breadth, and durability of the humoral response to SARS-CoV-2 vaccination. **Cell reports medicine**, [United States], p. 100603, Mar. 28, 2022. DOI: 10.1016/j.xcrm.2022.100603. Disponível em: https://www.cell.com/cell-reports-medicine/abstract/S2666-3791(22)00120-3. Acesso em: 1 abr. 2022.
Fonte	https://www.cell.com/cell-reports-medicine/fulltext/S2666-3791(22)00120-3#relatedArticles

Título	Boosting with variant-matched or historical mRNA vaccines protects against Omicron infection in mice
Autor(es)	Baoling Ying, Suzanne M. Scheaffer, Bradley Whitener, Chieh-Yu Liang, Oleksandr Dmytrenko, Samantha Mackin, Kai Wu, Diana Lee, Laura E. Avena, Zhenlu Chong, James Brett Case, LingZhi Ma, Thu Kim , Caralyn Sein , Angela Woods , Daniela Montes Berrueta, Andrea Carfi , Sayda M. Elbashir , Darin K. Edwards , Larissa B. Thackray, Michael S. Diamond
Resumo	The large number of spike substitutions in Omicron lineage variants (BA.1, BA.1.1. and BA.2) could jeopardize the efficacy of SARS-CoV-2 vaccines. We evaluated in mice the protective efficacy of the Moderna mRNA-1273 vaccine against BA.1 before or after boosting. Whereas two doses of mRNA-1273 vaccine induced high levels of neutralizing antibodies against historical WA1/2020 strains, lower levels against BA.1 were associated with breakthrough infection and inflammation in the lung. A primary vaccination series with mRNA-1273.529, an Omicron-matched vaccine, potently neutralized BA.1 but inhibited historical or other SARS-CoV-2 variants less effectively. However, boosting with either mRNA-1273 or mRNA-1273.529 vaccines increased neutralizing titers and protection against BA.1 and BA.2 infection. Nonetheless, the neutralizing antibody titers were higher, and lung viral burden and cytokines were slightly lower in mice boosted with mRNA-1273.529 and challenged with BA.1. Thus, boosting with mRNA-1273 or mRNA-1273.529 enhances protection against Omicron infection with limited differences in efficacy measured.
Referências	YING, B. *et al.* Boosting with variant-matched or historical mRNA vaccines protects against Omicron infection in mice. **Cell**, [United States], p. S0092867422003877, Mar. 27, 2022. DOI: 10.1016/j.cell.2022.03.037. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S0092867422003877. Acesso em: 1 abr. 2022.
Fonte	https://www.cell.com/mwg-internal/de5fs23hu73ds/progress?id=fYmi-fwyyLXVfGsJvV2O2akA5hSSkdjQvgieHI0kTQE,&dl

Título	Risk of SARS-CoV-2 reinfection and COVID-19 hospitalisation in individuals with natural and hybrid immunity: a retrospective, total population cohort study in Sweden
Autor(es)	Peter Nordström, Marcel Ballin, Anna Nordström
Resumo	Real-world evidence supporting vaccination against COVID-19 in individuals who have recovered from a previous SARS-CoV-2 infection is sparse. We aimed to investigate the long-term protection from a previous infection (natural immunity) and whether natural immunity plus vaccination (hybrid immunity) was associated with additional protection.
Referências	NORDSTRÖM, P.; BALLIN, M.; NORDSTRÖM, A. Risk of SARS-CoV-2 reinfection and COVID-19 hospitalisation in individuals with natural and hybrid immunity: a retrospective, total population cohort study in Sweden. **The Lancet. Infectious diseases**, [United Kingdom], Mar. 31, 2022. Disponível em: https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(22)00143-8/fulltext. Acesso em: 1 abr. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S1473-3099%2822%2900143-8

Título	Effectiveness of CoronaVac, ChAdOx1 nCoV-19, BNT162b2, and Ad26.COV2.S among individuals with previous SARS-CoV-2 infection in Brazil: a test-negative, case-control study
Autor(es)	Thiago Cerqueira-Silva, Jason R Andrews, Viviane S Boaventura, Otavio T Ranzani, Vinicius de Araújo Oliveira, Enny S Paixão, Juracy Bertoldo Júnior, Tales Mota Machado, Matt D T Hitchings, Murilo Dorion, Margaret L Lind, Gerson O Penna, Derek A T Cummings, Natalie E Dean, Guilherme Loureiro Werneck, Neil Pearce, Mauricio L Barreto, Albert I Ko, Julio Croda†, Manoel Barral-Netto
Resumo	COVID-19 vaccines have proven highly effective among individuals without a previous SARS-CoV-2 infection, but their effectiveness in preventing symptomatic infection and severe outcomes among individuals with previous infection is less clear. We aimed to estimate the effectiveness of four COVID-19 vaccines against symptomatic infection, hospitalisation, and death for individuals with laboratory-confirmed previous SARS-CoV-2 infection.
Referências	CERQUEIRA-SILVA, T. *et al.* Effectiveness of CoronaVac, ChAdOx1 nCoV-19, BNT162b2, and Ad26.COV2.S among individuals with previous SARS-CoV-2 infection in Brazil: a test-negative, case-control study. **The Lancet. Infectious diseases**, [United Kingdom], Mar. 31, 2022. Disponível em: https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(22)00140-2/fulltext. Acesso em: 1 abr. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S1473-3099%2822%2900140-2

Título	Efficacy, safety, and immunogenicity of the DNA SARS-CoV-2 vaccine (ZyCoV-D): the interim efficacy results of a phase 3, randomised, double-blind, placebo-controlled study in India
Autor(es)	Akash Khobragade, Suresh Bhate, Vijendra Ramaiah, Shrikant Deshpande, Krishna Giri, Himanshu Phophle, Pravin Supe, Inderjeet Godara, Ramesh Revanna, Rajnish Nagarkar, Jayesh Sanmukhani, Ayan Dey, T M Chozhavel Rajanathan, Kevinkumar Kansagra, Parshottam Koradia, on behalf of the ZyCoV-D phase 3 Study Investigator Group
Resumo	ZyCoV-D, a DNA-based vaccine, showed promising safety and immunogenicity in a phase 1/2 trial. We now report the interim efficacy results of phase 3 clinical trial with ZyCoV-D vaccine in India.
Referências	KHOBRAGADE, A. *et al.* Efficacy, safety, and immunogenicity of the DNA SARS-CoV-2 vaccine (ZyCoV-D): the interim efficacy results of a phase 3, randomised, double-blind, placebo-controlled study in India. **Lancet**, [United Kingdom], v. 399, n. 10332, p. 1313–1321, Abr. 2022. DOI: 10.1016/S0140-6736(22)00151-9. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S0140673622001519. Acesso em: 1 abr. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S0140-6736%2822%2900151-9

Título	Assessment of SARS-CoV-2 Mu Variant Emergence and Spread in Colombia
Autor(es)	Juan Hernandez-Ortiz, Andres Cardona, Karl Ciuoderis, Francisco Averhoff, Maria-Angelica Maya, Gavin Cloherty, Jorge E. Osorior
Resumo	Introduction... Since it emerged in Colombia in January 2021, the SARS-CoV-2 Mu variant has spread to 34 countries. The epidemiology of this variant has not yet been fully described. Here we report on the emergence and spread of the Mu variant in Antioquia State, Colombia.
Referências	HERNANDEZ-ORTIZ, J. *et al.* Assessment of SARS-CoV-2 Mu Variant Emergence and Spread in Colombia. **JAMA network open**, [United States], v. 5, n. 3, p. e224754, 2022. DOI: 10.1001/jamanetworkopen.2022.4754. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.4754. Acesso em: 1 abr. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2790509

Título	In-Hospital Mortality Disparities Among American Indian and Alaska Native, Black, and White Patients With COVID-19
Autor(es)	Leslie A. Musshafen, Lamees El-Sadek, Seth T. Lirette, Richard L. Summers, Caroline Compretta, Thomas E. Dobbs III
Resumo	American Indian and Alaska Native populations have some of the highest COVID-19 hospitalization and mortality rates in the US, with those in Mississippi being disparately affected. Higher COVID-19 mortality rates among Indigenous populations are often attributed to a higher comorbidity burden, although examinations of these associations are scarce, and none were believed to have included individuals hospitalized in Mississippi.To evaluate whether racial mortality differences among adults hospitalized with COVID-19 are associated with differential comorbidity experiences.The described cross-sectional study used retrospective hospital discharge data from the Mississippi Inpatient Outpatient Data System. All adult (aged ≥18 years) Mississippians of a known racial identity and who had been hospitalized with COVID-19 from March 1 to December 31, 2020, in any of the state's 103 nonfederal hospitals were included. Data were abstracted on June 17, 2021.Racial identity.In-hospital mortality as indicated by discharge status.A total of 18 731 adults hospitalized with a COVID-19 diagnosis and known racial identity were included (median age, 66 [IQR, 53-76] years; 10 109 [54.0%] female; 225 [1.2%] American Indian and Alaska Native; 9191 [49.1%] Black; and 9121 [48.7%] White). Pooling across comorbidity risk groups, odds of in-hospital mortality among Black patients were 75% lower than among American Indian and Alaska Native patients (odds ratio [OR], 0.25 [95% CI, 0.18-0.34]); odds of in-hospital death among White patients were 77% lower (OR, 0.23 [95% CI, 0.16-0.31]). Within comorbidity risk group analyses, Indigenous patients with the lowest risk (Elixhauser Comorbidity Index score ≤0) had an adjusted probability of in-hospital death of 0.10 compared with 0.03 for Black patients (OR, 0.29 [95% CI, 0.10-0.82]) and 0.04 for White patients (OR, 0.37 [95% CI, 0.13-1.07]). Probability of in-hospital death at the highest comorbidity risk levels (Elixhauser Comorbidity Index score ≥16) was 0.69 for American Indian and Alaska Native patients compared with 0.28 for Black patients (OR, 0.16 [95% CI, 0.08-0.32]) and 0.25 for White patients (OR, 0.14 [95% CI, 0.07-0.27]).This cross-sectional study of US adults hospitalized with COVID-19 found that American Indian and Alaska Native patients had lower comorbidity risk scores than those observed among Black or White patients. Despite empirical associations

Resumo	between reduced comorbidity risk scores and reduced odds of inpatient mortality, American Indian and Alaska Native patients were significantly more likely to die in the hospital of COVID-19 than Black or White patients at every level of comorbidity risk. Alternative factors that may contribute to high mortality rates among Indigenous populations must be investigated.
Referências	MUSSHAFEN, L. A. *et al.* In-Hospital Mortality Disparities Among American Indian and Alaska Native, Black, and White Patients With COVID-19. **JAMA network open**, [United States], v. 5, n. 3, p. e224822, Mar. 30, 2022. DOI: 10.1001/jamanetworkopen.2022.4822. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.4822. Acesso em: 1 abr. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2790506

Título	COVID-19 Infection among incarcerated individuals and prison staff in Lombardy, Italy, March 2020 to February 2021
Autor(es)	Sara Mazzilli, Lara Tavoschi, Alessandro Soria, Marco Fornili, Giorgia Cocca, Teresa Sebastiani, Giuditta Scardina, Cristina Cairone, Guglielmo Arzilli, Giuseppe Lapadula, Luca Ceccarelli, Nicola Cocco, Raffaella Bartolotti, Stefano De Vecchi, Giacomo Placidi, Leonardo Rezzonico, Laura Baglietto, Ruggero Giuliani, Roberto Ranieri
Resumo	Owing to infrastructural and population characteristics, the prison setting is at increased risk for transmission of SARS-CoV-2 and for severe clinical outcomes. Because of structural and operational reasons, research in prison settings is challenging and available studies are often monocentric and have limited temporal coverage; broader-based research is necessary.To assess the extent and dynamics of the COVID-19 pandemic within the prison system of a large Italian region, Lombardy, and report the infection prevention and control measures implemented.This repeated cross-sectional study was carried out from March 1, 2020, through February 28, 2021 (first wave, March-June 2020; second wave, October 2020-February 2021) in the prison system of Lombardy, which includes 18 detention facilities for adults. All incarcerated persons and the prison staff of the penitentiary system of the Lombardy region participated in the study.The main exposures of interest were the weekly average number of incarcerated individuals placed in quarantine in single or shared isolation rooms, the rate of sick leave by symptomatic and asymptomatic prison staff reported to the prison occupational medicine department on a weekly basis, and the level of overcrowding.The primary outcome measures were weekly COVID-19 crude case rates, weekly test positivity rate, and the relative risk of acquiring the infection for prison staff, incarcerated persons, and the general population.The study population comprised a mean of 7599 incarcerated individuals and 4591 prison staff. Approximately 5.1% of the prison population were women; demographic characteristics of the prison staff were not available. During the study, COVID-19 occurred in 1564 incarcerated individuals and 661 prison staff. Most of these cases were reported during the second wave (1474 in incarcerated individuals, 529 in prison staff), when stringent measures previously enforced were relaxed. During both epidemic waves, incarcerated individuals and prison staff had a higher relative risk for COVID-19 infection than the general population during both the first wave (incarcerated individuals: 1.30; 95% CI, 1.06-1.58; prison staff: 3.23; 95% CI, 2.74-3.84) and the second wave (incarcerated individuals: 3.91; 95% CI, 3.73-4.09; prison staff: 2.61; 95% CI, 2.41-2.82).The findings of this study suggest that the prison setting was an element of fragility during COVID-19 pandemic, with a high burden of COVID-19 cases among both the incarcerated individuals and prison staff. The prison

	setting and prison population need to be included and possibly prioritized in the response during epidemic events.
Referências	MAZZILLI, S. *et al.* COVID-19 Infection among incarcerated individuals and prison staff in Lombardy, Italy, March 2020 to February 2021. **JAMA network open**, [United States], v. 5, n. 3, p. e224862, Mar. 30, 2022. DOI: 10.1001/jamanetworkopen.2022.4862. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.4862. Acesso em: 1 abr. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2790504

Título	COVID-19 booster vaccination among individuals with schizophrenia in Israel
Autor(es)	Dana Tzur Bitan, Khalaf Kridin, Noga Givon-Lavi, Israel Krieger, Ehud Kaliner, Arnon Dov Cohen, Orly W einstein
Resumo	Individuals with schizophrenia are at higher risk for severe COVID-19 illness and mortality. Previous reports have demonstrated vaccination gaps among this high-risk population; however, it is unclear whether these gaps have continued to manifest with the booster dose.To assess gaps in first, second, and booster vaccinations among individuals with schizophrenia.This was a matched, controlled, retrospective cohort study conducted in November 2021, and included follow-up data from March 2020, to November 2021. The study used the databases of Clalit Health Services, the largest health care management organization in Israel. Individuals with a diagnosis of schizophrenia at the onset of the pandemic and matched controls were included in the analysis.Rates of first, second, and booster vaccinations and time to reach vaccination.The study included 34 797 individuals (mean [SD] age, 50.8 [16.4] years; 20 851 men [59.9%]) with schizophrenia and 34 797 matched controls (mean [SD] age, 50.7 [16.4] years; 20 851 men [59.9]) for a total of 69 594 individuals. A total of 6845 of 33 045 individuals (20.7%) with schizophrenia were completely unvaccinated, compared with 4986 of 34 366 (14.5%) in the control group (odds ratio [OR], 0.65; 95% CI, 0.62-0.67, P < .001). Once vaccinated, no significant differences were observed in the uptake of the second vaccine. Gaps emerged again with the booster vaccine, with 18 469 individuals (74.7%) with schizophrenia completing the booster, compared with 21 563 (77.9%) in the control group (OR, 0.83; 95% CI, 0.80-0.87, P < .001). Kaplan-Meier analyses indicated significant differences in time to reach vaccination, although gaps were lower compared with those reported in the first vaccination (log-rank test, 601.99 days; P < .001 for the first vaccination, compared with log-rank test, 81.48 days, P < .001 for the booster). Multivariate Cox regression analyses indicated that gaps in the first and booster vaccine were sustained even after controlling for demographic and clinical variables (first vaccine: hazard ratio [HR], 0.80; 95% CI, 0.78-0.81; P < .001 and booster: HR, 0.88; 95% CI, 0.87-0.90; P < .001) but were not significant for the second vaccine.Results of this cohort study of Israeli adults found lower rates of COVID-19 vaccination among individuals with schizophrenia compared with a control group without schizophrenia, especially during the vaccine initiation phase. Countries worldwide should adopt strategies to mitigate the persistence of vaccination gaps to improve health care for this vulnerable

	population.
Referências	TZUR BITAN, D. *et al.* COVID-19 Booster vaccination among individuals with schizophrenia in Israel. **JAMA psychiatry**, [United States], Mar. 30, 2022. DOI: 10.1001/jamapsychiatry.2022.0382. Disponível em: https://doi.org/10.1001/jamapsychiatry.2022.038. Acesso em: 1 abr. 2022.
Fonte	https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2790725

Título	Evaluation of Trends in Preexposure Prophylaxis Prescriptions During the First 6 Months of the COVID-19 Pandemic in New York State
Autor(es)	Thomas J. O'Grady, James M. Tesoriero, Yingchao Yuan, Thomas M. Grisham, Seung Jun Seo, Charles J. Gonzalez, Johanne E. Morne
Resumo	Introduction...New York State was disproportionally affected in the early stages of the COVID-19 pandemic, with approximately 462 000 cases and 32 500 deaths by September 30, 2020.[1] The state has long been an HIV epicenter, and 2019 Centers for Disease Control and Prevention surveillance data indicate that New York State has the highest number of persons living with diagnosed HIV per capita in the US.[2] There is limited evidence that the early pandemic had a negative association with preexposure prophylaxis (PrEP) access.[3,4] PrEP is a core pillar in New York State's effort to end AIDS as an epidemic, making it critical to assess PrEP trends throughout the COVID-19 pandemic. Time-series models were created to estimate the association of the first 6 months of the pandemic with PrEP prescription trends.
Referências	O'GRADY, T. J. *et al.* Evaluation of Trends in Preexposure Prophylaxis Prescriptions During the First 6 Months of the COVID-19 Pandemic in New York State. **JAMA network open**, [United States], v. 5, n. 3, p. e224065, Mar. 28, 2022. DOI: 10.1001/jamanetworkopen.2022.4065. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.4065. Acesso em: 1 abr. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2790427

Título	Outcomes after SARS-CoV-2 vaccination among children with a history of multisystem inflammatory syndrome
Autor(es)	Matthew Wisniewski, Angela Chun, Stefano Volpi, Eyal Muscal, S. Kristen Sexson Tejtel, Flor Munoz, Tiphanie P. Vogel,
Resumo	Introduction...Most children who contract SARS-CoV-2 are asymptomatic or mildly symptomatic.[1] However, a subset of children subsequently develop a severe hyperinflammatory condition called multisystem inflammatory syndrome in children (MIS-C) 4 to 6 weeks after having COVID-19.[2] The underlying mechanisms of MIS-C remain unclear,[3] leading to hesitation to vaccinate children with a history of MIS-C against SARS-CoV-2 because of concerns for a reoccurrence of hyperinflammation. In December 2020, the US Food and Drug Administration and the Italian Drug Agency (Agenzia Italiana del Farmaco) provided emergency use authorization for the COVID-19 vaccine, BNT162b2, in individuals 16 years or older. In May 2021, the vaccine became available to individuals 12 years or older. We aimed to evaluate outcomes following SARS-CoV-2 vaccination in patients previously diagnosed with MIS-C and hypothesized that vaccination would be well-tolerated.
Referências	WISNIEWSKI, M. *et al.* Outcomes After SARS-CoV-2 vaccination among children with a history of multisystem inflammatory Syndrome. **JAMA network open**, [United States], v. 5, n. 3, p. e224750, Mar. 28, 2022. DOI: 10.1001/jamanetworkopen.2022.4750. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.4750. Acesso em: 1 abr. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2790426

Título	Food and waterborne disease outbreaks after a super typhoon hit the southern philippines during the COVID-19 pandemic: a triple public health emergency
Autor(es)	Ian Christopher N. Rocha, Kimberly G. Ramos, Kevin T. Crispino
Resumo	During the coronavirus disease 2019 (COVID-19) pandemic, a super typhoon struck the southern Philippines, killing hundreds of people, displacing hundreds of thousands of families, and affecting millions of Filipinos. Apart from posing a threat to public health in the country, which is still dealing with the pandemic effects of being the most affected country in the Western Pacific Region, the natural disaster also brought with it another burden, as many provinces reported outbreaks of food and waterborne diseases as a result of contaminated drinking water, damaged water pipes, water supply outages, unsafe food preparation, and poor sanitation. These triple public health emergencies of super typhoon, food and waterborne infections, and COVID-19 can be extremely difficult to manage, especially since hundreds of health care facilities were also damaged by the recent natural disaster, and many health care workers are becoming ill as a result of the appearance of novel COVID-19 variants of concern in the country. Although these challenges can be devastating, Filipinos have a reputation for being resilient in the face of disasters and emergencies.
Referências	ROCHA, I. C. N.; RAMOS, K. G.; CRISPINO, K. T. Food and waterborne disease outbreaks after a super typhoon hit the southern philippines during the COVID-19 pandemic: a triple public health emergency. **Prehospital and disaster medicine**, [United States], p. 1–6, Mar. 24, 2022. DOI: 10.1017/S1049023X2200053X. Disponível em: https://www.cambridge.org/core/journals/prehospital-and-disaster-medicine/article/food-and-waterborne-disease-outbreaks-after-a-super-typhoon-hit-the-southern-philippines-during-the-covid19-pandemic-a-triple-public-health-emergency/5BC23B8A483AA6E2DD5796D92ED9918D. Acesso em: 25 mar. 2022.
Fonte	https://www.cambridge.org/core/journals/prehospital-and-disaster-medicine/article/food-and-waterborne-disease-outbreaks-after-a-super-typhoon-hit-the-southern-philippines-during-the-covid19-pandemic-a-triple-public-health-emergency/5BC23B8A483AA6E2DD5796D92ED9918D

Título	Prevalence of COVID-19 in West Gondar zone, Northwest Ethiopia: a population-based retrospective study
Autor(es)	Tiruneh Adane, Yonnas Adugna, Melak Aynlem
Resumo	Objective: Coronavirus disease-19 (COVID-19) has spread rapidly around the world, affecting every community directly or indirectly. Therefore, this study aims to investigate the prevalence of COVID-19 infection in the population of the West Gondar zone. Method: A retrospective cross-sectional study was conducted from November 2020 to January 2021, in the West Gondar zone, Northwest Ethiopia. Records of study participants with required information like of age, gender, travel history, type of specimen taken, and site of specimen taken were included. Statistical package for social sciences (SPSS) version 20 software was used for analysis. Descriptive statistics were summarized as percentages and means ±SD. The Chi-square test is used to compare categorical data. Results: A total of 1,166 participants were enrolled in this study. Of them, 16 individuals had positive results, giving a prevalence of 1.37% (95% CI: 0.66-2.08). Living in an urban area (P-value=0.035) and being female (P-value=0.045) was statistically associated with the positive rate for COVID-19. Conclusion: This study revealed a low prevalence of COVID-19 infection in the study area despite the increasing and rapid dissemination of the disease. State-wide population prevalence study should be done to estimate the general prevalence of COVID-19 in Ethiopia.
Referências	ADANE, T.; ADUGNA, Y.; AYNLEM, M. Prevalence of COVID-19 in West Gondar zone, Northwest Ethiopia: a population-based retrospective study. **Disaster medicine and public health preparedness**, [United States], p. 1–18, Mar. 23, 2022. DOI: 10.1017/dmp.2022.72. Disponível em: https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/prevalence-of-covid19-in-west-gondar-zone-northwest-ethiopia-a-populationbased-retrospective-study/F56078F2700BE9A441E40C6E97E94DF7. Acesso em: 25 mar. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/F56078F2700BE9A441E40C6E97E94DF7/S1935789322000726a.pdf/prevalence_of_covid19_in_west_gondar_zone_northwest_ethiopia_a_populationbased_retrospective_study.pdf

Título	Increased transmission of SARS-CoV-2 in Denmark during UEFA European championships
Autor(es)	Marc Bennedbæk, Mia Sarah Fischer Button, Lise Birk Nielsen, Jonas Bybjerg-Grauholm, Christina Wiid Svarrer, Karina Lauenborg Møller, Brian Kristensen, Rebecca Legarth, Vithiagaran Gunalan, Ditte Rechter Zenas, Irfatha Irshad , Sophie Gubbels, Raphael N. Sieber, Marc Stegger, Palle Valentiner-Branth, Morten Rasmussen, Camilla Holten Møller, Jannik Fonager , Frederik Trier Moller
Resumo	Denmark hosted four games during the 2020 UEFA European championships (EC2020). After declining positive SARS-CoV-2 test rates in Denmark, a rise occurred during and after the tournament, concomitant with the replacement of the dominant Alpha lineage (B.1.1.7) by the Delta lineage (B.1.617.2), increasing vaccination rates, and cessation of several restrictions. A cohort study including 33227 cases was conducted from 30 May to 25 July 2021, 14 days before and after the EC2020. Included was a nested cohort with event information from big-screen events and matches at the Danish national stadium, Parken, (DNSP) in Copenhagen, held from 12 June to 28 June 2021. Information from whole-genome sequencing, contact tracing, and Danish registries was collected. Case-case connections were used to establish transmission trees. Cases infected on match days were compared to cases not infected on match days as a reference. The crude incidence rate ratio (IRR) of transmissions was 1.55, corresponding to 584 (1.76%) cases attributable to EC2020 celebrations. The IRR adjusted for covariates was lower (IRR 1.41) but still significant, and also pointed to a reduced number of transmissions from fully vaccinated cases (IRR 0.59). These data support the hypothesis that the EC2020 celebrations contributed to the rise of cases in Denmark in the early summer of 2021.
Referências	BENNEDBÆK, M. *et al.* Increased transmission of SARS-CoV-2 in Denmark during UEFA European championships. **Epidemiol. infect**., [United Kingdom], p. 1–27, Mar. 23, 2022. DOI: 10.1017/S095026882200019X. Disponível em: https://www.cambridge.org/core/journals/epidemiology-and-infection/article/increased-transmission-of-sarscov2-in-denmark-during-uefa-european-championships/47D4FAB7BFFA3665CC0C9DD09ED08435. Acesso em: 25 mar. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/47D4FAB7BFFA3665CC0C9DD09ED08435/S095026882200019Xa.pdf/increased_transmission_of_sarscov2_in_denmark_during_uefa_european_championships.pdf

Título	Dynamics of specific antibodies in COVID-19 patients after recovery
Autor(es)	Zhi-Bo Deng , Feng Cheng, Yong Zhang
Resumo	The ongoing pandemic of coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has led to an unprecedented global public health crisis. The objectives of this study were to analyze the dynamic trend in specific antibodies in the serum of patients infected with SARS-CoV-2 within 12 months after recovery and to make a preliminary assessment of the protective effect of vaccination. Eighty-seven patients with confirmed COVID-19 who were admitted to our hospital from January to February 2020 were followed after recovery. Three-milliliter blood samples were collected for specific antibody detection at four time points: 1 month, 6 months and 12 months after recovery and 1 month after vaccination. The changes in specific IgG antibody and total antibody levels over 12 months were analyzed. Moreover, an independent comparison of the neutralizing antibody levels of patients after vaccination with those of healthy medical staff after vaccination was performed to compare the inhibition rates of the neutralizing antibody to the virus. No statistically significant difference in the sex distribution between groups was observed (P>0.05). Older patients had a greater risk of developing severe and critical COVID-19 (P0.05). Significant differences were observed in the inhibition rate of the neutralizing antibody against the virus in the disease group and the control group (P<0.05). IgG antibody produced by patients naturally infected with SARS-CoV-2 has a duration of no less than 1 year, and the change trend graph of total antibody levels was the same as that of IgG antibody levels. Under vaccine stimulation, the positive rate of IgG antibody was as high as 100%, and the total antibody concentration reached the highest level, which was independent of disease severity. Neutralizing antibodies following vaccination in patients who recovered from COVID19 had a higher inhibition rate against SARS-CoV-2 than those of vaccinated healthy controls, indicating that these COVID-19 patients had a

	lower risk of reinfection and were better protected.
Referências	ZHI-BO, Deng ; FENG, Cheng; YONG, Zhang. Dynamics of specific antibodies in COVID-19 patients after recovery. **Epidemiol. infect**., [United Kingdom], p. 1–27, Mar. 22,2022. DOI: 10.1017/S0950268822000528. Disponível em: https://www.cambridge.org/core/journals/epidemiology-and-infection/article/dynamics-of-specific-antibodies-in-covid19-patients-after-recovery/90ED78BE1D27C3F395A5BBBA26597355. Acesso em: 25 mar. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/90ED78BE1D27C3F395A5BBBA26597355/S0950268822000528a.pdf/dynamics_of_specific_antibodies_in_covid19_patients_after_recovery.pdf

Título	Healthcare-associated infections on the ICU in 21 Brazilian hospitals during the early months of the COVID-19 pandemic: an ecological study
Autor(es)	Ana Paula M. Porto, Igor C. Borges,Lewis Buss, Anna Machado, Bil R. Bassetti, Brunno Cocentino, Camila S. Bicalho, Claudia Carrilho, Cristhieni Rodrigues, Eudes A. S. Neto, Evelyne S. Girão, Filipe Piastrelli, Giovanna Sapienza, Glaucia Varkulja, Karin Kolbe, Luciana Passos, Patricia Esteves, Pollyana Gitirana, Regia D. F. Feijó, Rosane L. Coutinho, Thais Guimarães, Tiago L. L. Ferraz, Anna S. Levin, Silvia F. Costa
Resumo	Objetivo: A pandemia de COVID-19 causou uma crise global de saúde e pode ter afetado as estratégias de prevenção de infecções associadas à saúde (IRAS). Este estudo tem como objetivo avaliar o impacto da pandemia de COVID-19 na incidência de IRAS nas UTIs brasileiras. Métodos: Este estudo ecológico comparou pacientes adultos internados na UTI de abril a junho de 2020 (período pandêmico) com o mesmo período de 2019 (período pré-pandemia) em 21 hospitais brasileiros. A diferença na densidade de incidência de infecção da corrente sanguínea associada à linha central (CLABSI) e pneumonia associada à ventilação (PAV) microbiologicamente confirmada (casos por 1.000 pacientes-dia), a proporção de organismos que causaram IRAS e consumo de antibióticos (DDD) entre a pandemia e os períodos pré-pandemia foram comparados em uma análise de pares usando o teste de soma de classificação assinada de Wilcoxon. Resultados: We observed a significant increase in median CLABSI incidence during the pandemic (1.60 [0.44-4.20] vs. 2.81 [1.35-6.89], p = 0.002). There was no difference in VAP incidence between the two periods. In addition, there was a significant increase in the proportion of CLABSI caused by Enterococcus faecalis and Candida species during the pandemic, although only the latter retained statistical significance after correction for multiple comparisons. There was no significant change in ceftriaxone, piperacillin/tazobactam, meropenem, or vancomycin consumption between the studied periods. Conclusions: There was an increase in CLABSI incidence in Brazilian ICUs during the first months of COVID-19 pandemic. Additionally, we observed an increase in the proportion of CLABSI caused by E. faecalis and Candida species in this period. CLABSI prevention strategies must be reinforced in ICUs during the COVID-19 pandemic.

Referências	PORTO, A. P. M. *et al.* Healthcare-associated infections on the ICU in 21 Brazilian hospitals during the early months of the COVID-19 pandemic: an ecological study. **Infection control & hospital epidemiology**, [United Kingdom], p. 1–37, Mar. 18, 2022. DOI: 10.1017/ice.2022.65. Disponível em: https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/healthcareassociated-infections-on-the-icu-in-21-brazilian-hospitals-during-the-early-months-of-the-covid19-pandemic-an-ecological-study/ED086914DB70ACB8061C558058DEC70F. Acesso em: 25 mar. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/ED086914DB70ACB8061C558058DEC70F/S0899823X22000654a.pdf/healthcareassociated_infections_on_the_icu_in_21_brazilian_hospitals_during_the_early_months_of_the_covid19_pandemic_an_ecological_study.pdf

Título	COVID-19 cases in spectators returning to Finland from UEFA Euro 2020 matches in Saint Petersburg
Autor(es)	Sarvikivi, Salminen, Savolainen-Kopra, Ikonen, Kontio, Isosomppi, Jamanca, Hannila-Handelberg, Vapalahti, Smura, Lappalainen, Helve
Resumo	UEFA Euro 2020 tournament was scheduled to take place in 2020, but due to the COVID-19 pandemic was rescheduled to start on June 11,2021. Approximately 4 500 Finnish spectators participated, travelling between Finland and Russia during the period of June 16 to 30 to attend matches played on June 16 and 21. A total of 419 persons returning from Russia or with a connection to Russia were detected positive for SARS-CoV-2. Of the 321 sequenced samples 303 turned out to be of the Delta variant. None of these cases were hospitalized. In the following weeks findings of the Delta variant increased rapidly. Thus, EURO 2020 travel-related imported cases likely facilitated this rapid surge of Delta variant , but this impact would likely have been seen with the typical increase in the number of travelers entering Finland later in the summer.
Referências	SARVIKIVI, E. *et al.* COVID-19 cases in spectators returning to Finland from UEFA Euro 2020 matches in Saint Petersburg. **Epidemiol. infect.**, [United Kingdom], p. 1–13, Mar. 18, 2022. DOI: 10.1017/S0950268822000437. Disponível em: https://www.cambridge.org/core/services/aop-cambridge-core/content/view/CBDE504DD6030A686D01D336D3FE93D2/S0950268822000437a.pdf/covid19_cases_in_spectators_returning_to_finland_from_uefa_euro_2020_matches_in_saint_petersburg.pdf. Acesso em: 25 mar. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/CBDE504DD6030A686D01D336D3FE93D2/S0950268822000437a.pdf/covid19_cases_in_spectators_returning_to_finland_from_uefa_euro_2020_matches_in_saint_petersburg.pdf

Título	Factors associated with COVID-19 infection among thai health care personnel with high risk exposures: the important roles of double masking and physical distancing while eating
Autor(es)	Thanus Pienthong; Thana Khawcharoenporn1, Piyaporn Apisarnthanarak, David J Weber; Anucha Apisarnthanarak
Resumo	To Editor: Healthcare personal (HCP) are front-line workers in the COVID-19 pandemic and are at high risk of COVID-19 infection. Risk factors for hospital-acquired COVID-19 infections among HCP include prolonged periods of patient care, performing aerosol generating procedures, lack of adequate personal protective equipment (PPE) and inadequate compliance to infection prevention and control (IPC) policies. 1,2 HCP can also acquire COVID-19 infection from high-risk contact with other COVID-19-infected HCP (e.g., eating together) and via community/household exposures. Thus, the level of HCP awareness of and adherence to hospital IPC policy is crucial in preventing hospital-acquired COVID-19. To evaluate factors associated with COVID-19 infections among HCP with high-risk exposures, we compared the type of exposure, use of PPE and compliance with the hospital IPC policy among exposed HCP who did and did not acquire COVID-19. [...]
Referências	PIENTHONG, T. *et al.* Factors associated with COVID-19 infection among thai health care personnel with high risk exposures: the important roles of double masking and physical distancing while eating. **Infection control & hospital epidemiology**, [United Kingdom], p. 1–9, Mar. 18, 2022. DOI: 10.1017/ice.2022.58. Disponível em: https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/factors-associated-with-covid19-infection-among-thai-health-care-personnel-with-high-risk-exposures-the-important-roles-of-double-masking-and-physical-distancing-while-eating/A3D6939CDAC8FE62C4A7356BD103DF3E. Acesso em: 25 mar. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/A3D6939CDAC8FE62C4A7356BD103DF3E/S0899823X22000587a.pdf/factors_associated_with_covid19_infection_among_thai_health_care_personnel_with_high_risk_exposures_the_important_roles_of_double_masking_and_physical_distancing_while_eating.pdf

Título	Ear nose and throat symptoms of mask-earing in the COVID era
Autor(es)	Sabri Koseoglu, Kerimcan Cakıcı, Mahmut Demirtaş, Ozan Gokdogan, Harun Ucuncu
Resumo	Aims: Analysis of the otorhinolaryngological problems due to mask-wearing in the COVID-19 era. Material and Methods: A survey with 26 questions was sent by e-mail to 576 individuals. Results: The most frequently worn masks were three-layer surgical earloop masks (n=434, 80.7%), followed by N95 and FFP3 masks (n=58, 10.7%), cloth masks (n=50, 9.2%), and fullface respiratory masks (8, 1.5%). The most bothersome symptoms due to mask wearing were difficulty in nasal breathing (n=227, 41.8%), nasal itching and pain (n=99, 17.1%), earache (n=88, 16.2%), difficulty in expressing oneself (n=73, 13.4%), difficulty in understanding speech (n=56, 10.3%), and ear itching (n=5, 0.9%). Conclusion: The problems due to mask-wearing may cause avoidance of wearing them. Therefore, there is a need for new methods that will reduce the problems related to masks and hence increase their use in the community.
Referências	KOSEOGLU, S. *et al.* Ear nose and throat symptoms of mask-earing in the COVID era. **The journal of laryngology & otology**, [United Kingdom], p. 1–14, Mar. 17, 2022. DOI: 10.1017/S0022215122000676. Disponível em: https://www.cambridge.org/core/journals/journal-of-laryngology-and-otology/article/ear-nose-and-throat-symptoms-of-maskearing-in-the-covid-era/262E7BF559F6EE056317442A6A4A497F. Acesso em: 25 mar. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/262E7BF559F6EE056317442A6A4A497F/S0022215122000676a.pdf/ear_nose_and_throat_symptoms_of_maskearing_in_the_covid_era.pdf

Título	Neutralizing immunity in vaccine breakthrough infections from the SARS-CoV-2 Omicron and Delta variants
Autor(es)	Venice Servellita, Abdullah M. Syed, Mary Kate Morris, Noah Brazer, Prachi Saldhi, Miguel Garcia-Knight, Bharath Sreekumar, Mir M. Khalid, Alison Ciling, Pei-Yi Chen, G. Renuka Kumar, Amelia S. Gliwa, Jenny Nguyen, Alicia Sotomayor-Gonzalez, Yueyuan Zhang, Edwin Frias, John Prostko, John Hackett, Jr., Raul Andino, Debra A. Wadford, Carl Hanson, Jennifer Doudna, Melanie Ott, Charles Y. Chiu
Resumo	Virus-like particle (VLP) and live virus assays were used to investigate neutralizing immunity against Delta and Omicron SARS-CoV-2 variants in 259 samples from 128 vaccinated individuals. Following Delta breakthrough infection, titers against WT rose 57-fold and 3.1-fold compared to uninfected boosted and unboosted individuals, respectively, versus only a 5.8-fold increase and 3.1-fold decrease for Omicron breakthrough infection. Among immunocompetent, unboosted patients, Delta breakthrough infections induced 10.8-fold higher titers against WT compared to Omicron (p=0.037). Decreased antibody responses in Omicron breakthrough infections relative to Delta were potentially related to a higher proportion of asymptomatic or mild breakthrough infections (55.0% versus 28.6%, respectively), which exhibited 12.3-fold lower titers against WT compared to moderate-severe infections (p=0.020). Following either Delta or Omicron breakthrough infection, limited variant-specific cross-neutralizing immunity was observed. These results suggest that Omicron breakthrough infections are less immunogenic than Delta, thus providing reduced protection against reinfection or infection from future variants.
Referências	SERVELLITA, V. *et al.* Neutralizing immunity in vaccine breakthrough infections from the SARS-CoV-2 Omicron and Delta variants. **Cell**, [United States], Mar. 17, 2022. DOI: 10.1016/j.cell.2022.03.019. Disponível em: https://www.cell.com/cell/abstract/S0092-8674(22)00329-4. Acesso em: 25 mar. 2022.
Fonte	https://www.cell.com/action/showPdf?pii=S0092-8674%2822%2900329-4

Título	A cross-sectional survey of COVID-19: attitude and prevention practice among Syrians
Autor(es)	Batoul Bakkar, Fatema Mohsen, Humam Armashi, Marah Marrawi , Nizar Aldaher
Resumo	Introduction: Coronavirus disease of 2019 has overwhelmed public health systems worldwide and forced governments to impose draconian lockdowns on entire populations. With no vaccine or treatment during the early days of the pandemic, it is of paramount importance to assess the public's awareness about COVID-19 so that prevention-focused educational campaigns can be sufficiently deployed. This study aimed to gauge the Syrian public's adherence to infection control measures by assessing attitudes and practices during the pandemic which ravaged an already war-torn Syria. Methods: The web-based cross-sectional study was conducted in March 2020, nearly 11 years into the Syrian crisis. The survey contained 3 sections: socio-demographic characteristics, attitudes, and practice. Multivariable logistic regression analysis was performed to identify factors associated with good practices and negative attitudes. Data were analyzed using the Statistical Package for Social Sciences version 25.0. Results: Of the 3586 participants, 68.2% were females, 50.8% were unemployed, and 79.2% were collegeeducated. Only 1402 (39.1%) participants wore face masks when leaving their homes. Multiple logistic regression analysis revealed that female, age, and residence were factors associated with good practices such as avoiding mass gatherings, wearing face masks, and maintaining a 1-meter interpersonal distance. However, age and occupation were factors associated with negative attitudes towards the closure of universities and schools, travel bans, and quarantines for travellers. Conclusion: This survey highlights the need to address specific populations using various measures; there should be a specialized method of prevention for each occupation, age group, and place of residence to contain further outbreaks of COVID-19. This can be achieved through targeted awareness campaigns.
Referências	BAKKAR, B. *et al.* A cross-sectional survey of COVID-19: attitude and prevention practice among Syrians. **Heliyon**, [United Kingdom], v. 8, n. 3, Mar. 19, 2022. DOI: 10.1016/j.heliyon.2022.e09124. Disponível em: https://www.cell.com/heliyon/abstract/S2405-8440(22)00412-1. Acesso em: 25 mar. 2022.
Fonte	https://www.cell.com/action/showPdf?pii=S2405-8440%2822%2900412-1

Título	Vaccine protection against the SARS-CoV-2 Omicron variant in macaques
Autor(es)	Abishek Chandrashekar, Jingyou Yu, Katherine McMahan, Catherine Jacob-Dolan, Jinyan Liu, Xuan He, David Hope, Tochi Anioke, Julia Barrett, Benjamin Chung, Nicole P. Hachmann, Michelle Lifton, Jessica Miller, Olivia Powers, Michaela Sciacca, Daniel Sellers, Mazuba Siamatu, Nehalee Surve, Haley VanWyk, Huahua Wan, Cindy Wu, Laurent Pessaint, Daniel Valentin, Alex Van Ry, Jeanne Muench, Mona Boursiquot, Anthony Cook, Jason Velasco, Elyse Teow, Adrianus C.M. Boon, Mehul S. Suthar, Neharika Jain, Amanda J. Martinot, Mark G. Lewis, Hanne Andersen, Dan H. Barouch
Resumo	The rapid spread of the SARS-CoV-2 Omicron (B.1.1.529) variant, including in highly vaccinated populations, has raised important questions about the efficacy of current vaccines. In this study, we show that the mRNA-based BNT162b2 vaccine and the adenovirus vector-based Ad26.COV2.S vaccine provide robust protection against high-dose challenge with the SARSCoV-2 Omicron variant in cynomolgus macaques. We vaccinated 30 macaques with homologous and heterologous prime-boost regimens with BNT162b2 and Ad26.COV2.S. Following Omicron challenge, vaccinated macaques demonstrated rapid control of virus in bronchoalveolar lavage, and most vaccinated animals also controlled virus in nasal swabs. However, 4 vaccinated animals that had moderate Omicron neutralizing antibody titers and undetectable Omicron CD8+ T cell responses failed to control virus in the upper respiratory tract. Moreover, virologic control correlated with both antibody and T cell responses. These data suggest that both humoral and cellular immune responses contribute to vaccine protection against a highly mutated SARS-CoV-2 variant.
Referências	CHANDRASHEKAR, A. *et al.* Vaccine protection against the SARS-CoV-2 Omicron variant in macaques. **Cell**, [United States], Mar. 16, , 2022. DOI: 10.1016/j.cell.2022.03.024. Disponível em: https://www.cell.com/cell/abstract/S0092-8674(22)00334-8. Acesso em: 25 mar. 2022.
Fonte	https://www.cell.com/action/showPdf?pii=S0092-8674%2822%2900334-8

Título	Rapid and parallel adaptive mutations in spike S1 drive clade success in SARS-CoV-2
Autor(es)	Kathryn E. Kistler, John Huddleston, Trevor Bedford
Resumo	The SARS-CoV-2 pandemic has resulted in numerous virus variants, some of which have altered receptor-binding or antigenic phenotypes. Here, we quantify the degree to which adaptive evolution is driving the accumulation of mutations across the genome. We correlate clade growth with mutation accumulation, compare rates of nonsynonymous to synonymous divergence, assess temporal clustering of mutations and evaluate the evolutionary success of individual mutations. We find that spike S1 is the focus of adaptive evolution, but also identify positivelyselected mutations in other genes (notably Nsp6) that are sculpting the evolutionary trajectory of SARS-CoV-2. Adaptive changes in S1 accumulated rapidly, resulting in a remarkably high ratio of nonsynonymous to synonymous divergence that is 2.5X greater than that observed in influenza hemagglutinin HA1 at the beginning of the 2009 H1N1 pandemic. These findings uncover a high degree of adaptation in S1 and suggest that SARS-CoV-2 may undergo antigenic drift.
Referências	KISTLER, K. E.; HUDDLESTON, J.; BEDFORD, T. Rapid and parallel adaptive mutations in spike S1 drive clade success in SARS-CoV-2. **Cell host & microbe**, [United States], Mar. 21, , 2022. DOI: 10.1016/j.chom.2022.03.018. Disponível em: https://www.cell.com/cell-host-microbe/abstract/S1931-3128(22)00148-2. Acesso em: 25 mar. 2022.
Fonte	https://www.cell.com/action/showPdf?pii=S1931-3128%2822%2900148-2

Título	The intersecting pandemics of tuberculosis and COVID-19: population-level and patient-level impact, clinical presentation, and corrective interventions
Autor(es)	Keertan Dheda, Tahlia Perumal, Harry Moultrie, Rubeshan Perumal, Aliasgar Esmail, Alex J Scott, Zarir Udwadia, Kwok Chiu Chang, Jonathan Peter, Anil Pooran, Arne von Delft, Dalene von Delft, Neil Martinson, Marian Loveday, Salome Charalambous, Elizabeth Kachingwe, Waasila Jassat, Cheryl Cohen, Stefano Tempia, Kevin Fennelly, Madhukar Pai
Resumo	The global tuberculosis burden remains substantial, with more than 10 million people newly ill per year. Nevertheless, tuberculosis incidence has slowly declined over the past decade, and mortality has decreased by almost a third in tandem. This positive trend was abruptly reversed by the COVID-19 pandemic, which in many parts of the world has resulted in a substantial reduction in tuberculosis testing and case notifications, with an associated increase in mortality, taking global tuberculosis control back by roughly 10 years. Here, we consider points of intersection between the tuberculosis and COVID-19 pandemics, identifying wide-ranging approaches that could be taken to reverse the devastating effects of COVID-19 on tuberculosis control. We review the impact of COVID-19 at the population level on tuberculosis case detection, morbidity and mortality, and the patient-level impact, including susceptibility to disease, clinical presentation, diagnosis, management, and prognosis. We propose strategies to reverse or mitigate the deleterious effects of COVID-19 and restore tuberculosis services. Finally, we highlight research priorities and major challenges and controversies that need to be addressed to restore and advance the global response to tuberculosis.
Referências	DHEDA, K. *et al.* The intersecting pandemics of tuberculosis and COVID-19: population-level and patient-level impact, clinical presentation, and corrective interventions. **The Lancet. Respiratory medicine**, [Netherlands], Mar. 23, , 2022. DOI: 10.1016/S2213-2600(22)00092-3. Disponível em: https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(22)00092-3/fulltext. Acesso em: 25 mar. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2213-2600%2822%2900092-3

Título	Age-varying susceptibility to the delta variant (B.1.617.2) of SARS-CoV-2
Autor(es)	June Young Chun, Hwichang Jeong, Yongdai Kim
Resumo	The Delta variant (B.1.617.2) is estimated to be more transmissible than previous strains of SARS-CoV-2, especially among children and adolescents. However, to our knowledge, there are no reports confirming this to date.To gain a better understanding of the association of age with susceptibility to the Delta variant of SARS-CoV-2.This decision analytic model used an age-structured compartmental model using the terms symptom onset (S), exposure (E), infectious (I), and quarantine (Q) (SEIQ) to estimate the age-specific force of infection, combining age-specific contact matrices and observed distribution of periods between each stage of infection (E to I [ie, latent period], I given S, and S to Q [ie, diagnostic delay]) developed in a previous contact tracing study. A bayesian inference method was used to estimate the age-specific force of infection (S to E) and, accordingly, age-specific susceptibility. The age-specific susceptibility during the third wave (ie, before Delta, from October 15 to December 22, 2020, when the COVID-19 vaccination campaign was not yet launched) and the fourth wave (ie, the Delta-driven wave, from June 27 to August 21, 2021) in Korea were compared. As vaccine uptake increased, individuals who were vaccinated were excluded from the susceptible population in accordance with vaccine effectiveness against the Delta variant. This nationwide epidemiologic study included individuals who were diagnosed with COVID-19 during the study period in Korea. Data were analyzed from September to November 2021.Age group during the third wave (ie, before Delta) and fourth wave (ie, Delta-driven) of the COVID-19 pandemic in South Korea.Age-specific susceptibility during the third and fourth waves was estimated.Among 106 866 confirmed COVID-19 infections (including 26 597 infections and 80 269 infections during the third and fourth waves of COVID-19 in Korea, respectively), a significant difference in age-specific susceptibility to the Delta vs pre-Delta variant was found in the younger age group. After adjustment for contact pattern and vaccination status, the increase in susceptibility to the Delta vs pre-Delta variant was estimated

Resumo	to be highest in the group aged 10 to 15 years, approximately doubling (1.92-fold increase [95% CI, 1.86-fold to 1.98-fold]), whereas in the group aged 50 years or more, susceptibility to the Delta vs pre-Delta variant remained stable at an approximately 1-fold change (eg, among individuals aged 50-55 years: 0.997-fold [95% CI, 0.989-fold to 1.001-fold).In this study, the Delta variant of SARS-CoV-2 was estimated to propagate more easily among children and adolescents than pre-Delta strains, even after adjusting for contact pattern and vaccination status.
Referências	JUNE, Y. C. ; HWICHANG, J.; YONGDAI, K. Age-varying susceptibility to the delta variant (B.1.617.2) of SARS-CoV-2. **JAMA network open**, [United States], v. 5, n. 3, p. e223064, Mar. 18, 2022. DOI: 10.1001/jamanetworkopen.2022.3064. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.3064. Acesso em: 25 mar. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2790253

Título	Safety and efficacy of the common vaccines against COVID-19
Autor(es)	Ying Liu, Qing Ye
Resumo	The worldwide pandemic of coronavirus disease 2019 (COVID-19) has imposed a challenge on human health worldwide, and vaccination represents a vital strategy to control the pandemic. To date, multiple COVID-19 vaccines have been granted emergency use authorization, including inactivated vaccines, adenovirus-vectored vaccines, and nucleic acid vaccines. These vaccines have different technical principles, which will necessarily lead to differences in safety and efficacy. Therefore, we aim to implement a systematic review by synthesizing clinical experimental data combined with mass vaccination data and conducting a synthesis to evaluate the safety and efficacy of COVID-19 vaccines. Compared with other vaccines, adverse reactions after vaccination with inactivated vaccines are relatively low. The efficacy of inactivated vaccines is approximately 60%, adenovirus-vectored vaccines are 65%, and mRNA vaccines are 90%, which are always efficient against asymptomatic severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection, symptomatic COVID-19, COVID-19 hospitalization, severe or critical hospitalization, and death. RNA-based vaccines have a number of advantages and are one of the most promising vaccines identified to date and are particularly important during a pandemic. However, further improvements are required. In time, all the antibody levels weaken gradually, so a booster dose is needed to maintain immunity. Compared with homologous prime-boost immunization, heterologous prime-boost immunization prompts more robust humoral and cellular immune responses.
Referências	YING, L.; QING, Y. Safety and efficacy of the common vaccines against COVID-19. **Vaccines**, [Switzerland], v. 10, n. 4, p. 513, Mar. 23, 2022. DOI: 10.3390/vaccines10040513. Disponível em: https://www.mdpi.com/2076-393X/10/4/513. Acesso em: 25 mar. 2022.
Fonte	https://www.mdpi.com/2076-393X/10/4/513/htm

Título	Relative contagiousness of emerging virus variants: an analysis of the alpha, Delta, and Omicron SARS-CoV-2 variants
Autor(es)	Peter Reinhard Hansen
Resumo	We propose a simple dynamic model for estimating the relative contagiousness of two virus variants. Maximum likelihood estimation and inference is conveniently invariant to variation in the total number of cases over the sample period and can be expressed as a logistic regression. We apply the model to Danish SARS-CoV-2 variant data. We estimate the reproduction numbers of Alpha and Delta to be larger than that of the ancestral variant by a factor of 1.51 [CI 95%: 1.50, 1.53] and 3.28 [CI 95%: 3.01, 3.58], respectively. In a predominately vaccinated population, we estimate Omicron to be 3.15 [CI 95%: 2.83, 3.50] times more infectious than Delta. Forecasting the proportion of an emerging virus variant is straight forward and we proceed to show how the effective reproduction number for a new variant can be estimated without contemporary sequencing results. This is useful for assessing the state of the pandemic in real time as we illustrate empirically with the inferred effective reproduction number for the Alpha variant.
Referências	HANSEN, P. R. Relative Contagiousness of emerging virus variants: an analysis of the alpha, Delta, and Omicron SARS-CoV-2 variants. **Econometrics journal**, [United Kingdom], p. utac011, mar. 24, 2022. DOI: 10.1093/ectj/utac011. Disponível em: https://doi.org/10.1093/ectj/utac011. Acesso em: 25 mar. 2022.
Fonte	https://academic.oup.com/ectj/advance-article-abstract/doi/10.1093/ectj/utac011/6553812?redirectedFrom=fulltext

Título	Effects of confounding bias in COVID-19 and influenza vaccine effectiveness test-negative designs due to correlated influenza and COVID-19 vaccination behaviors
Autor(es)	Margaret K Doll, Stacy M Pettigrew, Julia Ma, Aman Verma
Resumo	The test-negative design is commonly used to estimate influenza and COVID-19 vaccine effectiveness (VE). In these studies, correlated COVID-19 and influenza vaccine behaviors may introduce a confounding bias where controls are included with the other vaccine-preventable acute respiratory illness (ARI). We quantified the impact of this bias on VE estimates in studies where this bias is not addressed.We simulated study populations under varying vaccination probabilities, COVID-19 VE, influenza VE, and proportions of controls included with the other vaccine-preventable ARI. Mean bias was calculated as the difference between estimated and true VE. Absolute mean bias in VE estimates was classified as low (<10%), moderate (10% to <20%), and high (≥20%).Where vaccination probabilities are positively correlated, COVID-19 and influenza VE test-negative studies with influenza and SARS-CoV-2 ARI controls, respectively, underestimate VE. For COVID-19 VE studies, mean bias was low for all scenarios where influenza represented ≤25% of controls. For influenza VE studies, mean bias was low for all scenarios where SARS-CoV-2 represented ≤10% of controls. Although bias was driven by the conditional probability of vaccination, low VE of the vaccine of interest and high VE of the confounding vaccine increase its magnitude.Where a low percentage of controls are included with the other vaccine-preventable ARI, bias in COVID-19 and influenza VE estimates is low. However, influenza VE estimates are likely more susceptible to bias. Researchers should consider potential bias and its implications in their respective study settings to make informed methodological decisions in test-negative VE studies.
Referências	DOLL, M. K. *et al.* Effects of confounding bias in COVID-19 and influenza vaccine effectiveness test-negative designs due to correlated influenza and COVID-19 vaccination behaviors. **Clinical infectious diseases**, [United States], p. ciac234, Mar. 24, 2022. DOI: 10.1093/cid/ciac234. Disponível em: https://doi.org/10.1093/cid/ciac234. Acesso em: 25 mar. 2022.
Fonte	https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciac234/6553950?searchresult=1

Título	Mortality Among People Experiencing Homelessness in San Francisco During the COVID-19 Pandemic
Autor(es)	Caroline Cawley, Hemal K. Kanzaria, Barry Zevin, Kelly M. Doran, Margot Kushel, Maria C. Raven
Resumo	There has been recent media attention on the risk of excess mortality among homeless individuals during the COVID-19 pandemic, yet data on these deaths are limited.To quantify and describe deaths among people experiencing homelessness in San Francisco during the COVID-19 pandemic and to compare the characteristics of these deaths with those in prior years.A cross-sectional study tracking mortality among people experiencing homelessness from 2016 to 2021 in San Francisco, California. All deceased individuals who were homeless in San Francisco at the time of death and whose deaths were processed by the San Francisco Office of the Chief Medical Examiner were included. Data analysis was performed from August to October 2021.Homelessness, based on homeless living status in an administrative database.Descriptive statistics were used to understand annual trends in demographic characteristics, cause and manner of death (based on autopsy), substances present in toxicology reports, geographic distribution of deaths, and use of health and social services prior to death. Total estimated numbers of people experiencing homelessness in San Francisco were assessed through semiannual point-in-time counts. The 2021 point-in-time count was postponed owing to the COVID-19 pandemic.In San Francisco, there were 331 deaths among people experiencing homelessness in the first year of the COVID-19 pandemic (from March 17, 2020, to March 16, 2021). This number was more than double any number in previous years (eg, 128 deaths in 2016, 128 deaths in 2017, 135 deaths in 2018, and 147 deaths in 2019). Most individuals who died were male (268 of 331 [81%]). Acute drug toxicity was the most common cause of death in each year, followed by traumatic injury. COVID-19 was not listed as the primary cause of any deaths. The proportion of deaths involving fentanyl increased each year (present in 52% of toxicology reports in 2019 and 68% during the pandemic). Fewer decedents had contacts with health services in the year prior to their death during the pandemic than in prior years (13% used substance use disorder services compared with 20% in 2019).In this

Resumo	cross-sectional study, the number of deaths among people experiencing homelessness in San Francisco increased markedly during the first year of the COVID-19 pandemic. These findings may guide future interventions to reduce mortality among individuals experiencing homelessness.
Referências	CAWLEY, C. *et al.* Mortality Among People Experiencing Homelessness in San Francisco During the COVID-19 Pandemic. **JAMA network open**, [United States], v. 5, n. 3, p. e221870, Mar. 10, 2022. DOI: 10.1001/jamanetworkopen.2022.1870. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.1870. Acesso em: 18 mar. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2789907

Título	Humoral responses against variants of concern by COVID-19 mRNA vaccines in immunocompromised patients
Autor(es)	Michel Obeid, Madeleine Suffiotti, Celine Pellaton, Hasna Bouchaab, Anne Cairoli, Vanja Salvadé, Caroline Stevenel, Rosemary Hottinger, Catherine Pythoud; Lucie Coutechier,; Laura Molinari, Didier Trono, Camillo Ribi, Raphael Gottardo, Craig Fenwick, Manuel Pascual, Michel A. Duchosal, Solange Peters, Giuseppe Pantaleo
Resumo	There are limited comparative data on the durability of neutralizing antibody (nAb) responses elicited by messenger RNA (mRNA) vaccines against the SARS-CoV-2 variants of concern (VOCs) in immunocompromised patients and healthy controls.To assess the humoral responses after vaccination with BNT162b2 (Pfizer-BioNTech) or mRNA-1273 (Moderna) vaccines.In this prospective, longitudinal monocentric comparative effectiveness study conducted at the Lausanne University Hospital, binding IgG anti-spike antibody and nAb levels were measured at 1 week, 1 month, 3 months, and 6 months after vaccination with mRNA-1273 (24.6% of participants) or BNT162b2 (75.3% of participants).All participants received 2 doses of either mRNA-1273 or BNT162b2 vaccines 4 to 6 weeks apart.The primary outcome of the study was the persistence of nAb responses against the original, nonvariant SARS-CoV-2 (2019-nCoV) and different VOCs at 6 months after vaccination. Key secondary outcomes were associations of the type of mRNA vaccine, the underlying disease, and the treatment with the response to vaccination.Among the 841 participants enrolled between January 14 and August 8, 2021, the patient population comprised 637 participants (mean [SD] age, 61.8 [13.7] years; 386 [60.6%] female), and the healthy control population comprised 204 participants (mean [SD] age, 45.9 [12.0] years; 144 [70.6%] female). There were 399 patients with solid cancers, 101 with hematologic cancers, 38 with solid organ transplants, 99 with autoimmune diseases, and 204 healthy controls. More than 15 000 nAb determinations were performed against the original, nonvariant 2019-nCoV and the Alpha, Beta, Gamma, and Delta variants. The proportions of nAbs and their titers decreased in all study groups at 6 months after vaccination, with the greatest decreases for the Beta and Delta variants. For Beta, the proportion decreased to a

Resumo	median (SE) of 39.2% (5.5%) in those with hematologic cancers, 44.8% (2.7%) in those with solid cancers, 23.1% (8.3%) in those with solid organ transplants, and 22.7% (4.8%) in those with autoimmune diseases compared with 52.1% (4.2%) in healthy controls. For Delta, the proportions decreased to 41.8% (5.6%) in participants with hematologic cancer, 51.9% (2.7%) in those with solid cancers, 26.9% (8.7%) in those with solid organ transplants, and 30.7% (5.3%) in those with autoimmune diseases compared with 56.9% (4.1%) healthy controls. Neutralizing antibody titers decreased 3.5- to 5-fold between month 1 and month 6, and the estimated duration of response was greater and more durable among those participants vaccinated with mRNA-1273. In participants with solid cancers, the estimated duration of nAbs against the Beta variant was 221 days with mRNA-1273 and 146 days with BNT162b2, and against the Delta variant, it was 226 days with mRNA-1273 and 161 with BNT162b2. The estimated duration of nAbs in participants with hematologic cancers was 113 and 127 days against Beta and Delta variants, respectively.This comparative effectiveness study suggests that approximately half of patients with hematologic cancers and solid cancers, about 70% of patients with solid organ transplants or autoimmune diseases, and 40% of healthy controls have lost nAbs against the circulating VOCs at 6 months after vaccination. These findings may be helpful for developing the best boosting vaccination schedule especially in immunocompromised patients.
Referências	OBEID, M. *et al.* Humoral responses against variants of concern by COVID-19 mRNA vaccines in immunocompromised patients. **JAMA oncology**, [United States], Mar. 10, 2022. DOI: 10.1001/jamaoncol.2022.0446. Disponível em: https://doi.org/10.1001/jamaoncol.2022.0446. Acesso em: 18 mar. 2022.
Fonte	https://jamanetwork.com/journals/jamaoncology/fullarticle/2790203

Título	Hospitalizations and mortality from non–SARS-CoV-2 causes among medicare beneficiaries at us hospitals during the SARS-CoV-2 pandemic
Autor(es)	Alexander Dang, Ravi Thakker, Shuang Li, Erin Hommel, Hemalkumar B. Mehta, James S. Goodwin
Resumo	The increased hospital mortality rates from non–SARS-CoV-2 causes during the SARS-CoV-2 pandemic are incompletely characterized.To describe changes in mortality rates after hospitalization for non–SARS-CoV-2 conditions during the COVID-19 pandemic and how mortality varies by characteristics of the admission and hospital.Retrospective cohort study from January 2019 through September 2021 using 100% of national Medicare claims, including 4626 US hospitals. Participants included 8 448 758 individuals with non–COVID-19 medical admissions with fee-for-service Medicare insurance.Outcome was mortality in the 30 days after admission with adjusted odds generated from a 3-level (admission, hospital, and county) logistic regression model that included diagnosis, demographic variables, comorbidities, hospital characteristics, and hospital prevalence of SARS-CoV-2.There were 8 448 758 non–SARS-CoV-2 medical admissions in 2019 and from April 2020 to September 2021 (mean [SD] age, 73.66 [12.88] years; 52.82% women; 821 569 [11.87%] Black, 438 453 [6.34%] Hispanic, 5 351 956 [77.35%] White, and 307 218 [4.44%] categorized as other). Mortality in the 30 days after admission increased from 9.43% in 2019 to 11.48% from April 1, 2020, to March 31, 2021 (odds ratio [OR], 1.20; 95% CI, 1.19-1.21) in multilevel logistic regression analyses including admission and hospital characteristics. The increase in mortality was maintained throughout the first 18 months of the pandemic and varied by race and ethnicity (OR, 1.27; 95% CI, 1.23-1.30 for Black enrollees; OR, 1.25; 95% CI, 1.23-1.27 for Hispanic enrollees; and OR, 1.18; 95% CI, 1.17-1.19 for White enrollees); Medicaid eligibility (OR, 1.25; 95% CI, 1.24-1.27 for Medicaid eligible vs OR, 1.18; 95% CI, 1.16-1.18 for noneligible); and hospital quality score, measured on a scale of 1 to 5 stars with 1 being the worst and 5 being the best (OR, 1.27; 95% CI, 1.22-1.31 for 1 star vs OR, 1.11; 95% CI, 1.08-1.15 for 5 stars). Greater hospital prevalence of SARS-CoV-2 was associated with greater increases in odds of death from the prepandemic period to the pandemic period; for example, comparing

Resumo	mortality in October through December 2020 with October through December 2019, the OR was 1.44 (95% CI, 1.39-1.49) for hospitals in the top quartile of SARS-CoV-2 admissions vs an OR of 1.19 (95% CI, 1.16-1.22) for admissions to hospitals in the lowest quartile. This association was mostly limited to admissions with high-severity diagnoses.The prolonged elevation in mortality rates after hospital admission in 2020 and 2021 for non–SARS-CoV-2 diagnoses contrasts with reports of improvement in hospital mortality during 2020 for SARS-CoV-2. The results of this cohort study suggest that, with the continued impact of SARS-CoV-2, it is important to implement interventions to improve access to high-quality hospital care for those with non–SARS-CoV-2 diseases.
Referências	DANG, A. *et al.* Hospitalizations and mortality from non–SARS-CoV-2 causes among medicare beneficiaries at US hospitals during the SARS-CoV-2 pandemic. **JAMA network open**, [United States], v. 5, n. 3, p. e221754, Mar. 9, 2022. DOI: 10.1001/jamanetworkopen.2022.1754. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.1754. Acesso em: 18 mar. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2789840

Título	Comparison of seroconversion in children and adults with mild COVID-19
Autor(es)	Zheng Quan Toh, Jeremy Anderson, Nadia Mazarakis, Melanie Neeland, Rachel A. Higgins, Karin Rautenbacher, Kate Dohle, Jill Nguyen, Isabella Overmars, Celeste Donato, Sohinee Sarkar, Vanessa Clifford, Andrew Daley, Suellen Nicholson, Francesca L. Mordant, Kanta Subbarao, David P. Burgner, Nigel Curtis, Julie E. Bines, Sarah McNab, Andrew C. Steer, Kim Mulholland, Shidan Tosif, Nigel W. Crawford, Daniel G. Pellicci, Lien Anh Ha Do, Paul V. Licciardi
Resumo	The immune response in children with SARS-CoV-2 infection is not well understood.To compare seroconversion in nonhospitalized children and adults with mild SARS-CoV-2 infection and identify factors that are associated with seroconversion.This household cohort study of SARS-CoV-2 infection collected weekly nasopharyngeal and throat swabs and blood samples during the acute (median, 7 days for children and 12 days for adults [IQR, 4-13] days) and convalescent (median, 41 [IQR, 31-49] days) periods after polymerase chain reaction (PCR) diagnosis for analysis. Participants were recruited at The Royal Children's Hospital, Melbourne, Australia, from May 10 to October 28, 2020. Participants included patients who had a SARS-CoV-2–positive nasopharyngeal or oropharyngeal swab specimen using PCR analysis.SARS-CoV-2 immunoglobulin G (IgG) and cellular (T cell and B cell) responses in children and adults. Seroconversion was defined by seropositivity in all 3 (an in-house enzyme-linked immunosorbent assay [ELISA] and 2 commercial assays: a SARS-CoV-2 S1/S2 IgG assay and a SARS-CoV-2 antibody ELISA) serological assays.Among 108 participants with SARS-CoV-2–positive PCR findings, 57 were children (35 boys [61.4%]; median age, 4 [IQR, 2-10] years) and 51 were adults (28 women [54.9%]; median age, 37 [IQR, 34-45] years). Using the 3 established serological assays, a lower proportion of children had seroconversion to IgG compared with adults (20 of 54 [37.0%] vs 32 of 42 [76.2%]; P < .001). This result was not associated with viral load, which was similar in children and adults (mean [SD] cycle threshold [Ct] value, 28.58 [6.83] vs 24.14 [8.47]; P = .09). In addition, age and sex were not associated with seroconversion within children (median age, 4 [IQR, 2-14] years for both seropositive and seronegative groups; seroconversion by sex, 10 of 21 girls [47.6%] vs 10 of 33 boys [30.3%]) or adults (median ages, 37 years for seropositive and 40 years for seronegative adults [IQR, 34-39 years]; seroconversion by sex, 18 of 24

Resumo	women [75.0%] vs 14 of 18 men [77.8%]) (P > .05 for all comparisons between seronegative and seropositive groups). Symptomatic adults had 3-fold higher SARS-CoV-2 IgG levels than asymptomatic adults (median, 227.5 [IQR, 133.7-521.6] vs 75.3 [IQR, 36.9-113.6] IU/mL), whereas no differences were observed in children regardless of symptoms. Moreover, differences in cellular immune responses were observed in adults compared with children with seroconversion.The findings of this cohort study suggest that among patients with mild COVID-19, children may be less likely to have seroconversion than adults despite similar viral loads. This finding has implications for future protection after SARS-CoV-2 infection in children and for interpretation of serosurveys that involve children. Further research to understand why seroconversion and development of symptoms are potentially less likely in children after SARS-CoV-2 infection and to compare vaccine responses may be of clinical and scientific importance.
Referências	TOH, Z. Q. *et al.* Comparison of seroconversion in children and adults with mild COVID-19. **JAMA network open**, [United States], v. 5, n. 3, p. e221313, Mar. 9, 2022. DOI: 10.1001/jamanetworkopen.2022.1313. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.1313. Acesso em: 18 mar. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2789845

Título	Multisystem inflammatory syndrome-related refractory cardiogenic shock in adults after COVID-19 infection: a case series
Autor(es)	D Tonon, C Landrieux, S Van Den Plas, JR Harlé, H Lepidi, J Bourenne, N Jaussaud, D Lagier
Resumo	A novel multisystem inflammatory syndrome in children (MIS-C) temporally associated with the coronavirus disease 2019 (COVID-19) infection has been reported, arising weeks after the peak incidence of COVID-19 infection in adults. Patients with MIS-C have been reported to have cardiac involvement and clinical features overlapping with other acute inflammatory syndromes such as Kawasaki-Disease, toxic shock syndrome, and macrophage activation syndrome. MIS-C may follow Covid-19 infection, most of the time after its asymptomatic form, even though it can lead to serious and life-threatening illness.In this case series, we discuss two cases of young adults with no former medical history who fit with the criteria defined in MIS-C. They both developed a refractory cardiogenic shock and required intensive care treatment including mechanical circulatory support, specifically the use of venous-arterial extracorporeal membrane oxygenation (VA-ECMO). They were both treated early with intravenous immune globulin and adjunctive high-dose steroids. They recovered ad integrum in less than two weeks.MIS-C occurs 2 to 4 weeks after infection with SARS-CoV-2. Patients with MIS-C should ideally be managed in an intensive care environment since rapid clinical deterioration may occur. It would be preferable to have a multi-disciplinary care to improve outcomes. Patients should be monitored for shock. Elucidating the mechanism of this new entity may have importance for understanding COVID-19 far beyond the patients who have had MIS-C to date. The pathogenesis seems to involve post-infectious immune dysregulation so early administration intravenous immune globulin associated to corticosteroids appears appropriate. It implies early recognition of the syndrome even in young adults.

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Referências	TONON, D. *et al.* Multisystem inflammatory syndrome-related refractory cardiogenic shock in adults after COVID-19 infection: a case series. **European heart journal. Case reports**, [United Kingdom], p. ytac112, Mar. 18, 2022. DOI: 10.1093/ehjcr/ytac112. Disponível em: https://doi.org/10.1093/ehjcr/ytac112. Acesso em: 18 mar. 2022.
Fonte	https://academic.oup.com/ehjcr/advance-article/doi/10.1093/ehjcr/ytac112/6550488?searchresult=1

Título	Tracking SARS-CoV-2 mutations & variants through the COG-UK-mutation explorer
Autor(es)	Derek W Wright, William T Harvey, Joseph Hughes, MacGregor Cox, Thomas P Peacock, Rachel Colquhoun, Ben Jackson, Richard Orton, Morten Nielsen, Nienyun Sharon Hsu, The COVID-19 Genomics UK (COG-UK) consortium Ewan M Harrison, Thushan I de Silva, Andrew Rambaut, Sharon J Peacock, David L Robertson, Alessandro M Carabelli
Resumo	COG-UK Mutation Explorer (COG-UK-ME, https://sars2.cvr.gla.ac.uk/cog-uk/ - Last Accessed date 16/03/22) is a web resource that displays knowledge and analyses on SARS-CoV-2 virus genome mutations and variants circulating in the UK, with a focus on the observed amino acid replacements that have an antigenic role in the context of the human humoral and cellular immune response. This analysis is based on more than 2 million genome sequences (as of March 2022) for UK SARS-CoV-2 data held in the CLIMB-COVID centralised data environment. COG-UK-ME curates these data and displays analyses that are cross-referenced to experimental data collated from the primary literature. The aim is to track mutations of immunological importance that are accumulating in current variants of concern and variants of interest that could alter the neutralising activity of monoclonal antibodies (mAbs), convalescent sera and vaccines. Changes in epitopes recognised by T cells, including those where reduced T cell binding has been demonstrated, are reported. Mutations that have been shown to confer SARS-CoV-2 resistance to antiviral drugs are also included. Using visualisation tools, COG-UK-ME also allows users to identify the emergence of variants carrying mutations that could decrease the neutralising activity of both mAbs present in therapeutic cocktails, e.g., Ronapreve. COG-UK-ME tracks changes in frequency of combination of mutations and brings together curated literature on the impact of those mutations on various functional aspects of the virus and therapeutics. Given SARS-CoV-2 unpredictable nature as exemplified by yet another variant of concern, Omicron, continued surveillance of SARS-CoV-2 remains imperative to monitor virus evolution linked to the efficacy of therapeutics.

Referências	WRIGHT, D. W. *et al.* Tracking SARS-CoV-2 mutations & variants through the COG-UK-mutation explorer. **Virus evolution**, [United Kingdom], p. veac023, Mar. 18, 2022. DOI: 10.1093/ve/veac023. Disponível em: https://doi.org/10.1093/ve/veac023. Acesso em: 18 mar. 2022.
Fonte	https://academic.oup.com/ve/advance-article/doi/10.1093/ve/veac023/6550415?searchresult=1

Título	Persistent antibody responses up to 18 months after mild SARS-CoV-2 infection
Autor(es)	Pyoeng Gyun Choe, Jisu Hong, Jiyoung Park, Euijin Chang, Chang Kyung Kang, Nam Joong Kim, Chang-Han Lee, Wan Beom Park, Myoung-don Oh
Resumo	Humoral immunity to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) may wane rapidly in persons recovered from mild coronavirus disease 2019 (COVID-19), but little is known about the longevity.Serum samples were obtained 8, 12, and 18 months after infection from 20 patients with mild COVID-19. The binding activities of serum antibodies (IgA, IgG, and IgM) against SARS-CoV-2 antigens of the Wuhan-1 reference strain (wild-type) and the B.1.1.7, P.1, B.1.167.2, and B.1.1.529 variants were measured by enzyme-linked immunosorbent assays. Neutralizing antibody titers were measured using a cytopathic effect-based live virus neutralization assay.Serum IgA and IgG antibodies against spike or receptor-binding domain (RBD) protein of wild-type SARS-CoV-2 were detected for up to 18 months, and neutralizing antibodies persisted for 8 to 18 months after infection. However, any significant antibody responses against RBD proteins of SARS-CoV-2 variants were not observed, and median neutralizing antibody titers against the Delta variant at 8, 12, and 18 months were 8–11 fold lower than against wild-type viruses (P < .001).Humoral immunity persisted for up to 18 months after SARS-CoV-2 infection in patients with mild COVID-19. Humoral immune activity against more recently circulating variants, however, was reduced in this population.
Referências	PYOENG, Gyun Choe *et al.* Persistent antibody responses up to 18 months after mild SARS-CoV-2 infection. **The journal of infectious diseases**, [United Kingdom], p. jiac099, mar. 17, 2022. DOI: 10.1093/infdis/jiac099. Disponível em: https://doi.org/10.1093/infdis/jiac099. Acesso em: 18 mar. 2022.
Fonte	https://academic.oup.com/jid/advance-article/doi/10.1093/infdis/jiac099/6550287?searchresult=1

Título	Flipped inflammatory time and the role of antibodies against SARS-CoV-2: optimising tocilizumab against COVID-19
Autor(es)	P Guisado-Vasco, J Aguareles, M M Carralón González, G Sotres Fernandez, D Carnevali Ruiz
Resumo	Use of IL-6 inhibitors has become one of the most complicated clinical issues in treating COVID-19. Recently, randomized open-label platform trials have found that IL-6 inhibitors have a beneficial effect on mortality in severe COVID-19. However, several questions arise around their mechanism of action in this disease, as well as how, when, and at which dose they should be used. IL-6 has both pro-inflammatory and anti-inflammatory effects, which may modulate the course of COVID-19, whose immunopathogenesis is driven by the innate immune system, autoantibodies, and interferon. Given that patients with delayed seroconversion against the SARS-CoV-2 spike protein would be at the highest risk of complications beyond the second week of disease, we propose that considering patient serostatus at admission could optimise the use of IL-6 inhibitors in COVID-19. We predict that the net treatment benefits could be higher in the subgroup of patients with delayed seroconversion as compared to those who seroconvert more rapidly after SARS-CoV-2 infection.
Referências	GUISADO-VASCO, P. *et al.* Flipped inflammatory time and the role of antibodies against SARS-CoV-2: optimising tocilizumab against COVID-19. **The journal of infectious diseases**, [United Kingdom], p. jiac090, 2022. DOI: 10.1093/infdis/jiac090. Disponível em: https://doi.org/10.1093/infdis/jiac090. Acesso em: 18 mar. 2022.
Fonte	https://academic.oup.com/jid/advance-article/doi/10.1093/infdis/jiac090/6549720?searchresult=1

Título	COVID-19: autoimmunity, multisystemic inflammation and autoimmune rheumatic patients
Autor(es)	Zoltán Szekanecz1 , Attila Balog , Tamás Constantin , László Czirják , Pál Géher , László Kovács , Gábor Kumánovics , György Nagy , Éva Rákóczi , Szilvia Szamosi , Gabriella Szűcs , István Vályi-Nagy
Resumo	COVID-19 is associated with autoimmunity and systemic inflammation. Patients with autoimmune rheumatic and musculoskeletal disease (RMD) may be at high risk for SARS-CoV2 infection. In this review, based on evidence from the literature, as well as international scientific recommendations, we review the relationships between COVID-19, autoimmunity and patients with autoimmune RMDs, as well as the basics of multisystemic inflammatory syndrome associated with COVID-19. We discuss the repurposing of pharmaceutics used to treat RMDs, the principles for the treatment of patients with autoimmune RMDs during the pandemic and main aspects of vaccination against SARS-CoV-2 in autoimmune RMD patients.
Referências	SZEKANECZ, Z. *et al.* COVID-19: autoimmunity, multisystemic inflammation and autoimmune rheumatic patients. **Expert reviews in molecular medicine**, [United Kingdom], p. 1–21, Mar. 15, 2022. DOI: 10.1017/erm.2022.10. Disponível em: https://www.cambridge.org/core/journals/expert-reviews-in-molecular-medicine/article/covid19-autoimmunity-multisystemic-inflammation-and-autoimmune-rheumatic-patients/7F50815BD5DC9F095AED1F90C0546C71. Acesso em: 17 mar. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/7F50815BD5DC9F095AED1F90C0546C71/S1462399422000102a.pdf/covid19_autoimmunity_multisystemic_inflammation_and_autoimmune_rheumatic_patients.pdf

Título	Transmission of COVID-19 among healthcare workers - an epidemiological study during the first phase of the pandemic in Sweden
Autor(es)	Sekai Chenai Mathabire Rücker, Catharina Gustavsson, Fredrik Rücker, Anders Lindblom, Maria Hårdstedt
Resumo	During the first phase of the COVID-19 pandemic in 2020, concerns were raised that healthcare workers (HCWs) were at high risk of infection. The aim of this study was to explore transmission of COVID-19 among HCWs during a staff outbreak at an inpatient ward in Sweden 1 March to 31 May 2020. A mixed methods approach was applied using several data sources. In total, 152 of 176 HCWs participated. The incidence of COVID-19 among HCWs was 33%. Among cases, 48 (96%) performed activities involving direct contact with COVID-19 patients. Contact tracing connected 78% of cases to interaction with another contagious co-worker. Only a few HCWs cases reported contact with a confirmed COVID-19 case at home (n=6; 12%) or in the community (n=3; 6%). Multiple logistic regression identified direct care of COVID-19 patients and positive COVID-19 family contact as risk factors for infection (adjusted OR 8.4 and 9.0 respectively). Main interventions to stop the outbreak were physical distancing between HCWs, reinforcement of personal hygiene routines and rigorous surface cleaning. The personal protective equipment used in contact with patients was not changed in response to the outbreak. We highlight HCW-to-HCW transmission of COVID-19 in a hospital environment and the importance of preventing droplet and contact transmission between co-workers.
Referências	MATHABIRE RÜCKER, S. C. *et al.* Transmission of COVID-19 among healthcare workers - an epidemiological study during the first phase of the pandemic in Sweden. Epidemiol. infect, [United Kingdom], p. 1–36, Mar. 11, 2022. DOI: 10.1017/S0950268822000231. Disponível em: https://www.cambridge.org/core/journals/epidemiology-and-infection/article/transmission-of-covid19-among-healthcare-workers-an-epidemiological-study-during-the-first-phase-of-the-pandemic-in-sweden/987F0DA93AE9D652860A4DA0373B7624. Acesso em: 17 mar. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/987F0DA93AE9D652860A4DA0373B7624/S0950268822000231a.pdf/transmission_of_covid19_among_healthcare_workers_an_epidemiological_study_during_the_first_phase_of_the_pandemic_in_sweden.pdf

Título	Comparative analysis of the risks of hospitalisation and death associated with SARS-CoV-2 omicron (B.1.1.529) and delta (B.1.617.2) variants in England: a cohort study
Autor(es)	Tommy Nyberg, Neil M Ferguson, Sophie G Nash, Harriet H Webster, Seth Flaxman, Nick Andrews, Wes Hinsley, Jamie Lopez Bernal, Meaghan Kall, Samir Bhatt, Paula Blomquist, Asad Zaidi, Erik Volz, Nurin Abdul Aziz, Katie Harman, Sebastian Funk, Sam Abbott, COVID-19 Genomics UK (COG-UK) consortium, Russell Hope, Andre Charlett, Meera Chand, Azra C Ghani, Shaun R Seaman, Gavin Dabrera, Daniela De Angelis, Anne M Presanis, Simon Thelwall
Resumo	The omicron variant (B.1.1.529) of SARS-CoV-2 has demonstrated partial vaccine escape and high transmissibility, with early studies indicating lower severity of infection than that of the delta variant (B.1.617.2). We aimed to better characterise omicron severity relative to delta by assessing the relative risk of hospital attendance, hospital admission, or death in a large national cohort.
Referências	NYBERG, T. *et al.* Comparative analysis of the risks of hospitalisation and death associated with SARS-CoV-2 omicron (B.1.1.529) and delta (B.1.617.2) variants in England: a cohort study. **Lancet**, [United Kingdom], p. S0140673622004627, Mar. 16, 2022. DOI: 10.1016/S0140-6736(22)00462-7. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S0140673622004627. Acesso em: 17 mar. 2022.
Fonte	https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)00462-7/fulltext

Título	Awake prone positioning for non-intubated patients with COVID-19-related acute hypoxaemic respiratory failure: a systematic review and meta-analysis
Autor(es)	Jie Li, Jian Luo, Ivan Pavlov, Yonatan Perez, Wei Tan, Oriol Roca, Elsa Tavernier, Aileen Kharat,Bairbre McNicholas, Miguel Ibarra-Estrada, David L Vines, Nicholas A Bosch, Garrett Rampon, Steven Q Simpson, Allan J Walkey, Michael Fralick, Amol Verma, Fahad Razak, Tim Harris, John G Laffey, Claude Guerin, Stephan Ehrmann, for the Awake Prone Positioning Meta-Analysis Group
Resumo	Awake prone positioning has been broadly utilised for non-intubated patients with COVID-19-related acute hypoxaemic respiratory failure, but the results from published randomised controlled trials (RCTs) in the past year are contradictory. We aimed to systematically synthesise the outcomes associated with awake prone positioning, and evaluate these outcomes in relevant subpopulations.
Referências	JIE, Li. *et al.* Awake prone positioning for non-intubated patients with COVID-19-related acute hypoxaemic respiratory failure: a systematic review and meta-analysis. **The Lancet. Respiratory medicine**, [Netherlands], p. S2213260022000431, Mar. 16, 2022. DOI: 10.1016/S2213-2600(22)00043-1. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S2213260022000431. Acesso em: 17 mar. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2213-2600%2822%2900043-1

Título	Effectiveness of rAd26-rAd5, ChAdOx1 nCoV-19, and BBIBP-CorV vaccines for risk of infection with SARS-CoV-2 and death due to COVID-19 in people older than 60 years in Argentina: a test-negative, case-control, and retrospective longitudinal study
Autor(es)	Analía Rearte, Juan Manuel Castelli, Ramiro Rearte, Nora Fuentes, Velen Pennini, Martina Pesce, Pilar Barcena Barbeira, Luciana Eva Iummato, Melisa Laurora, María Lucía Bartolomeu, Guido Galligani, María Del Valle Juarez, Carlos María Giovacchini, Adrián Santoro, Mariano Esperatti, Sonia Tarragona, Carla Vizzotti
Resumo	In January, 2021, a vaccination campaign against COVID-19 was initiated with the rAd26-rAd5, ChAdOx1 nCoV-19, and BBIBP-CorV vaccines in Argentina. The objective of this study was to estimate vaccine effectiveness at reducing risk of SARS-CoV-2 infection and COVID-19 deaths in people older than 60 years.
Referências	REARTE, A. *et al.* Effectiveness of rAd26-rAd5, ChAdOx1 nCoV-19, and BBIBP-CorV vaccines for risk of infection with SARS-CoV-2 and death due to COVID-19 in people older than 60 years in Argentina: a test-negative, case-control, and retrospective longitudinal study. **Lancet**, [Netherlands], p. S0140673622000113, Mar. 15, 2022. DOI: 10.1016/S0140-6736(22)00011-3. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S0140673622000113. Acesso em: 17 mar. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S0140-6736%2822%2900011-3

Título	SARS-CoV-2 incidence, transmission, and reinfection in a rural and an urban setting: results of the PHIRST-C cohort study, South Africa, 2020–21
Autor(es)	Cheryl Cohen, Jackie Kleynhans, Anne von Gottberg, Meredith L McMorrow, Nicole Wolter, Jinal N Bhiman, Jocelyn Moyes, Mignon du Plessis, Maimuna Carrim, Amelia Buys, Neil A Martinson, Kathleen Kahn, Stephen Tollman, Limakatso Lebina, Floidy Wafawanaka, Jacques D du Toit, Francesc Xavier Gómez-Olivé, Fatimah S Dawood, Thulisa Mkhencele, Kaiyuan Sun, Cécile Viboud, Stefano Tempia, for the PHIRST-C Group
Resumo	By August, 2021, South Africa had been affected by three waves of SARS-CoV-2; the second associated with the beta variant and the third with the delta variant. Data on SARS-CoV-2 burden, transmission, and asymptomatic infections from Africa are scarce. We aimed to evaluate SARS-CoV-2 burden and transmission in one rural and one urban community in South Africa.
Referências	COHEN, C. *et al.* SARS-CoV-2 incidence, transmission, and reinfection in a rural and an urban setting: results of the PHIRST-C cohort study, South Africa, 2020–21. **Lancet. Infectious diseases**, [United Kingdom], p. S147330992200069X, Mar. 14, 2022. DOI: 10.1016/S1473-3099(22)00069-X. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S147330992200069X. Acesso em: 17 mar. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S1473-3099%2822%2900069-X

Título	Estimating excess mortality due to the COVID-19 pandemic: a systematic analysis of COVID-19-related mortality, 2020–21
Autor(es)	COVID-19 Excess Mortality Collaborators
Resumo	Mortality statistics are fundamental to public health decision making. Mortality varies by time and location, and its measurement is affected by well known biases that have been exacerbated during the COVID-19 pandemic. This paper aims to estimate excess mortality from the COVID-19 pandemic in 191 countries and territories, and 252 subnational units for selected countries, from Jan 1, 2020, to Dec 31, 2021.
Referências	WANG, H. *et al.* Estimating excess mortality due to the COVID-19 pandemic: a systematic analysis of COVID-19-related mortality, 2020–21. **Lancet**, [Netherlands], p. S0140673621027963, Mar. 10, 2022. DOI: 10.1016/S0140-6736(21)02796-3. Disponível em: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02796-3/fulltext. Acesso em: 17 mar. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S0140-6736%2821%2902796-3

Título	Uptake of COVID-19 Vaccination Among Frontline Workers in California State Prisons
Autor(es)	Lea Prince, Elizabeth Long, David M. Studdert, LLB, David Leidner, Elizabeth T. Chin, Jason R. Andrews, Joshua A. Salomon, Jeremy D. Goldhaber-Fiebert
Resumo	Prisons and jails are high-risk environments for COVID-19. Vaccination levels among workers in many such settings remain markedly lower than those of residents and members of surrounding communities. The situation is troubling because prison staff are a key vector for COVID-19 transmission.To assess patterns and timing of staff vaccination in California state prisons and identify individual-level and community-level factors associated with remaining unvaccinated.This cohort study used data from December 22, 2020, through June 30, 2021, to quantify the fractions of staff and incarcerated residents who remained unvaccinated among 23 472 custody and 7617 health care staff who worked in roles requiring direct contact with residents at 33 of the 35 prisons operated by the California Department of Corrections and Rehabilitation. Multivariable probit regressions assessed demographic, community, and peer factors associated with staff vaccination uptake.Remaining unvaccinated throughout the study period.Of 23 472 custody staff, 3751 (16%) were women, and 1454 (6%) were Asian/Pacific Islander individuals, 1571 (7%) Black individuals, 9008 (38%) Hispanic individuals, and 6666 (28%) White individuals. Of 7617 health care staff, 5434 (71%) were women, and 2148 (28%) were Asian/Pacific Islander individuals, 1201 (16%) Black individuals, 1409 (18%) Hispanic individuals, and 1771 (23%) White individuals. A total of 6103 custody staff (26%) and 3961 health care staff (52%) received 1 or more doses of a COVID-19 vaccine during the first 2 months vaccines were offered, but vaccination rates stagnated thereafter. By June 30, 2021, 14 317 custody staff (61%) and 2819 health care staff (37%) remained unvaccinated. In adjusted analyses, remaining unvaccinated was positively associated with younger age (custody staff: age, 18-29 years vs ≥60 years, 75% [95% CI, 73%-76%] vs 45% [95% CI, 42%-48%];

Resumo	health care staff: 52% [95% CI, 48%-56%] vs 29% [95% CI, 27%-32%]), prior COVID-19 infection (custody staff: 67% [95% CI, 66%-68%] vs 59% [95% CI, 59%-60%]; health care staff: 44% [95% CI, 42%-47%] vs 36% [95% CI, 36%-36%]), residing in a community with relatively low rates of vaccination (custody staff: 75th vs 25th percentile:, 63% [95% CI, 62%-63%] vs 60% [95% CI, 59%-60%]; health care staff: 40% [95% CI, 39%-41%] vs 34% [95% CI, 33%-35%]), and sharing shifts with coworkers who had relatively low rates of vaccination (custody staff: 75th vs 25th percentile, 64% [95% CI, 62%-66%] vs 59% [95% CI, 57%-61%]; health care staff: 38% [95% CI, 36%-41%] vs 35% [95% CI, 31%-39%]).This cohort study of California state prison custody and health care staff found that vaccination uptake plateaued at levels that posed ongoing risks of further outbreaks in the prisons and continuing transmission from prisons to surrounding communities. Prison staff decisions to forgo vaccination appear to be multifactorial, and vaccine mandates may be necessary to achieve adequate levels of immunity in this high-risk setting.
Referências	PRINCE, L. *et al.* Uptake of COVID-19 Vaccination Among Frontline Workers in California State Prisons. **JAMA health forum**, [United States], v. 3, n. 3, p. e220099, Mar. 11, 2022. DOI: 10.1001/jamahealthforum.2022.0099. Disponível em: https://doi.org/10.1001/jamahealthforum.2022.0099. Acesso em: 17 mar. 2022.
Fonte	https://jamanetwork.com/journals/jama-health-forum/fullarticle/2789952

Título	Infection control and the prevalence, management and outcomes of SARS-CoV-2 infections in mental health wards in London, UK: lessons learned from wave 1 to wave 2
Autor(es)	Kathy Y. Liu, Anita Kulatilake, Chris Kalafatis, Gareth Smith, Jacob D. King, Jordi Serra-Mestres, Lauren Huzzey, Nicola Ng, Pooja Kandangwa, Thomas Elliott, Andrew Sommerlad, Louise Marston, Gill Livingston
Resumo	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) disease (COVID-19) has high morbidity and mortality in older adults and people with dementia. Infection control and prevention measures potentially reduce transmission within hospitals. Aims: We aimed to replicate our earlier study of London mental health in-patients to examine changes in clinical guidance and practice and associated COVID-19 prevalence and outcomes between COVID-19 waves 1 and 2 (1 March to 30 April 2020 and 14 December 2020 to 15 February 2021). Method: We collected the 2 month period prevalence of wave 2 of COVID-19 in older (≥65 years) in-patients and those with dementia, as well as patients' characteristics, management and outcomes, including vaccinations. We compared these results with those of our wave 1 study. Results: Sites reported that routine testing and personal protective equipment were available, and routine patient isolation on admission occurred throughout wave 2. COVID-19 infection occurred in 91/358 (25%; 95% CI 21–30%) v. 131/344, (38%; 95% CI 33–43%) P < 0.001 in wave 1. Hospitals identified more asymptomatic carriers (26/91; 29% v. 16/130; 12%) and fewer deaths (12/91; 13% v. 19/131; 15%; odds ratio = 0.92; 0.37–1.81) compared with wave 1. The patient vaccination uptake rate was 49/58 (85%). Conclusions: Patients in psychiatric in-patient settings, mostly admitted without known SARS-CoV-2 infection, had a high risk of infection compared with people in the community but lower than that during wave 1. Availability of infection control measures in line with a policy of parity of esteem between mental and physical health appears to have lowered within-hospital COVID-19 infections and deaths. Cautious management of vulnerable patient groups including mental health patients may reduce the future impact of COVID-19.

Referências	LIU, K. Y. *et al.* Infection control and the prevalence, management and outcomes of SARS-CoV-2 infections in mental health wards in London, UK: lessons learned from wave 1 to wave 2. **BJPsych Open**, [United Kingdom], v. 8, n. 2,Mar. 8, 2022. Disponível em: https://www.cambridge.org/core/journals/bjpsych-open/article/infection-control-and-the-prevalence-management-and-outcomes-of-sarscov2-infections-in-mental-health-wards-in-london-uk-lessons-learned-from-wave-1-to-wave-2/0CF605C0D96393D1D4A4B747A369354F. Acesso em: 10 mar. 2022.
Fonte	https://www.cambridge.org/core/journals/bjpsych-open/article/infection-control-and-the-prevalence-management-and-outcomes-of-sarscov2-infections-in-mental-health-wards-in-london-uk-lessons-learned-from-wave-1-to-wave-2/0CF605C0D96393D1D4A4B747A369354F

Título	Impact of rigorous clinical and laboratory screening for COVID-19 in a teaching hospital in Inner Brazil
Autor(es)	Stephanie Valentini Ferreira Proença, Carlos Magno Castelo Branco Fortaleza, Carlos Magno Castelo Branco Fortaleza, Jonas Atique Sawazaki, Ricardo de Souza Cavalcante, Ricardo de Souza Cavalcante, Bruno Cardoso de Macedo, Sandra Mara Queiroz, Sebastião Pires Ferreira Filho, Gabriel Berg de Almeida
Resumo	Introdução... The greater spread of SARS-CoV-2 variants of concern (VOCs) determines the occurrence of community outbreaks and quickly poses a potential risk for nosocomial outbreaks.1,2 Given the estimated basic reproduction number of the virus, the transmission through respiratory droplets, the possibility of transmission of asymptomatic and oligosymptomatic individuals, and the high occupancy rate of ...
Referências	PROENÇA, S. V. F. *et al.* Impact of rigorous clinical and laboratory screening for COVID-19 in a teaching hospital in inner Brazil. **Infection control & hospital epidemiology**, [United Kingdom], p. 1–5, Mar. 7, 2022. DOI: 10.1017/ice.2022.59. Disponível em: https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/impact-of-rigorous-clinical-and-laboratory-screening-for-covid19-in-a-teaching-hospital-in-inner-brazil/AD18AE07067942AE7F0DA1CDA1A648B3. Acesso em: 10 mar. 2022.
Fonte	https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/impact-of-rigorous-clinical-and-laboratory-screening-for-covid19-in-a-teaching-hospital-in-inner-brazil/AD18AE07067942AE7F0DA1CDA1A648B3

Título	Prospective spatial–temporal clusters of COVID-19 in local communities: case study of Kansas city, Missouri, United States
Autor(es)	Hadeel AlQadi, Majid Bani Yaghoub, Siqi Wu, Sindhu Balakumar, Alex Francisco
Resumo	Kansas City, Missouri, became one of the major United States hotspots for COVID-19 due to an increase in the rate of positive COVID-19 test results. Despite the large numbers of positive cases in Kansas City, MO, the spatial-temporal analysis of data has been less investigated. However, it is critical to detect emerging clusters of COVID-19 and enforce control and preventive policies within those clusters. We conducted a prospective Poisson spatial-temporal analysis of Kansas City, MO data to detect significant space-time clusters of COVID-19 positive cases at the zip code level in Kansas City, MO. The analysis focused on daily infected cases in four equal periods of three months. We detected temporal patterns of emerging and reemerging space-time clusters between March 2020 and February 2021. Three statistically significant clusters emerged in the first period, mainly concentrated in downtown. It increased to seven clusters in the second period, spreading across a broader region in downtown and north of Kansas City. In the third period, nine clusters covered large areas of north and downtown Kansas City, MO. Ten clusters were present in the last period, further extending the infection along the state line. The statistical results were communicated with local health officials and provided the necessary guidance for decision-making and allocating resources (e.g., vaccines and testing sites). As more data become available, statistical clustering can be used as a COVID-19 surveillance tool to measure the effects of vaccination.
Referências	ALQADI, H. *et al.* Prospective Spatial–Temporal Clusters of COVID-19 in Local Communities: Case Study of Kansas City, Missouri, United States. Epidemiol. infect. , [United Kingdom], p. 1–24, Mar. 9, 2022. DOI: 10.1017/S0950268822000462. Disponível em: https://www.cambridge.org/core/product/identifier/S0950268822000462/type/journal_article. Acesso em: 10 mar. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/584729A35A16C7174561D8AF33C5C0DD/S0950268822000462a.pdf/prospective_spatialtemporal_clusters_of_covid19_in_local_communities_case_study_of_kansas_city_missouri_united_states.pdf

Título	Real-world evaluation of rapid and laboratory-free COVID-19 triage for emergency care: external validation and pilot deployment of artificial intelligence driven screening
Autor(es)	Andrew A S Soltan, Jenny Yang, Ravi Pattanshetty, Alex Novak, Yang Yang, Omid Rohanian, Sally Beer, Marina A Soltan, David R Thickett, Rory Fairhead, Tingting Zhu, David W Eyre, David A Clifton
Resumo	Uncertainty in patients' COVID-19 status contributes to treatment delays, nosocomial transmission, and operational pressures in hospitals. However, the typical turnaround time for laboratory PCR remains 12–24 h and lateral flow devices (LFDs) have limited sensitivity. Previously, we have shown that artificial intelligence-driven triage (CURIAL-1.0) can provide rapid COVID-19 screening using clinical data routinely available within 1 h of arrival to hospital. Here, we aimed to improve the time from arrival to the emergency department to the availability of a result, do external and prospective validation, and deploy a novel laboratory-free screening tool in a UK emergency department.
Referências	SOLTAN, A. A. S. *et al.* Real-world evaluation of rapid and laboratory-free COVID-19 triage for emergency care: external validation and pilot deployment of artificial intelligence driven screening. **The Lancet. Digital health**, [United Kingdom], p. S2589750021002727, Mar. 9, 2022. DOI: 10.1016/S2589-7500(21)00272-7. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S2589750021002727. Acesso em: 10 mar. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2589-7500%2821%2900272-7

Título	COVID-19 vaccine coverage and factors associated with vaccine uptake among 23 247 adults with a recent history of homelessness in Ontario, Canada: a population-based cohort study
Autor(es)	Salimah Z Shariff, Lucie Richard, Stephen W Hwang, Jeffrey C Kwong, Cheryl Forchuk, Naheed Dosani, Richard Booth
Resumo	People experiencing homelessness face a high risk of SARS-CoV-2 infection and transmission, as well as health complications and death due to COVID-19. Despite being prioritised for receiving the COVID-19 vaccine in many regions, little data are available on vaccine uptake in this vulnerable population. Using population-based health-care administrative data from Ontario, Canada—a region with a universal, publicly funded health system—we aimed to describe COVID-19 vaccine coverage (ie, the estimated percentage of people who have received a vaccine) and determinants of vaccine receipt among individuals with a recent history of homelessness.
Referências	SHARIFF, S. Z. *et al.* COVID-19 vaccine coverage and factors associated with vaccine uptake among 23 247 adults with a recent history of homelessness in Ontario, Canada: a population-based cohort study. **The Lancet. Public health**, [United Kingdom], p. S2468266722000378, Mar. 9, 2022. DOI: 10.1016/S2468-2667(22)00037-8. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S2468266722000378. Acesso em: 10 mar. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2468-2667%2822%2900037-8

Título	Maintaining face mask use before and after achieving different COVID-19 vaccination coverage levels: a modelling study
Autor(es)	Sarah M Bartsch, Kelly J O'Shea, Kevin L Chin, Ulrich Strych, Marie C Ferguson, Maria Elena Bottazzi, Patrick T Wedlock, Sarah N Cox, Sheryl S Siegmund, Peter J Hotez,Bruce Y Lee
Resumo	Face mask wearing has been an important part of the response to the COVID-19 pandemic. As vaccination coverage progresses in countries, relaxation of such practices is increasing. Subsequent COVID-19 surges have raised the questions of whether face masks should be encouraged or required and for how long. Here, we aim to assess the value of maintaining face masks use indoors according to different COVID-19 vaccination coverage levels in the USA.
Referências	BARTSCH, S. M. *et al.* Maintaining face mask use before and after achieving different COVID-19 vaccination coverage levels: a modelling study. **The Lancet. Public health**, [United Kingdom], p. S2468266722000408, Mar. 8, 2022. DOI: 10.1016/S2468-2667(22)00040-8 . Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S2468266722000408. Acesso em: 10 mar. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2468-2667%2822%2900040-8

Título	Safety of mRNA vaccines administered during the initial 6 months of the US COVID-19 vaccination programme: an observational study of reports to the Vaccine Adverse Event Reporting System and v-safe
Autor(es)	Hannah G Rosenblum, Julianne Gee, Ruiling Liu, Paige L Marquez, Bicheng Zhang, Penelope Strid, Winston E Abara, Michael M McNeil, Tanya R Myers, Anne M Hause, John R Su, Lauri E Markowitz, Tom T Shimabukuro, David K Shay
Resumo	In December, 2020, two mRNA-based COVID-19 vaccines were authorised for use in the USA. We aimed to describe US surveillance data collected through the Vaccine Adverse Event Reporting System (VAERS), a passive system, and v-safe, a new active system, during the first 6 months of the US COVID-19 vaccination programme.
Referências	ROSENBLUM, H. G. *et al.* Safety of mRNA vaccines administered during the initial 6 months of the US COVID-19 vaccination programme: an observational study of reports to the Vaccine Adverse Event Reporting System and v-safe. **Lancet. Infectious diseases**, [United Kingdom], p. S1473309922000548, Mar. 7, 2022. DOI: 10.1016/S1473-3099(22)00054-8. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S1473309922000548. Acesso em: 10 mar. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S1473-3099%2822%2900054-8

Título	Quantifying the effects of the COVID-19 pandemic on gender equality on health, social, and economic indicators: a comprehensive review of data from March, 2020, to September, 2021
Autor(es)	Luisa S Flor, Joseph Friedman, Cory N Spencer, John Cagney, Alejandra Arrieta, Molly E Herbert, Caroline Stein, Erin C Mullany, Julia Hon, Vedavati Patwardhan, Ryan M Barber, James K Collins, Simon I Hay, Stephen S Lim, Rafael Lozano, Ali H Mokdad, Christopher J L Murray, Robert C Reiner Jr, Reed J D Sorensen, David M Pigott†, Annie Haakenstad, Emmanuela Gakidou
Resumo	Gender is emerging as a significant factor in the social, economic, and health effects of COVID-19. However, most existing studies have focused on its direct impact on health. Here, we aimed to explore the indirect effects of COVID-19 on gender disparities globally.
Referências	FLOR, L. S. *et al.* Quantifying the effects of the COVID-19 pandemic on gender equality on health, social, and economic indicators: a comprehensive review of data from March, 2020, to September, 2021. **Lancet**, [United Kingdom], p. S0140673622000083, Mar. 2, 2022. DOI: 10.1016/S0140-6736(22)00008-3. Disponível em: https://www.thelancet.com/action/showPdf?pii=S0140-6736%2822%2900008-3. Acesso em: 10 mar. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S0140-6736%2822%2900008-3

Título	Waning immune responses against SARS-CoV-2 variants of concern among vaccinees in Hong Kong
Autor(es)	Qiaoli Peng, Runhong Zhou,Yuewen Wang, Meiqing Zhao, NA Liu,a, Shuang Li, Haode Huang, Dawei Yang, Ka-Kit Au, Hui Wang, Kwan Man, Kwok-Yung Yuen, Zhiwei Chen
Resumo	Nearly 4 billion doses of the BNT162b2-mRNA and CoronaVac-inactivated vaccines have been administrated globally, yet different vaccine-induced immunity against SARS-CoV-2 variants of concern (VOCs) remain incompletely investigated.
Referências	PENG, Q. *et al.* Waning immune responses against SARS-CoV-2 variants of concern among vaccinees in Hong Kong. **eBioMedicine**, [Netherlands], v. 77, p. 103904, Mar. 3, 2022. DOI: 10.1016/j.ebiom.2022.103904. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S2352396422000883. Acesso em: 10 mar. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2352-3964%2822%2900088-3

Título	Factors influencing wearing face mask in public during COVID-19 outbreak: a qualitative study
Autor(es)	Wei He, Duanying Cai, Guiling Geng, David Klug
Resumo	Objective: Wearing face masks is believed to mitigate COVID-19 virus transmission by filtering respiratory droplets. This study was to explore the factors influencing wearing face masks in public in China during COVID-19 outbreak. Methods: This study was a qualitative semi-structured interview research design and was guided by the Protection Motivation Theory. Participants from Jiangxi Province China were interviewed via WeChat video call. Thematic analysis was used to analyze the data. Results: Recruitment efforts were suspended when 21 participants (aged 23 to 72) were successfully enrolled and the data reached thematic saturation. Four themes were identified when participants described factors influencing them to wear face masks: knowledge of disease (subthemes were severity of disease, and individual vulnerability to disease), environmental facilitators and constraints (subthemes were government recommendations, public opinion, and affordability and availability of face masks), understanding of protection effectiveness (subthemes were protection effectiveness of wearing face masks, and selection of protective measures), and past experiences. Conclusions: Individuals' decision to wear face masks was influenced by the combination of factors identified. Identification of these factors provides guidance for explaining wearing face masks in public and helps policy makers develop feasible recommendations for wearing face masks during COVID-19 outbreak.
Referências	HE, W. *et al.* Factors influencing wearing face mask in public during COVID-19 outbreak: a qualitative study. **Disaster medicine and public health preparedness**, [United States], p. 1–24, Mar. 4, 2022. DOI: 10.1017/dmp.2022.52. Disponível em: https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/factors-influencing-wearing-face-mask-in-public-during-covid19-outbreak-a-qualitative-study/E254EB054438EFA89D39EAEA5AD002BF. Acesso em: 4 mar. 2022.
Fonte	https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/factors-influencing-wearing-face-mask-in-public-during-covid19-outbreak-a-qualitative-study/E254EB054438EFA89D39EAEA5AD002BF

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Título	Prevention and control measures for imported SARS-CoV-2 transmission during the postpandemic period in Shenzhen, China
Autor(es)	Xuru He, Fangfang Gong, Xizhuo Sun, Guangyu Hu, Jinchun Lin
Resumo	In China, most cities have gradually controlled the spread of SARS-CoV-2 and brought COVID-19 under control locally. This means that crucial work has shifted from internal management of the pandemic to external prevention and control, especially management of international travelers and imported goods. There is much uncertainty about variants of concern for SARS-CoV-2, which pose challenges to the steady resumption of social and economic life once the mutant strains begin to spread. The sporadic outbreaks of COVID-19 in different provinces of China caused by these mutant strains emphasizes the need for both prevention and control measures. Therefore, we introduce China's experience with preventing and controlling COVID-19 in the postpandemic period, which may serve as a reference in various settings.
Referências	XURU, He *et al.* Prevention and control measures for imported SARS-CoV-2 transmission during the postpandemic period in Shenzhen, China. **Disaster medicine and public health preparedness**, [United States], p. 1–18, Mar. 4, 2022. DOI: 10.1017/dmp.2022.54. Disponível em: https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/prevention-and-control-measures-for-imported-sarscov2-transmission-during-the-postpandemic-period-in-shenzhen-china/21A77A5B67203B00F780B0594405720F. Acesso em: 4 mar. 2022.
Fonte	https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/prevention-and-control-measures-for-imported-sarscov2-transmission-during-the-postpandemic-period-in-shenzhen-china/21A77A5B67203B00F780B0594405720F

Título	Infection, cases due to SARS-CoV-2 in rural areas during early COVID-19 vaccination: Findings from sero-survey study in a rural cohort of eastern India
Autor(es)	Pujarini Dash, Asit Mansingh, Soumya Ranjan Nayak, Debadutta Sahoo, Debdutta Bhattacharya, Srikanta Kanungo, Jaya Singh Kshatri, Bijaya Kumar Mishra, Matrujyoti Pattnaik, Debaprasad Parai, Hari Ram Choudhury, Swetalina Nayak, Khokan Rana, Alice Alce, Ajay Kumar Sahoo, Kanhu Charan Mohanty, Prasantajyoti Mohanty, Chinki Doley, Hitesh Jain, Dasarath Majhi, Pooja Patnaik, Santosh Behuria, Soumya Panda, Somnath Bhoi, Sanghamitra Pati, Subrata Kumar Palo
Resumo	COVID-19 serosurvey provides a better estimation of people who have developed antibody against the infection. But, limited information on such serosurveys in rural areas poses many hurdles to understand the epidemiology of the virus and to implement proper control strategies. This study was carried out in the rural catchment area of Model Rural Health Research Unit in Odisha, India during Mar-April 2021, the initial phase of COVID vaccination. A total of 60 village clusters from four study blocks were identified using probability proportionate to size sampling. From each cluster, 60 households and one eligible participant from each household (60 per cluster) were selected for collection of blood sample and socio-demographic data. Presence of SARS-CoV-2 antibody was tested using the Elecsys Anti-SARS-CoV-2 immunoassay. The overall seroprevalence after adjusting for test performance was 54.21% with an infection to case ratio of 96.89 along with 4.25 % partial and 6.79 % full immunization coverage. Highest sero-prevalence was observed in the age group of 19-44 yrs and female had both higher sero-prevalence as well as vaccine coverage. People of other backward caste also had higher sero-positivity than other caste categories. The study emphasizes on continuing surveillance for COVID-19 cases and prioritizing COVID-19 vaccination for susceptible groups for better disease management.
Referências	DASH, P. *et al.* Infection, cases due to SARS-CoV-2 in rural areas during early COVID-19 vaccination: Findings from sero-survey study in a rural cohort of eastern India. **Epidemiol. infect.,** [United Kingdom], p. 1–27, Mar. 3, 2022. DOI: 10.1017/S0950268822000346. Disponível em: https://www.cambridge.org/core/journals/epidemiology-and-infection/article/infection-cases-due-to-sarscov2-in-rural-areas-during-early-covid19-vaccination-findings-from-serosurvey-study-in-a-rural-cohort-of-eastern-india/2C6F8DAA58E675B5953D1E6200EED9B0. Acesso em: 4 mar. 2022.
Fonte	https://www.cambridge.org/core/journals/epidemiology-and-infection/article/infection-cases-due-to-sarscov2-in-rural-areas-during-early-covid19-vaccination-findings-from-serosurvey-study-in-a-rural-cohort-of-eastern-india/2C6F8DAA58E675B5953D1E6200EED9B0

Título	Pre-vaccination SARS-CoV-2 seroprevalence among staff and residents of nursing homes in Flanders (Belgium) in fall 2020
Autor(es)	Heidi Janssens , Stefan Heytens , Eline Meyers , Ellen De Schepper , An De Sutter , Brecht Devleesschauwer , Asangwing Formukong, Sara Keirse , Elizaveta Padalko , Tom Geens , Piet Cools
Resumo	Seroprevalence of SARS-CoV-2 IgG antibodies, using dried blood spots, was determined in OctoberNovember 2020, among residents and staff randomly selected from 20 NH geographically distributed in Flanders, Belgium. Sociodemographic and medical data (including COVID-19 symptoms and result of RT-PCR tests) were retrieved using questionnaires. The overall seroprevalence was 17.1% (95% confidence interval (CI), 14.9 - 19.5), with 18.9% (95% CI, 15.9 - 22.2) of the residents and 14.9% (95% CI, 11.9 - 18.4) of the staff having antibodies, which was higher than the seroprevalence in blood donors. The seroprevalence in the 20 NH varied between 0.0% and 45.0%. Fourteen per cent of the staff with antibodies, reported no typical COVID-19 symptoms, while in residents, 51.0% of those with antibodies had no symptoms. The generalized mixed effect model showed a positive association between COVID-19 symptoms and positive serology, but this relation was weaker in residents compared to staff. This study shows that NH are more affected by SARS-CoV-2 than the general population. The large variation between NH, suggests that some risk factors for the spread among residents and staff may be related to the NH. Further, the results suggest that infected people, without the typical COVID-19 symptoms, might play a role in outbreaks
Referências	JANSSENS, H. *et al.* Pre-vaccination SARS-CoV-2 seroprevalence among staff and residents of nursing homes in Flanders (Belgium) in fall 2020. **Epidemiol. infect.,** [United Kingdom], p. 1–25, Mar. 2, 2022. DOI: 10.1017/S095026882200036X. Disponível em: https://www.cambridge.org/core/journals/epidemiology-and-infection/article/prevaccination-sarscov2-seroprevalence-among-staff-and-residents-of-nursing-homes-in-flanders-belgium-in-fall-2020/A6F8BC54D1DA2B2E9C537AD0D0E7F2EA. Acesso em: 4 mar. 2022.
Fonte	https://www.cambridge.org/core/journals/epidemiology-and-infection/article/prevaccination-sarscov2-seroprevalence-among-staff-and-residents-of-nursing-homes-in-flanders-belgium-in-fall-2020/A6F8BC54D1DA2B2E9C537AD0D0E7F2EA

Título	SARS-CoV-2 exposure investigations using genomic sequencing among healthcare workers and patients in a large academic center
Autor(es)	Leigh Smith, C. Paul Morris, Morgan H Jibowu, Susan Fallon, Stuart C Ray, Sara E. Cosgrove, Melanie S. Curless, Valeria Fabre, Sara M. Karaba, Lisa L Maragakis, Aaron M Milstone, Anna C. Sick-Samuels, Polly Trexler, Heba H. Mostafa, Clare Rock, for the CDC Prevention Epicenter Program
Resumo	SARS-CoV-2 transmissions among healthcare personnel (HCP) and hospitalized patients are challenging to confirm. Investigation of infected persons often reveals multiple potential risk factors for viral acquisition. We combined exposure investigation with genomic analysis confirming two hospital-based clusters. Prolonged close contact with unmasked, unrecognized infectious, individuals was a common risk.
Referências	SMITH, L. *et al.* SARS-CoV-2 exposure investigations using genomic sequencing among healthcare workers and patients in a large academic center. **Infection control & hospital epidemiology**, [United Kingdom], p. 1–10, Mar. 2, 2022. DOI: 10.1017/ice.2022.37.Disponível em: https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/sarscov2-exposure-investigations-using-genomic-sequencing-among-healthcare-workers-and-patients-in-a-large-academic-center/777BE0309B48F4B50DE2D6207671F8CC. Acesso em: 4 mar. 2022.
Fonte	https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/sarscov2-exposure-investigations-using-genomic-sequencing-among-healthcare-workers-and-patients-in-a-large-academic-center/777BE0309B48F4B50DE2D6207671F8CC

Título	Real World Performance of SARS-CoV-2 Antigen Rapid Diagnostic Tests in Various Clinical Settings
Autor(es)	Gili Regev-Yochay, Or Kriger, Michael J. Mina, Sharon Beni, Carmit Rubin, Bella Mechnik, Sabrina Hason, Elad Biber, Bian Nadaf, Yitshak Kreiss, Sharon Amit
Resumo	Objective: To assess the validity of Antigen rapid diagnostic tests (Ag-RDT) for SARS-CoV-2 as decision support tool in various hospital-based clinical settings. Design: Retrospective cohort study among symptomatic and asymptomatic patients and Healthcare workers (HCW). Setting: A large tertiary teaching medical center serving as a major COVID-19 hospitalizing facility. Participants and Methods: Ag-RDTs' performance was assessed in three clinical settings: 1. Symptomatic patients and HCW presenting at the Emergency Departments 2. Asymptomatic patients screened upon hospitalization 3. HCW of all sectors tested at the HCW clinic following exposure. Results: We obtained 5172 samples from 4595 individuals, who had both Ag-RDT and quantitative real-time PCR (qRT-PCR) results available. Of these, 485 samples were positive by qRT-PCR. The positive percent agreement (PPA) of Ag-RDT was greater for lower cycle threshold (Ct) values, reaching 93% in cases where Ct-value was <25 and 85% where Ct-value was <30. PPA was similar between symptomatic and asymptomatic individuals. We observed a significant correlation between Ct-value and time from infection onset ($p<0.001$). Conclusions: Ag-RDT are highly sensitive to the infectious stage of COVID-19 manifested by either high viral load (lower Ct) or proximity to infection, whether patient is symptomatic or asymptomatic. Thus, this simple-to-use and inexpensive detection method can be used as a decision support tool in various in-hospital clinical settings, assisting patient flow and maintaining sufficient hospital staffing.
Referências	REGEV-YOCHAY, G. *et al.* Real World Performance of SARS-CoV-2 Antigen Rapid Diagnostic Tests in Various Clinical Settings. **Infection control & hospital epidemiology**, [United Kingdom], p. 1–20, Mar. 2, 2022. DOI: 10.1017/ice.2022.3. Disponível em: https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/real-world-performance-of-sarscov2-antigen-rapid-diagnostic-tests-in-various-clinical-settings/1B68A1F40D693F824447C511BF87F373. Acesso em: 4 mar. 2022.
Fonte	https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/real-world-performance-of-sarscov2-antigen-rapid-diagnostic-tests-in-various-clinical-settings/1B68A1F40D693F824447C511BF87F373

Título	Surveillance of COVID-19 vaccine effectiveness – a real-time case-control study in southern Sweden | Epidemiology & Infection | Cambridge Core
Autor(es)	Jonas Björk , Carl Bonander , Mahnaz Moghaddassi , Magnus Rasmussen , Ulf Malmqvist , Fredrik Kahn , Malin Inghammar
Resumo	The extensive register infrastructure available for COVID-19 surveillance in Scania county, Sweden, makes it possible to classify individual cases with respect to hospitalization and disease severity, stratify on time since last dose and demographic factors, account for prior infection, and extract data for population controls automatically. In the present study, we developed a case-control sampling design to surveil vaccine effectiveness in this ethnically and socioeconomically diverse population with more than 1.3 million inhabitants. The first surveillance results show that estimated vaccine effectiveness against hospitalization and severe disease 0-3 months after the last dose remained stable during the study period, but waned markedly 6 months after the last dose in persons aged 65 years or over.
Referências	BJÖRK, J. *et al.* Surveillance of COVID-19 vaccine effectiveness – a real-time case-control study in southern Sweden. **Epidemiol. infect.,** [United Kingdom], p. 1-15, Mar. 2, 2022. DOI: 10.1017/S0950268822000425. Disponível em: https://www.cambridge.org/core/journals/epidemiology-and-infection/article/surveillance-of-covid19-vaccine-effectiveness-a-realtime-casecontrol-study-in-southern-sweden/1D5E389B6A1328F4711ADAFFC62362F5. Acesso em: 4 mar. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/1D5E389B6A1328F4711ADAFFC62362F5/S0950268822000425a.pdf/surveillance_of_covid19_vaccine_effectiveness_a_realtime_casecontrol_study_in_southern_sweden.pdf

Título	Multi-omics evaluation of SARS-CoV-2 infected mouse lungs reveals dynamics of host responses
Autor(es)	Zhao Ni Wang, Xiang Sheng Yang, Jing Sun, Jin Cun Zhao, Nan Shan Zhong, Xiao Xiao Tang
Resumo	The outbreak of Coronavirus disease 2019 (COVID-19) throughout the world has caused millions of death, while the dynamics of host responses and the underlying regulation mechanisms during SARS-CoV-2 infection are not well depicted. Lung tissues from a mouse model sensitized to SARS-CoV-2 infection were serially collected at different time points for evaluation of transcriptome, proteome and phosphoproteome. We showed the ebb and flow of several host responses in the lung across viral infection. The signaling pathways and kinases regulating networks were alternated at different 25 phases of infection. This multiplex evaluation also revealed that many kinases of CDK 26 and MAPK family were interactive and served as functional hubs in mediating the 27 signal transduction during SARS-CoV-2 infection. Our study not only revealed the 28 dynamics of lung pathophysiology and their underlying molecular mechanisms during 29 SARS-CoV-2 infection, but also highlighted some molecules and signaling pathways 30 that might guide future investigations on COVID-19 therapies
Referências	ZHAO, Ni Wang *et al.* Multi-omics evaluation of SARS-CoV-2 infected mouse lungs reveals dynamics of host responses. **iScience**, [Netherlands], p. 103967, Feb. 22, 2022. DOI: 10.1016/j.isci.2022.103967. Disponível em: https://www.cell.com/iscience/abstract/S2589-0042(22)00237-1. Acesso em: 4 mar. 2022.
Fonte	https://www.cell.com/action/showPdf?pii=S2589-0042%2822%2900237-1

Título	The COVID heart—one year after SARS-CoV-2 infection, patients have an array of increased cardiovascular risks
Autor(es)	Jennifer Abbasi
Resumo	An analysis of data from nearly 154 000 US veterans with SARS-CoV-2 infection provides a grim preliminary answer to the question: What are COVID-19's long-term cardiovascular outcomes? The study, published in Nature Medicine by researchers at the Veterans Affairs (VA) St Louis Health Care System, found that in the year after recovering from the illness's acute phase, patients had increased risks of an array of cardiovascular problems, including abnormal heart rhythms, heart muscle inflammation, blood clots, strokes, myocardial infarction, and heart failure. What's more, the heightened risks were evident even among those who weren't hospitalized with acute COVID-19.
Referências	ABBASI, J. The COVID heart—one year after SARS-CoV-2 infection, patients have an array of increased cardiovascular risks. **JAMA**, [United States], Mar. 2, 2022. DOI: 10.1001/jama.2022.2411. Disponível em: https://doi.org/10.1001/jama.2022.2411. Acesso em: 4 mar. 2022.
Fonte	https://jamanetwork.com/journals/jama/fullarticle/2789793

Título	Association of COVID-19 quarantine duration and postquarantine transmission risk in 4 University cohorts
Autor(es)	Andrew Bo Liu, Dan Davidi, Hannah Emily Landsberg, Maria Francesconi, Judy T. Platt, Giang T. Nguyen, Sehyo Yune, Anastasia Deckard, Jamie Puglin, Steven B. Haase, Davidson H. Hamer, Michael Springer
Resumo	Optimal quarantine length for COVID-19 infection is unclear, in part owing to limited empirical data.To assess postquarantine transmission risk for various quarantine lengths and potential associations between quarantine strictness and transmission risk.Retrospective cohort study in 4 US universities from September 2020 to February 2021, including 3641 university students and staff who were identified as close contacts to individuals who tested positive for SARS-CoV-2 infection. Individuals were tested throughout the 10 to 14–day quarantine, and follow-up testing continued at least weekly throughout the 2020-2021 academic year.Strict quarantine, including designated housing with a private room, private bathroom, and meal delivery, vs nonstrict, which potentially included interactions with household members.Dates of last known exposure, last negative test result, and first positive test result during quarantine.This study included 301 quarantined university students and staff who tested SARS-CoV-2–positive (of 3641 quarantined total). These 301 individuals had a median (IQR) age of 22.0 (20.0-25.0) years; 131 (43.5%) identified as female; and 20 (6.6%) were staff. Of the 287 self-reporting race and ethnicity according to university-defined classifications, 21 (7.3%) were African American or Black, 60 (20.9%) Asian, 17 (5.9%) Hispanic or Latinx, 174 (60.6%) White, and 15 (5.2%) other (including multiracial and/or multiethnic). Of the 301 participants, 40 (13.3%; 95% CI, 9.9%-17.6%) had negative test results and were asymptomatic on day 7 compared with 15 (4.9%; 95% CI, 3.0%-8.1%) and 4 (1.4%; 95% CI, 0.4%-3.5%) on days 10 and 14, respectively. Individuals in strict quarantine tested positive less frequently than those in nonstrict quarantine (10% vs 12%; P = .04).To maintain the 5% transmission risk used as the basis for US Centers for Disease Control and Prevention’s 7-day test-based quarantine guidance, our data suggest that quarantine with quantitative polymerase chain reaction testing 1 day before intended release should be 10 days for nonstrict quarantine and 8 days for strict quarantine, as ongoing exposure during quarantine may be
Resumo	

	associated with the higher rate of positive test results following nonstrict quarantine.
Referências	LIU, A. B. *et al.* Association of COVID-19 Quarantine Duration and Postquarantine Transmission Risk in 4 University Cohorts. **JAMA network open**, [United States], v. 5, n. 2, p. e220088, FEB. 25, 2022. DOI: 10.1001/jamanetworkopen.2022.0088. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.0088. Acesso em: 4 mar. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2789427

Título	Association of COVID-19 infection with survival after in-hospital cardiac arrest among us adults
Autor(es)	Haley Wienkes, Kelley Vilen, Alexandra Lorentz, Daniel Gerlach, Xiong Wang, Amy Saupe, Richard Danila, Ruth Lynfield, Kirk Smith, Carlota Medus
Resumo	**Importance** Characterizing rates of SARS-CoV-2 infection among vaccinated and unvaccinated persons with the same exposure is critical to understanding the association of vaccination with the risk of infection with the Delta variant. Additionally, evidence of Delta variant transmission by children to vaccinated adults has important public health implications. **Objective** To characterize transmission and infection of SARS-CoV-2 among vaccinated and unvaccinated attendees of an indoor wedding reception. **Design, Setting, and Participants** This cohort study included attendees at an indoor wedding reception in Minnesota in July 2021. Data were collected from REDCap surveys and routine surveillance interviews. The full list of attendees and a partial list of emails were obtained. Fifty-seven attendees completed the emailed survey. Eighteen additional attendees were identified from the state health department COVID-19 surveillance database. **Exposures** Attendance at an indoor event. **Main Outcomes and Measures** Risk of SARS-CoV-2 infection among vaccinated and unvaccinated attendees, identification of an index case, whole genome sequencing (WGS) to identify the COVID-19 variant, understanding of transmission patterns, and assessment of secondary transmission. The primary case definition was an individual with a positive SARS-CoV-2 test who attended the wedding in the 14 days prior to their illness.**Results** Data were gathered for 75 attendees (mean [SE] age, 37.5 [13.7] years; 57 [76%] female individuals), of whom 56 (75%) were fully vaccinated, 4 (5%) were partially vaccinated, and 15 (20%) were unvaccinated. Of 62 attendees who were tested, 29 (47%) tested positive, including 16 of 46 fully vaccinated attendees (35%), 2 of 4 partially vaccinated attendees (50%), and 11 of 12 unvaccinated attendees (92%). Being unvaccinated was associated with a higher risk of infection compared with being vaccinated (risk ratio, 2.64; 95% CI, 1.71-4.06; *P* = .001). One unvaccinated adult required hospitalization. An unvaccinated child who was symptomatic on the event date was identified as the index case. Eleven specimens were available for WGS. All sequenced specimens were closely related and were identified as the Delta variant. WGS supported secondary transmission from a vaccinated individual with SARS-CoV-2.**Conclusions and Relevance** This cohort study identified a COVID-19 Delta variant outbreak at an indoor event despite a high proportion of vaccinated attendees. It found that vaccination was associated with a reduced risk of infection.

Referências	GIROTRA, S. *et al.* Association of COVID-19 infection with survival after in-hospital cardiac arrest among US adults. **JAMA network open**, [United States], v. 5, n. 3, p. e220752, Feb. 25, 2022. DOI: 10.1001/jamanetworkopen.2022.0752. Disponível em: https://doi.org/10.1001/jamanetworkopen.2022.0752. Acesso em: 4 mar. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2789424

Título	Efficacy of covid-19 vaccines in immunocompromised patients: systematic review and meta-analysis
Autor(es)	Ainsley Ryan Yan Bin Lee, Shi Yin Wong, Louis Yi Ann Chai, Soo Chin Lee, Matilda Xinwei Lee, Mark Dhinesh Muthiah, Sen Hee Tay, Chong Boon Teo, Benjamin Kye Jyn Tan, Yiong Huak Chan, Raghav Sundar, Yu Yang Soon
Resumo	Objective To compare the efficacy of covid-19 vaccines between immunocompromised and immunocompetent people.Design Systematic review and meta-analysis. Data sources PubMed, Embase, Central Register of Controlled Trials, COVID-19 Open Research Dataset Challenge (CORD-19), and WHO covid-19 databases for studies published between 1 December 2020 and 5 November 2021. ClinicalTrials.gov and the WHO International Clinical Trials Registry Platform were searched in November 2021 to identify registered but as yet unpublished or ongoing studies. Study selection Prospective observational studies comparing the efficacy of covid-19 vaccination in immunocompromised and immunocompetent participants. Methods A frequentist random effects meta-analysis was used to separately pool relative and absolute risks of seroconversion after the first and second doses of a covid-19 vaccine. Systematic review without meta-analysis of SARS-CoV-2 antibody titre levels was performed after first, second, and third vaccine doses and the seroconversion rate after a third dose. Risk of bias and certainty of evidence were assessed. Results 82 studies were included in the meta-analysis. Of these studies, 77 (94%) used mRNA vaccines, 16 (20%) viral vector vaccines, and 4 (5%) inactivated whole virus vaccines. 63 studies were assessed to be at low risk of bias and 19 at moderate risk of bias. After one vaccine dose, seroconversion was about half as likely in patients with haematological cancers (risk ratio 0.40, 95% confidence interval 0.32 to 0.50, I2=80%; absolute risk 0.29, 95% confidence interval 0.20 to 0.40, I2=89%), immune mediated inflammatory disorders (0.53, 0.39 to 0.71, I2=89%; 0.29, 0.11 to 0.58, I2=97%), and solid cancers (0.55, 0.46 to 0.65, I2=78%; 0.44, 0.36 to 0.53, I2=84%) compared with immunocompetent controls, whereas organ transplant recipients were 16 times less likely to seroconvert (0.06, 0.04 to 0.09, I2=0%; 0.06, 0.04 to 0.08, I2=0%). After a second dose, seroconversion remained least likely in transplant recipients (0.39, 0.32 to 0.46, I2=92%; 0.35, 0.26 to 0.46), with only a third achieving seroconversion. Seroconversion was increasingly likely in patients with haematological cancers (0.63, 0.57 to 0.69, I2=88%; 0.62, 0.54 to 0.70, I2=90%), immune

Resumo	mediated inflammatory disorders (0.75, 0.69 to 0.82, I2=92%; 0.77, 0.66 to 0.85, I2=93%), and solid cancers (0.90, 0.88 to 0.93, I2=51%; 0.89, 0.86 to 0.91, I2=49%). Seroconversion was similar between people with HIV and immunocompetent controls (1.00, 0.98 to 1.01, I2=0%; 0.97, 0.83 to 1.00, I2=89%). Systematic review of 11 studies showed that a third dose of a covid-19 mRNA vaccine was associated with seroconversion among vaccine non-responders with solid cancers, haematological cancers, and immune mediated inflammatory disorders, although response was variable in transplant recipients and inadequately studied in people with HIV and those receiving non-mRNA vaccines. Conclusion Seroconversion rates after covid-19 vaccination were significantly lower in immunocompromised patients, especially organ transplant recipients. A second dose was associated with consistently improved seroconversion across all patient groups, albeit at a lower magnitude for organ transplant recipients. Targeted interventions for immunocompromised patients, including a third (booster) dose, should be performed.
Referências	LEE, A. R. Y. B. *et al.* Efficacy of covid-19 vaccines in immunocompromised patients: systematic review and meta-analysis. **BMJ**, [United Kingdom], v. 376, p. e068632, Mar. 2, 2022. DOI: 10.1136/bmj-2021-068632. Disponível em: https://www.bmj.com/content/376/bmj-2021-068632. Acesso em: 4 mar. 2022.
Fonte	https://www.bmj.com/content/376/bmj-2021-068632

Título	The effect of maternal SARS-CoV-2 infection timing on birth outcomes: a retrospective multicentre cohort study
Autor(es)	Samantha N Piekos, Ryan T Roper, Yeon Mi Hwang, Tanya Sorensen, Nathan D Price, Leroy Hood, Jennifer J Hadlock
Resumo	The impact of maternal SARS-CoV-2 infection remains unclear. In this study, we evaluated the risk of maternal SARS-CoV-2 infection on birth outcomes and how this is modulated by the pregnancy trimester in which the infection occurs. We also developed models to predict gestational age at delivery for people following a SARS-CoV-2 infection during pregnancy.
Referências	PIEKOS, S. N. *et al.* The effect of maternal SARS-CoV-2 infection timing on birth outcomes: a retrospective multicentre cohort study. **The Lancet. Digital health**, [United Kingdom], p. S2589750021002508, Jan. 13, 2022. DOI: 10.1016/S2589-7500(21)00250-8. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S2589750021002508. Acesso em: 14 jan. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2589-7500%2821%2900250-8

Título	Risk of serious COVID-19 outcomes among adults with asthma in Scotland: a national incident cohort study
Autor(es)	Ting Shi, Jiafeng Pan, Eleftheria Vasileiou, Chris Robertson, Aziz Sheikh, on behalf of Public Health Scotland and the EAVE II Collaborators
Resumo	There is considerable uncertainty over whether adults with asthma should be offered booster vaccines against SARS-CoV-2 and, if so, who should be prioritised for booster vaccination. We were asked by the UK's Joint Commission on Vaccination and Immunisation to undertake an urgent analysis to identify which adults with asthma were at an increased risk of serious COVID-19 outcomes to inform deliberations on booster COVID-19 vaccines.
Referências	TING, Shi *et al.* Risk of serious COVID-19 outcomes among adults with asthma in Scotland: a national incident cohort study. **The Lancet. Respiratory medicine**, [Netherlands], p. S2213260021005439, Jan. 13, 2022. DOI: 10.1016/S2213-2600(21)00543-9. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S2213260021005439. Acesso em: 14 jan. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2213-2600%2821%2900543-9

Título	Prevalence of antibodies against SARS-CoV-2 among pregnant women in Norway during the period December 2019 through December 2020
Autor(es)	Anne Eskild, Lars Morkrid, Siri Beisland Mortensen, Truls Michael Leegaard5
Resumo	We studied SARS-CoV-2 seroprevalence among pregnant women in Norway by including all women who were first trimester pregnant (n=6520), each month from December 2019 through December 2020, in the catchment region of Norway's second largest hospital. We used sera that had been frozen stored after compulsory testing for syphilis antibodies in antenatal care. The sera were analyzed with the Elecsys® Anti-SARS-CoV-2 immunoassay (Roche Diagnostics, Cobas e801). This immunoassay detects IgG/IgM against SARS-CoV-2 nucleocapsid antigen. Sera with equivocal or positive test results were retested with the Liaison® SARS-CoV-2 S1/S2 IgG (DiaSorin), which detects IgG against the spike (S)1 and S2 protein on the SARS-CoV-2 virus. In total, 98 women (adjusted prevalence 1.7%) had SARS CoV-2 antibodies. The adjusted seroprevalence increased from 0.3% (1/445) in December 2019 to 5.7% (21/418) in December 2020. Out of the 98 seropositive women, 36 (36.7%) had serological signs of current SARS-CoV-2 infection at the time of serum sampling, and the incidence remained low during the study period. This study suggests that SARS CoV-2 was present in the first half of December 2019, six weeks before the first case was recognized in Norway. The low occurrence of SARS-CoV-2 infection during 2020, may be explained by high compliance to extensive preventive measures implemented early in the epidemic.
Referências	ESKILD, A. *et al.* Prevalence of antibodies against SARS-CoV-2 among pregnant women in Norway during the period December 2019 through December 2020. **Epidemiology and infection**, [United Kingdom], p. 1–9, Jan. 13, 2022. DOI: 10.1017/S0950268822000073. Disponível em: https://www.cambridge.org/core/product/identifier/S0950268822000073/type/journal_article. Acesso em: 14 jan. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/0178544CC4F04FC0A55C7B0BD5F28AB8/S0950268822000073a.pdf/prevalence_of_antibodies_against_sarscov2_among_pregnant_women_in_norway_during_the_period_december_2019_through_december_2020.pdf

Atualizado em: 24 de junho de 2022

Título	Management research contributions to the COVID-19: a bibliometric literature review and analysis of the contributions from the Journal of Management & Organization
Autor(es)	Oluremi B. Ayoko , Andrea Caputo, John Mendy
Resumo	The COVID-19 health crisis triggered changes in the workplace. This paper explores the insights from scholarly work published in the Journal of Management and Organization (JMO) and systematizes this body of knowledge to build a scientific overview that looks at how the COVID-19 health crisis and its repercussions may be managed by organizations. We conducted a bibliometric investigation of JMO's most influential papers published from 1995 to June 2020 that offers insights into the management of the COVID-19 crisis. Our bibliometric investigation reveals six clusters: (1) conservation of resources theory, entrepreneurs, gender and work–family conflict; (2) corporate governance, corporate social responsibility and stakeholder salience; (3) family firms, innovation and research methods; (4) creativity, leadership and organizational change; (5) job satisfaction and psychological empowerment; and (6) team performance. We discuss the theoretical and practical implications of our findings.
Referências	AYOKO, O. B.; CAPUTO, A.; MENDY, J. Management research contributions to the COVID-19: a bibliometric literature review and analysis of the contributions from the Journal of Management & Organization. **Journal of management & organization**, [Australia], p. 1–27, Jan. 10, 2022. DOI: 10.1017/jmo.2021.70. Disponível em: https://www.cambridge.org/core/journals/journal-of-management-and-organization/article/management-research-contributions-to-the-covid19-a-bibliometric-literature-review-and-analysis-of-the-contributions-from-the-journal-of-management-organization/FF5C5A6E305D37EC34ADC587C2A2840F. Acesso em: 14 jan. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/FF5C5A6E305D37EC34ADC587C2A2840F/S1833367221000705a.pdf/management_research_contributions_to_the_covid19_a_bibliometric_literature_review_and_analysis_of_the_contributions_from_the_journal_of_management_organization.pdf

Título	Knowledge, attitude, practice, behavior and risk perception of COVID-19 pandemic among University Students of Pakistan
Autor(es)	Madeeha Fatima, Aamna Habib , Saira Khan , Muhammad Hammad Butt , Tauqeer Hussain Mallhi, Yusra Habib Khan , Asifa Zaheer , Muhammad Umar Habib , Abdul Qayyum Khan , Muhammad Imran Khan , Azhar Iqbal , Malik Hassan Mehmood, Imran Masood
Resumo	Objective: Coronavirus disease 2019 (COVID-19) pandemic has substantially affected students around the globe due to the closure of educational institutes. However, student involvements and contributions are important in combating the disease for this reason current study was designed to assess the knowledge-attitude-practice (KAP), preventive behavior, and risk perception among university students.Methods: A cross-sectional survey-based study was conducted among university students of Punjab, Pakistan from April 1st to June 30th, 2020. The 68 items questionnaire was used to evaluated responses using statistical approaches (student's t-test, regression-analysis and corelation analysis) by considering p-value <0.05 statistically significant. Results: A total of 503 university students (medical and non-medical) were selected with the majority of participants were females (83%) and 64.5% were of age ranged from 16 to 21 years old. The participants (80%) reported good disease knowledge with a mean score of 12.06 ± 1.75 (p<0.05), which substantially higher among medical students. Most of the respondents (72%) believed that COVID-19 will be effectively controlled through precautionary measures. In correlation subgroup analysis, a significant relationship (p=0.025) between knowledge and positive attitude were indicated. Fear and knowledge of COVID-19 emerged as strong predictors (p<0.001) of preventive behaviors towards disease. Conclusion: This study demonstrated satisfactory knowledge, positive attitudes, and suitable practices among students towards COVID-19. University students can be involved in public education to aid the health authorities in achieving the targets of educational campaigns with maximum population coverage.
Referências	FATIMA, M. *et al.* Knowledge, attitude, practice, behavior and risk perception of COVID-19 pandemic among University Students of Pakistan. **Disaster medicine and public health preparedness**, [United States], p. 1–12, Jan. 10, 2022. DOI: 10.1017/dmp.2022.1. Disponível em: https://www.cambridge.org/core/product/identifier/S1935789322000015/type/journal_article. Acesso em: 14 jan. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/3FE12E8D6F4F840352F637CAFEB596E8/S1935789322000015a.pdf/knowledge_attitude_practice_behavior_and_risk_perception_of_covid19_pandemic_among_university_students_of_pakistan.pdf

Título	Does risk perception motivate preventive behavior during a pandemic? A longitudinal study in the United States and China
Autor(es)	Li, Ying Luan, Shenghua Li, Yugang Wu, Junhui Li, Wenqi Hertwig, Ralph
Resumo	Controlling the spread of an infectious disease depends critically on the general public's adoption of preventive measures. Theories of health behavior suggest that risk perceptions motivate preventive behavior. The supporting evidence for this causal link is, however, of questionable validity. The COVID-19 pandemic provides a rare opportunity to examine how risk perceptions, preventive behavior, and the link between them develop in a fast-changing risky environment. In a 4-wave longitudinal study conducted in the United States and China, we found that for Chinese participants, there was little relationship between risk perceptions and preventive behavior. This may be a result of the Chinese government's strict control and containment policies and a collectivistic culture that encourages conforming to norms—both of which limit individuals' nonconformist behavior. For U.S. participants, risk perceptions did motivate preventive behavior in the early stage of the pandemic; however, as time went by and the risk of COVID-19 persisted, preventive behavior also led to perception of higher infection risk, which in turn further motivated preventive behavior. Thus, instead of the presumed unidirectional influence from perception to behavior, our results indicate that the two could mutually reinforce each other. Overall, our findings suggest that risk perceptions—at least in the context of a dynamic health hazard—may only motivate preventive behavior at specific stages and under specific conditions. They also highlight the importance of early interventions in promoting preventive behavior. (PsycInfo Database Record (c) 2021 APA, all rights reserved)
Referências	LI, Ying *et al.* Does risk perception motivate preventive behavior during a pandemic? A longitudinal study in the United States and China. **American psychologist**, US, Dec. , 2021. DOI: 10.1037/amp0000885. Disponível em: https://psycnet.apa.org/fulltext/2022-16338-001.pdf. Acesso em: 14 jan. 2022.
Fonte	https://psycnet.apa.org/search/display?id=040abd60-7557-11ec-8130-8143cc1e14ce&recordId=10&tab=PA&page=1&display=25&sort=PublicationYearMSSort%20desc,AuthorSort%20asc&sr=1

Título	Omicron variant genome evolution and phylogenetics
Autor(es)	Mahmoud Kandeel,Maged E. M. Mohamed,Hany M. Abd El-Lateef,Katharigatta N. Venugopala,Hossam S. El-Beltagi
Resumo	Following the discovery of the SARS-CoV-2 Omicron variant (B.1.1.529), the global COVID-19 outbreak has resurfaced after appearing to be relentlessly spreading over the past 2 years. This new variant showed marked degree of mutation, compared with the previous SARS-CoV-2 variants. This study investigates the evolutionary links between Omicron variant and recently emerged SARS-CoV-2 variants. The entire genome sequences of SARS-CoV-2 variants were obtained, aligned using Clustal Omega, pairwise comparison was computed, differences, identity percent, gaps, and mutations were noted, and the identity matrix was generated. The phylogenetics of Omicron variants were determined using a variety of evolutionary substitution models. The ultrametric and metric clustering methods, such as UPGMA and neighbor-joining (NJ), using nucleotide substitution models that allowed the inclusion of nucleotide transitions and transversions as Kimura 80 models, revealed that the Omicron variant forms a new monophyletic clade that is distant from other SARS-CoV-2 variants. In contrast, the NJ method using a basic nucleotide substitution model such as Jukes–Cantor revealed a close relationship between the Omicron variant and the recently evolved Alpha variant. Based on the percentage of sequence identity, the closest variants were in the following order: Omicron, Alpha, Gamma, Delta, Beta, Mu, and then the SARS-CoV-2 USA isolate. A genome alignment with other variants indicated the greatest number of gaps in the Omicron variant's genome ranging from 43 to 63 gaps. It is possible, given their close relationship to the Alpha variety, that Omicron has been around for much longer than predicted, even though they created a separate monophyletic group. Sequencing initiatives in a systematic and comprehensive manner is highly recommended to study the evolution and mutations of the virus.
Referências	KANDEEL, M. *et al.* Omicron variant genome evolution and phylogenetics. **Journal of medical virology**, [United States], Dec, 2021. , Disponível em: https://onlinelibrary.wiley.com/doi/abs/10.1002/jmv.27515. Acesso em: 6 jan. 2022.
Fonte	https://onlinelibrary.wiley.com/doi/10.1002/jmv.27515

Título	Estimating COVID-19 infections, hospitalizations, and deaths following the US vaccination campaigns during the pandemic
Autor(es)	Thomas N. Vilches, Seyed M. Moghadas, Pratha Sah, Meagan C. Fitzpatrick, ; Affan Shoukat, Abhishek Pandey, ; Alison P. Galvani
Resumo	**Introduction ...**The COVID-19 pandemic has caused more than 745 000 deaths in the US. However, the toll might have been higher without the rapid development and delivery of effective vaccines. As of October 28, 2021, 69% of 258 million US adults had been fully vaccinated. Quantifying the population impact of COVID-19 vaccination can inform future vaccination strategies. Randomized clinical trials have established individual-level efficacy of authorized vaccines against the original strain, which exceeds 90% in preventing symptomatic and severe disease.[1-3] However, the population-level effectiveness of the vaccination campaign in the US, in terms of association with reduced infections, hospitalizations, and deaths, is not as well documented, and we evaluated this using a simulation model.
Referências	VILCHES, T. N. *et al.* Estimating COVID-19 infections, hospitalizations, and deaths following the US vaccination campaigns during the pandemic. **JAMA network open**, [United States], v. 5, n. 1, p. e2142725, Jan. 11, 2022. DOI: 10.1001/jamanetworkopen.2021.42725. Disponível em: https://doi.org/10.1001/jamanetworkopen.2021.42725. Acesso em: 14 jan. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2787935

Título	Outcomes of SARS-CoV-2–positive youths tested in emergency departments: the global PERN–COVID-19 study
Autor(es)	Anna L. Funk, Todd A. Florin, Nathan Kuppermann, Daniel J. Tancredi, Jianling Xie, Kelly Kim, Mark I. Neuman, Lilliam Ambroggio, Amy C. Plint, Santiago Mintegi, Terry P. Klassen, Marina I. Salvadori, Richard Malley, Daniel C. Payne, Norma-Jean Simon, Adriana Yock-Corrales, Jasmine R. Nebhrajani, Pradip P. Chaudhari, Kristen A. Breslin, Yaron Finkelstein, Carmen Campos, Kelly R. Bergmann, Maala Bhatt, Fahd A. Ahmad, Michael A. Gardiner, Usha R. Avva, Nipam P. Shah, Laura F. Sartori, Vikram J. Sabhaney, Kerry Caperell, Nidhya Navanandan, Meredith L. Borland, Claudia R. Morris, Iker Gangoiti, Viviana Pavlicich, Nirupama Kannikeswaran, Maren M. Lunoe, Pedro B. Rino, April J. Kam, Jonathan C. Cherry, Alexander J. Rogers, Shu-Ling Chong, Laura Palumbo, Carlos M. Angelats, Andrea K. Morrison, Maria Y. Kwok, Sarah M. Becker, Andrew C. Dixon, Naveen Poonai, Michelle Eckerle, Muhammad Wassem, Stuart R. Dalziel, Stephen B. Freedman, for the Pediatric Emergency Research Network-COVID-19 Study Team
Resumo	Severe outcomes among youths with SARS-CoV-2 infections are poorly characterized.To estimate the proportion of children with severe outcomes within 14 days of testing positive for SARS-CoV-2 in an emergency department (ED).This prospective cohort study with 14-day follow-up enrolled participants between March 2020 and June 2021. Participants were youths aged younger than 18 years who were tested for SARS-CoV-2 infection at one of 41 EDs across 10 countries including Argentina, Australia, Canada, Costa Rica, Italy, New Zealand, Paraguay, Singapore, Spain, and the United States. Statistical analysis was performed from September to October 2021.Acute SARS-CoV-2 infection was determined by nucleic acid (eg, polymerase chain reaction) testing.Severe outcomes, a composite measure defined as intensive interventions during hospitalization (eg, inotropic support, positive pressure ventilation), diagnoses indicating severe organ impairment, or death.Among 3222 enrolled youths who tested positive for SARS-CoV-2 infection, 3221 (>99.9%) had index visit outcome data available, 2007 (62.3%) were from the United States, 1694 (52.6%) were male, and 484 (15.0%) had a self-reported chronic illness; the median (IQR) age was 3 (0-10) years. After 14 days of follow-up, 735 children (22.8% [95% CI, 21.4%-24.3%]) were hospitalized, 107 (3.3% [95% CI, 2.7%-4.0%]) had severe outcomes, and 4 children

Resumo	(0.12% [95% CI, 0.03%-0.32%]) died. Characteristics associated with severe outcomes included being aged 5 to 18 years (age 5 to <10 years vs <1 year: odds ratio [OR], 1.60 [95% CI, 1.09-2.34]; age 10 to <18 years vs <1 year: OR, 2.39 [95% CI 1.38-4.14]), having a self-reported chronic illness (OR, 2.34 [95% CI, 1.59-3.44]), prior episode of pneumonia (OR, 3.15 [95% CI, 1.83-5.42]), symptoms starting 4 to 7 days prior to seeking ED care (vs starting 0-3 days before seeking care: OR, 2.22 [95% CI, 1.29-3.82]), and country (eg, Canada vs US: OR, 0.11 [95% CI, 0.05-0.23]; Costa Rica vs US: OR, 1.76 [95% CI, 1.05-2.96]; Spain vs US: OR, 0.51 [95% CI, 0.27-0.98]). Among a subgroup of 2510 participants discharged home from the ED after initial testing and who had complete follow-up, 50 (2.0%; 95% CI, 1.5%-2.6%) were eventually hospitalized and 12 (0.5%; 95% CI, 0.3%-0.8%) had severe outcomes. Compared with hospitalized SARS-CoV-2–negative youths, the risk of severe outcomes was higher among hospitalized SARS-CoV-2–positive youths (risk difference, 3.9%; 95% CI, 1.1%-6.9%).In this study, approximately 3% of SARS-CoV-2–positive youths tested in EDs experienced severe outcomes within 2 weeks of their ED visit. Among children discharged home from the ED, the risk was much lower. Risk factors such as age, underlying chronic illness, and symptom duration may be useful to consider when making clinical care decisions.
Referências	FUNK, A. L. *et al.* Outcomes of SARS-CoV-2–positive youths tested in emergency departments: the global PERN–COVID-19 study. **JAMA network open**, [United States], v. 5, n. 1, p. e2142322, Jan. 11, 2022. DOI: 10.1001/jamanetworkopen.2021.42322. Disponível em: https://doi.org/10.1001/jamanetworkopen.2021.42322. Acesso em: 14 jan. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2787931

Título	Assessment of administration and receipt of COVID-19 vaccines by race and ethnicity in US federally qualified health centers
Autor(es)	Megan B. Cole, Julia R. Raifman, Sabrina A. Assoumou, June-Ho Kim
Resumo	**Introduction...** Federally qualified health centers (FQHCs) care for low-income, racially and ethnically diverse, medically underserved populations disproportionately affected by COVID-19 and its associated health inequities.[1] As trusted, accessible entities, FQHCs may mitigate further inequities by providing access to COVID-19 vaccination in communities most affected by COVID-19 that have often been least likely to have access to vaccines.[2] The objectives of this study were to examine (1) COVID-19 vaccination administration rates at US FQHCs by race and ethnicity and (2) the racial and ethnic equity in vaccine receipt at FQHCs.
Referências	COLE, M. B. *et al.* Assessment of administration and receipt of COVID-19 vaccines by race and ethnicity in US federally qualified health centers. **JAMA network open**, [United States], v. 5, n. 1, p. e2142698, Jan. 10, 2022. DOI: 10.1001/jamanetworkopen.2021.42698. Disponível em: https://doi.org/10.1001/jamanetworkopen.2021.42698. Acesso em: 14 jan. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2787771

Título	Trajectory of viral rna load among persons with incident SARS-CoV-2 G614 infection (Wuhan Strain) in association with COVID-19 symptom onset and severity
Autor(es)	Helen C. Stankiewicz Karita, Tracy Q. Dong, Christine Johnston, Kathleen M. Neuzil, Michael K. Paasche-Orlow, Patricia J. Kissinger, Anna Bershteyn, Lorna E. Thorpe, Meagan Deming, Angelica Kottkamp, Miriam Laufer, Raphael J. Landovitz, Alfred Luk, Risa Hoffman, Pavitra Roychoudhury, Craig A. Magaret, Alexander L. Greninger, Meei-Li Huang, Keith R. Jerome, Mark Wener, Connie Celum, Helen Y. Chu, Jared M. Baeten, Anna Wald, Ruanne V. Barnabas, Elizabeth R. Brown
Resumo	The SARS-CoV-2 viral trajectory has not been well characterized in incident infections. These data are needed to inform natural history, prevention practices, and therapeutic development.To characterize early SARS-CoV-2 viral RNA load (hereafter referred to as viral load) in individuals with incident infections in association with COVID-19 symptom onset and severity.This prospective cohort study was a secondary data analysis of a remotely conducted study that enrolled 829 asymptomatic community-based participants recently exposed (<96 hours) to persons with SARS-CoV-2 from 41 US states from March 31 to August 21, 2020. Two cohorts were studied: (1) participants who were SARS-CoV-2 negative at baseline and tested positive during study follow-up, and (2) participants who had 2 or more positive swabs during follow-up, regardless of the initial (baseline) swab result. Participants collected daily midturbinate swab samples for SARS-CoV-2 RNA detection and maintained symptom diaries for 14 days.Laboratory-confirmed SARS-CoV-2 infection.The observed SARS-CoV-2 viral load among incident infections was summarized, and piecewise linear mixed-effects models were used to estimate the characteristics of viral trajectories in association with COVID-19 symptom onset and severity.A total of 97 participants (55 women [57%]; median age, 37 years [IQR, 27-52 years]) developed incident infections during follow-up. Forty-two participants (43%) had viral shedding for 1 day (median peak viral load cycle threshold [Ct] value, 38.5 [95% CI, 38.3-39.0]), 18 (19%) for 2 to 6 days (median Ct value, 36.7 [95% CI, 30.2-38.1]), and 31 (32%) for 7 days or more (median Ct value, 18.3 [95% CI, 17.4-22.0]). The cycle threshold value has an inverse association with viral load. Six participants (6%) had 1 to 6 days of viral shedding with censored duration. The peak mean (SD) viral load was observed on day 3 of shedding (Ct value, 33.8 [95% CI, 31.9-35.6]). Based on the statistical models fitted to 129 participants (60 men [47%]; median age,

Resumo	38 years [IQR, 25-54 years]) with 2 or more SARS-CoV-2–positive swab samples, persons reporting moderate or severe symptoms tended to have a higher peak mean viral load than those who were asymptomatic (Ct value, 23.3 [95% CI, 22.6-24.0] vs 30.7 [95% CI, 29.8-31.4]). Mild symptoms generally started within 1 day of peak viral load, and moderate or severe symptoms 2 days after peak viral load. All 535 sequenced samples detected the G614 variant (Wuhan strain).This cohort study suggests that having incident SARS-CoV-2 G614 infection was associated with a rapid viral load peak followed by slower decay. COVID-19 symptom onset generally coincided with peak viral load, which correlated positively with symptom severity. This longitudinal evaluation of the SARS-CoV-2 G614 with frequent molecular testing serves as a reference for comparing emergent viral lineages to inform clinical trial designs and public health strategies to contain the spread of the virus.
Referências	STANKIEWICZ KARITA, H. C. *et al.* Trajectory of viral rna load among persons with incident SARS-CoV-2 G614 infection (Wuhan Strain) in association with COVID-19 symptom onset and severity. **JAMA network open**, [United States], v. 5, n. 1, p. e2142796, Jan. 10, 2022. DOI: 10.1001/jamanetworkopen.2021.42796. Disponível em: https://doi.org/10.1001/jamanetworkopen.2021.42796. Acesso em: 14 jan. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2787768

Título	Optical genome mapping identifies rare structural variations as predisposition factors associated with severe COVID-19.
Autor(es)	Nikhil Shri Sahajpal , Chi-Yu Jill Lai , Alex Hastie , Ashis K Mondal , Siavash Raeisi Dehkordi, Caspar I. van der Made , Olivier Fedrigo , Farooq Al-Ajli , Sawan Jalnapurkar , Marta Byrska-Bishop , Rashmi Kanagal-Shamanna, Brynn Levy, Maximilian Schieck, Thomas Illig, Silviu-Alin Bacanu, Janet S. Chou, Adrienne G. Randolph, Amyn M. Rojiani , Michael C Zody , Catherine A. Brownstein, Alan H. Beggs, Vineet Bafna, Erich D. Jarvis, Alexander Hoischen , Alka Chaubey, Ravindra Kolhe and the COVID19hostgenomesv 9 consortium.
Resumo	Impressive global efforts have identified both rare and common gene variants associated with severe COVID-19 using sequencing technologies. However, these studies lack the sensitivity to accurately detect several classes of variants, especially large structural variants (SVs), which account for a substantial proportion of genetic diversity including clinically relevant variation. We performed optical genome mapping on severely-ill COVID-19 patients to identify rare/unique SVs as decisive predisposition factors associated with COVID-19. We identified 7 SVs involving genes implicated in two key host-viral interaction pathways: innate immunity and inflammatory response, and viral replication and spread in 9 patients, of which SVs in STK26 and DPP4 genes are the most intriguing candidates. This study is the first to systematically assess the potential role of SVs in the pathogenesis of COVID-19 severity and highlights the need to evaluate SVs along with sequencing variants to comprehensively associate genomic information with inter-individual variability in COVID-19 phenotypes.
Referências	SAHAJPAL, N. S. *et al.* Optical genome mapping identifies rare structural variations as predisposition factors associated with severe COVID-19. **iScience**, [Netherlands], p. 103760, Jan. 10, 2022. DOI: 10.1016/j.isci.2022.103760. Disponível em: https://www.cell.com/iscience/abstract/S2589-0042(22)00030-X. Acesso em: 14 jan. 2022.
Fonte	https://www.cell.com/action/showPdf?pii=S2589-0042%2822%2900030-X

Título	Immunity to SARS-CoV-2 up to 15 months after infection
Autor(es)	Harold Marcotte, Antonio Piralla, Fanglei Zuo, Likun Du, Irene Cassaniti, Hui Wan, Makiko Kumagai-Braesh, Juni Andréll, Elena Percivalle, Josè Camilla Sammartino, Yating Wang, Stelios Vlachiotis, Janine Attevall, Federica Bergami, Alessandro Ferrari, Marta Colaneri, Marco Vecchia, Margherita Sambo, Valentina Zuccaro, Erika Asperges, Raffaele Bruno, Tiberio Oggionni, Federica Meloni, Hassan Abolhassani, Federico Bertoglio, Maren Schubert, Luigi Calzolai, Luca Varani, Michael Hust, Yintong Xue, Lennart Hammarström, Fausto Baldanti, and Qiang Pan-Hammarström
Resumo	Information concerning the longevity of immunity to SARS-CoV-2 following natural infection may have considerable implications for durability of immunity induced by vaccines. Here, we monitored the SARS-CoV-2 specific immune response in COVID-19 patients followed up to 15 months after symptoms onset. Following a peak at day 15-28 post-infection, the IgG antibody response and plasma neutralizing titers gradually decreased over time but stabilized after 6 months. Compared to G614, plasma neutralizing titers were more than 8-fold lower against variants Beta, Gamma and Delta. SARS-CoV-2-specific memory B and T cells persisted in the majority of patients up to 15 months although a significant decrease in specific T cells, but not B cells, was observed between 6 and 15 months. The antiviral specific immunity especially memory B cells in COVID-19 convalescent patients is long-lasting, but some variants of concern may at least partially escape the neutralizing activity of plasma antibodies.
Referências	MARCOTTE, H. *et al.* Immunity to SARS-CoV-2 up to 15 months after infection. **iScience**, [Netherlands], p. 103743, Jan. 6, 2022. DOI: 10.1016/j.isci.2022.103743. Disponível em: https://www.cell.com/iscience/abstract/S2589-0042(22)00013-X. Acesso em: 14 jan. 2022.
Fonte	https://www.cell.com/action/showPdf?pii=S2589-0042%2822%2900013-X

Título	Understanding the implications of SARS-CoV-2 re-infections on immune response milieu, laboratory tests and control measures against COVID-19
Autor(es)	Jelili Olaide Mustapha, Idris Nasir Abdullahi, Odunayo O.R. Ajagbe , Anthony Uchenna Emeribe, Samuel Ayobami Fasogbon, Solomon Oloche Onoja, Charles Egede Ugwu, Chikodi Modesta Umeozuru, Folake Olubunmi Ajayi, Wudi Natasha Tanko, Pius Omoruyi Omosigho, Abdulmumuni Samuel Aliyu, Halima Ali Shuwa, Justin Onyebuchi Nwofe, Amos Dangana , Ovye Alaba , Peter Elisha Ghamba, Yakubu Ibrahim, Dorcas Aliyu , Olawale Sunday Animasaun , Nkechi Blessing Ugboaja, Mala Alhaji Baba Mallam , Sharafudeen Dahiru Abubakar , Maijidda Saidu Aminu , Hadiza Yahaya , Silifat Oyewusi
Resumo	Several months after the emergence of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), cases of re-infection after recovery were reported. The extent and duration of protective immunity after SARS-CoV-2 infection is not fully understood. As such, the possibility of re-infection with SARS-CoV-2. Furthermore, cases of re-infection were mainly due to different variants or mutant SARS-CoV-2. Following the fast and pandemicscale spread of COVID-19, mutations in SARS-CoV-2 have raised new diagnostic challenges which include the redesign of the oligonucleotide sequences used in RT-PCR assays to avoid potential primer–sample mismatches, and decrease sensitivities. Since the initial wave of the pandemic, some regions had experienced fresh outbreaks, predisposing people to be susceptible to SARS-CoV-2 re-infection. Hence, this article sought to offer detailed biology of SARS-CoV-2 re-infections and their implications on immune response milieu, diagnostic laboratory tests and control measures against COVID-19.
Referências	MUSTAPHA, J. O. *et al.* Understanding the implications of SARS-CoV-2 re-infections on immune response milieu, laboratory tests and control measures against COVID-19. **Heliyon**, [United Kingdom], v. 7, n. 1, p. e05951, Jan. 9, 2021. DOI: 10.1016/j.heliyon.2021.e05951. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S2405844021000566. Acesso em: 14 jan. 2022
Fonte	https://www.cell.com/action/showPdf?pii=S2405-8440%2821%2900056-6

Título	COVID-19 Vaccine Acceptance is associated with Vaccine Hesitancy, Perceived Risk and Previous Vaccination Experiences
Autor(es)	İlknur Dolu, Zeynep Turhan, Hacer Yalnız Dilcen
Resumo	Objective: This study examines the factors associated with the willingness to get the coronavirus vaccine among individuals aged 18 and above. Methods: This cross-sectional study was conducted in Turkey. The participants aged 18 and older were recruited between December 2020 and January 2021 through conventional social media sites. Snowball sampling was used. An anonymous questionnaire consisted of demographics, vaccination experiences, and perceived risk of coronavirus disease.Results: 1202 women and 651 men were included in the data analysis. Findings showed that demographics, vaccinations experience, and perceived risk of getting COVID-19 were explained 37% of the variance in people's willingness to get the COVID-19 vaccination according to hierarchical logistic regression. Furthermore, increasing age, being male, acquiring positive information about COVID-19 vaccines, having a lower level of vaccine hesitancy, the high level of worry about the COVID-19 and low level of perceptions of the possibility of becoming infected by the COVID-19 were the main predictors of COVID-19 vaccine willingness. Conclusions: Factors affecting adults' willingness to be inoculated with COVID-19 vaccines were related to demographics, vaccination experiences, and perceived risk of getting COVID-19. We recommend that public health authorities and practitioners should consider these multiple factors regarding vaccine confidence to achieve herd immunity.
Referências	DOLU, İ.; TURHAN, Z.; YALNIZ DILCEN, H. COVID-19 Vaccine acceptance is associated with vaccine hesitancy, perceived risk and previous vaccination experiences. **Disaster medicine and public health preparedness**, [United States], p. 1–23, Dec. 23, 2021. DOI: 10.1017/dmp.2021.370. Disponível em: https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/covid19-vaccine-acceptance-is-associated-with-vaccine-hesitancy-perceived-risk-and-previous-vaccination-experiences/6C0DC1C6B30766A6DB85CF2E343AEBD7. Acesso em: 6 jan. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/6C0DC1C6B30766A6DB85CF2E343AEBD7/S1935789321003700a.pdf/covid19_vaccine_acceptance_is_associated_with_vaccine_hesitancy_perceived_risk_and_previous_vaccination_experiences.pdf

Título	Spatial and temporal effects on SARS-CoV-2 contamination of the healthcare environment
Autor(es)	Matthew J. Ziegler, Emily Reesey, Michael Z. David, Brendan J. Kelly
Resumo	Background:The spatial and temporal extent of SARS-CoV-2 environmental contamination has not been precisely defined. We sought to elucidate contamination of different surface types and how contamination changes over time. Methods: We sampled surfaces longitudinally within COVID-19 patient rooms, performed quantitative RT-PCR for the detection of SARS-CoV-2 RNA, and modeled distance, time, and severity of illness on the probability of detecting SARS-CoV-2 using a mixed-effects binomial model. Results: The probability of detecting SARS-CoV-2 RNA in a patient room did not vary with distance. However, we found that surface type predicted probability of detection, with floors and high-touch surfaces having the highest probability of detection (floors odds ratio (OR) 67.8 (95% CrI 36.3 to 131); high-touch elevated OR 7.39 (95% CrI 4.31 to 13.1)). Increased surface contamination was observed in room where patients required high-flow oxygen, positive airway pressure, or mechanical ventilation (OR 1.6 (95% CrI 1.03 to 2.53)). The probability of elevated surface contamination decayed with prolonged hospitalization, but the probability of floor detection increased with duration of the local pandemic wave. Conclusions: Distance from patient's bed did not predict SARS-CoV-2 RNA deposition in patient rooms, but surface type, severity of illness, and time from local pandemic wave predicted surface deposition.
Referências	ZIEGLER, M. J. *et al.* Spatial and temporal effects on SARS-CoV-2 contamination of the healthcare environment. **Infection control and hospital epidemiology**, [United Kingdom], p. 1–16, Dec. 27, 2021. DOI: 10.1017/ice.2021.530. Disponível em: https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/spatial-and-temporal-effects-on-sarscov2-contamination-of-the-healthcare-environment/74A006DECACE142EF0BBDD0DDEA49BAF. Acesso em: 6 jan. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/74A006DECACE142EF0BBDD0DDEA49BAF/S0899823X21005304a.pdf/spatial_and_temporal_effects_on_sarscov2_contamination_of_the_healthcare_environment.pdf

Título	Comparison of four different threshold values of shock index in predicting mortality of COVID-19 patients
Autor(es)	Rohat Ak, Fatih Doğanay
Resumo	Objective: The object of this study was to examine the accuracy in pre-hospital shock index (SI) for predicting intensive care unit (ICU) requirement and 30-day mortality among from COVID-19 patients transported to the hospital by ambulance. Method: All consecutive patients who were the age ≥18 years, transported to the emergency department (ED) by ambulance with a suspected or confirmed COVID-19 in the pre-hospital frame were included in the study. Four different cut-off points were compared (0.7, 0.8, 0.9, and 1.0) to examine the predictive performance of both the mortality and ICU requirement of the SI. The receiver operating characteristic (ROC) curve and the area under the curve (AUC) was employed to evaluate each cut-off value discriminatory for predicting 30-day mortality and ICU admission. Results: The total of 364 patients was included in this study. The median age in the study population was 69 (55-80), of which 196 were men and 168 were women. AUC values for 30-day mortality outcome were calculated as 0.672, 0.674, 0.755, and 0.626, respectively, for threshold values of 0.7, 0.8, 0.9 and 1.0. ICU admission was more likely for the patients with pre-hospital SI> 0.9. Similarly, the mortality rate was higher in patients with pre-hospital SI> 0.9. Conclusion: Early triage of COVID-19 patients will ensure efficient use of healthcare resources. The SI could be a helpful, fast and powerful tool for predicting mortality status and ICU requirements of adult COVID-19 patients. It was concluded that the most useful threshold value for the shock index in predicting the prognosis of COVID-19 patients is 0.9.
Referências	AK, R.; DOĞANAY, F. Comparison of four different threshold values of shock index in predicting mortality of COVID-19 patients. **Disaster medicine and public health preparedness**, [United States], p. 1–15, Dec. 23, 2021. DOI: 10.1017/dmp.2021.374. Disponível em: https://www.cambridge.org/core/product/identifier/S1935789321003748/type/journal_article. Acesso em: 6 jan. 2022.
Fonte	https://www.cambridge.org/core/services/aop-cambridge-core/content/view/1C3CBD193C429E38A77DA2DE985DCF69/S1935789321003748a.pdf/comparison_of_four_different_threshold_values_of_shock_index_in_predicting_mortality_of_covid19_patients.pdf

Título	Initial impacts of the COVID-19 pandemic on sexual and reproductive health service use and unmet need in Britain: findings from a quasi-representative survey (Natsal-COVID)
Autor(es)	Emily Dema, Jo Gibbs, Soazig Clifton, Andrew J Copas, Clare Tanton, Julie Riddell, Raquel Bosó Pérez, David Reid, Chris Bonell, Magnus Unemo, Catherine H Mercer, Kirstin R Mitchell, Pam Sonnenberg, Nigel Field
Resumo	The COVID-19 pandemic has affected sexual and reproductive health (SRH) service use and unmet need, but the impact is unknown. We aimed to determine the proportion of participants reporting sexual risk behaviours, SRH service use and unmet need, and to assess remote sexually transmitted infection (STI) testing service use after the first national lockdown in Britain.
Referências	DEMA, E. *et al.* Initial impacts of the COVID-19 pandemic on sexual and reproductive health service use and unmet need in Britain: findings from a quasi-representative survey (Natsal-COVID). **The Lancet. Public health**, [United Kingdom], v. 7, n. 1, p. e36–e47, Jan. 1, 2022. DOI: 10.1016/S2468-2667(21)00253-X. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S246826672100253X. Acesso em: 6 jan. 2022.
Fonte	https://www.thelancet.com/action/showPdf?pii=S2468-2667%2821%2900253-X

Título	COVID-19 deaths helped drive largest drop in US life expectancy in more than 75 years
Autor(es)	Joan Stephenson
Resumo	Mortality rates for US residents 15 years or older increased sharply in 2020, fueled by nearly 351 000 deaths attributed to COVID-19 during the year. As a result, average US life expectancy at birth declined by nearly 2 years from that in 2019, according to a data brief from the Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS).The NCHS report, an analysis of finalized data collected from the nation's death certificates, noted that 3 383 729 resident deaths were registered in the US, nearly 529 000 more deaths than in 2019. The analysis showed that the average life expectancy for the US population in 2020 was 77.0 years, a decrease of 1.8 years from 2019 and the largest 1-year decline in more than 75 years.
Referências	STEPHENSON, J. COVID-19 deaths helped drive largest drop in US life expectancy in more than 75 Years. **JAMA health forum**, [United States], v. 3, n. 1, p. e215286, Jan. 4, 2022. DOI: 10.1001/jamahealthforum.2021.5286. Disponível em: https://doi.org/10.1001/jamahealthforum.2021.5286. Acesso em: 6 jan. 2022.
Fonte	https://jamanetwork.com/journals/jama-health-forum/fullarticle/2787892

Título	The intensifying threat of COVID-19 among first nations people of Australia: making up for lost time
Autor(es)	Lyndon Reilly, Mick Adams, Susan J. Rees
Resumo	Australia reached a tragic milestone on August 29, 2021, with the first COVID-19 death among the First Nations people. Since then, the SARS-CoV-2 Delta variant has infected First Nations people at twice the rate of other Australians. By mid-October 2021, there were an additional 12 deaths, more than 4500 cases, and 550 hospitalized among the First Nations people. A major concern is that Australia's states and territories will emerge from lockdown, with the expected surge in cases, when only 47% of Indigenous people (≥16 years old) have received 2 doses of an mRNA vaccine (vs 74% of the general population).
Referências	REILLY, L.; ADAMS, M.; REES, S. J. The Intensifying Threat of COVID-19 Among First Nations People of Australia: Making Up for Lost Time. **JAMA health forum**, [United States], v. 2, n. 12, p. e214356, Dec. 30, 2021. DOI: 10.1001/jamahealthforum.2021.4356. Disponível em: https://doi.org/10.1001/jamahealthforum.2021.4356. Acesso em: 6 jan. 2022.
Fonte	https://jamanetwork.com/journals/jama-health-forum/fullarticle/2787659

Título	Feasibility of SARS-CoV-2 surveillance testing among children and childcare workers at German day care centers: a nonrandomized controlled trial
Autor(es)	Johannes Forster, Andrea Streng, Paul Rudolph, Viktoria Rücker, Julia Wallstabe, Sandra Timme, Franziska Pietsch, Katrin Hartmann, Maike Krauthausen, Dipl Julia Schmidt, Timo Ludwig; David Gierszewski, Thomas Jans, Geraldine Engels, Benedikt Weißbrich, Marcel Romanos, ; Lars Dölken, Peter Heuschmann, Christoph Härtel, Ildikó Gágyor, Marc Thilo Figge, Oliver Kurzai, Johannes Liese, for the Wü-KiTa-CoV Study Group
Resumo	Closure of day care centers has been implemented globally to contain the COVID-19 pandemic but has negative effects on children's health and psychosocial well-being.To investigate the feasibility of surveillance among children and childcare workers and to model the efficacy of surveillance on viral spread prevention.This nonrandomized controlled trial was conducted at 9 day care centers in Wuerzburg, Germany, from October 2020 to March 2021. Participants included children attending day care, childcare workers, and household members. Participating day care centers were assigned to different surveillance modules in a nonrandomized feasibility study. A mathematical model for SARS-CoV-2 spread in day care centers was developed to identify optimal surveillance.Modules 1, 2, and 3 involved continuous surveillance of asymptomatic children and childcare workers by SARS-CoV-2 polymerase chain reaction testing of either midturbinate nasal swabs twice weekly (module 1) or once weekly (module 2) or self-sampled saliva samples twice weekly (module 3). Module 4 involved symptom-based, on-demand testing of children, childcare workers, and their household members by oropharyngeal swabs. All participants underwent SARS-CoV-2 antibody status testing before and after the sampling period. Questionnaires on attitudes and perception of the pandemic were administered in weeks 1, 6, and 12. Mathematical modeling was used to estimate SARS-CoV-2 spread in day care centers.The primary outcomes were acceptance of the respective surveillance protocols (feasibility study) and the estimated number of secondary infections (mathematical modeling).Of 954 eligible individuals (772 children and 182 childcare workers), 592 (62%), including 442 children (median [IQR] age, 3 [2-4] years; 214 [48.6%] female) and 150 childcare workers (median [IQR] age, 29 [25-44] years; 129 [90.8%] female) participated in the surveillance. In total, 4755 tests for SARS-CoV-2 detected 2 infections (1 childcare worker and 1 adult

Resumo	household member). Acceptance for continuous surveillance was highest for biweekly saliva testing (150 of 221 eligible individuals [67.9%; 95% CI, 61.5%-73.7%]) compared with biweekly (51 of 117 individuals [43.6%; 95% CI, 35.0%-52.6%]) and weekly (44 of 128 individuals [34.4%; 95% CI, 26.7%-43.0%]) midturbinate swabbing (P < .001). Dropout rates were higher for midturbinate swabbing (biweekly, 11 of 62 participants [18%]; once weekly, 11 of 55 participants [20%]) than for saliva testing (6 of 156 participants [4%]). Mathematical modeling based on study and literature data identified biweekly testing of at least 50% of children and childcare workers as minimal requirements to limit secondary infections.In this nonrandomized controlled trial, surveillance for SARS-CoV-2 in 9 German day care centers was feasible and well accepted. Mathematical modeling estimated that testing can minimize the spread of SARS-CoV-2 in day care centers. These findings enable setup of surveillance programs to maintain institutional childcare.German Registry for Clinical Trials Identifier: DRKS00023721.
Referências	FORSTER, J. *et al.* Feasibility of SARS-CoV-2 surveillance testing among children and childcare workers at German day care centers: a nonrandomized controlled trial. **JAMA network open**, [United States], v. 5, n. 1, p. e2142057, Jan. 4, 2022. DOI: 10.1001/jamanetworkopen.2021.42057. Disponível em: https://doi.org/10.1001/jamanetworkopen.2021.42057. Acesso em: 6 jan. 2022.
Fonte	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2787578

Título	Association of birth during the COVID-19 pandemic with neurodevelopmental status at 6 months in infants with and without in utero exposure to maternal SARS-CoV-2 infection
Autor(es)	Lauren C. Shuffrey, Morgan R. Firestein, Margaret H. Kyle, Andrea Fields, Carmela Alcántara, Dima Amso, Judy Austin, Jennifer M. Bain, Jennifer Barbosa, Mary Bence, Catherine Bianco, Cristina R. Fernández, Sylvie Goldman, Cynthia Gyamfi-Bannerman, Violet Hott, Yunzhe Hu, Maha Hussain, Pam Factor-Litvak, Maristella Lucchini, Arthur Mandel, Rachel Marsh, Danielle McBrian, Mirella Mourad, Rebecca Muhle, Kimberly G. Noble, Anna A. Penn, Cynthia Rodriguez, Ayesha Sania, Wendy G. Silver, Kally C. O'Reilly, Melissa Stockwell, Nim Tottenham, Martha G. Welch, Noelia Zork, William P. Fifer, Catherine Monk, Dani Dumitriu
Resumo	Associations between in utero exposure to maternal SARS-CoV-2 infection and neurodevelopment are speculated, but currently unknown.To examine the associations between maternal SARS-CoV-2 infection during pregnancy, being born during the COVID-19 pandemic regardless of maternal SARS-CoV-2 status, and neurodevelopment at age 6 months.A cohort of infants exposed to maternal SARS-CoV-2 infection during pregnancy and unexposed controls was enrolled in the COVID-19 Mother Baby Outcomes Initiative at Columbia University Irving Medical Center in New York City. All women who delivered at Columbia University Irving Medical Center with a SARS-CoV-2 infection during pregnancy were approached. Women with unexposed infants were approached based on similar gestational age at birth, date of birth, sex, and mode of delivery. Neurodevelopment was assessed using the Ages & Stages Questionnaire, 3rd Edition (ASQ-3) at age 6 months. A historical cohort of infants born before the pandemic who had completed the 6-month ASQ-3 were included in secondary analyses.Maternal SARS-CoV-2 infection during pregnancy and birth during the COVID-19 pandemic.Outcomes were scores on the 5 ASQ-3 subdomains, with the hypothesis that maternal SARS-CoV-2 infection during pregnancy would be associated with decrements in social and motor development at age 6 months.Of 1706 women approached, 596 enrolled; 385 women were invited to a 6-month assessment, of whom 272 (70.6%) completed the ASQ-3. Data were available for 255 infants enrolled in the COVID-19 Mother Baby Outcomes Initiative (114 in utero exposed, 141 unexposed to SARS-CoV-2; median maternal age at delivery, 32.0 [IQR, 19.0-45.0] years). Data were also available from a historical cohort of 62 infants born before the pandemic. In utero exposure to maternal SARS-CoV-2 infection was not associated with significant differences on any ASQ-3 subdomain, regardless of infection timing or severity. However, compared with the historical

Resumo	cohort, infants born during the pandemic had significantly lower scores on gross motor (mean difference, −5.63; 95% CI, −8.75 to −2.51; F1,267 = 12.63; P<.005), fine motor (mean difference, −6.61; 95% CI, −10.00 to −3.21; F1,267 = 14.71; P < .005), and personal-social (mean difference, −3.71; 95% CI, −6.61 to −0.82; F1,267 = 6.37; P<.05) subdomains in fully adjusted models.In this study, birth during the pandemic, but not in utero exposure to maternal SARS-CoV-2 infection, was associated with differences in neurodevelopment at age 6 months. These early findings support the need for long-term monitoring of children born during the COVID-19 pandemic.
Referências	SHUFFREY, L. C. *et al.* Association of birth during the COVID-19 pandemic with neurodevelopmental status at 6 months in infants with and without in utero exposure to maternal SARS-CoV-2 infection. **JAMA pediatrics**, [United States], p. e215563, Jan. 4, 2022. DOI: 10.1001/jamapediatrics.2021.5563. Disponível em: https://doi.org/10.1001/jamapediatrics.2021.5563. Acesso em: 6 jan. 2022.
Fonte	https://jamanetwork.com/journals/jamapediatrics/fullarticle/2787479

Título	Lottery-based incentives and COVID-19 vaccination rates in the US
Autor(es)	Anica C. Law, Daniel Peterson, Allan J. Walkey, Nicholas A. Bosch
Resumo	On May 12, 2021, Ohio announced a lottery system incentivizing residents to receive COVID-19 vaccinations; several US states subsequently introduced similar programs. Although analysis of vaccination rates from Ohio suggested that lottery-based incentives were not associated with increased vaccination rates, responses to lottery programs across other states are unclear. In this study, we assessed changes in COVID-19 vaccination rates across US states with lottery-based vaccine incentives.
Referências	LAW, A. C. *et al.* Lottery-based incentives and COVID-19 vaccination rates in the US. **JAMA internal medicine**, [United States], Jan. 4, 2022. DOI: 10.1001/jamainternmed.2021.7052. Disponível em: https://doi.org/10.1001/jamainternmed.2021.7052. Acesso em: 6 jan. 2022.
Fonte	https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2787782

Título	Characteristics and outcomes of hospitalized patients in South Africa during the COVID-19 Omicron wave compared with previous waves
Autor(es)	Caroline Maslo, Richard Friedland, Mande Toubkin, Rpaeds; Anchen Laubscher, Teshlin Akaloo, Boniswa Kama
Resumo	On November 24, 2021, a SARS-CoV-2 variant of concern, Omicron (B.1.1.529), was identified in South Africa as responsible for a fourth wave of COVID-19. The high number of spike mutations has raised concerns about its ability to evade vaccine and spread. We assessed hospitalized patients with a positive SARS-CoV-2 test result during the fourth wave compared with previous waves.
Referências	MASLO, C. *et al.* Characteristics and outcomes of hospitalized patients in South Africa during the COVID-19 Omicron wave compared with previous waves. **JAMA**, [United States], Dec. 30, 2021. DOI: 10.1001/jama.2021.24868 . Disponível em: https://doi.org/10.1001/jama.2021.24868. Acesso em: 6 jan. 2022.
Fonte	https://jamanetwork.com/journals/jama/fullarticle/2787776

Título	Belief in having had COVID-19 linked with long COVID symptoms
Autor(es)	Anita Slomski
Resumo	People who thought they'd been infected with SARS-CoV-2 had more persistent symptoms than those whose infections were confirmed by antibody testing in a recent study.Researchers analyzed survey data and serology results from 26 823 adults in France. They found no relationship between the participants' belief about whether they'd had COVID-19 and their antibody test results from blood samples collected between May and November 2020. In fact, about half of participants who believed that they'd had COVID-19 tested negative for SARS-CoV-2 antibodies. False-negative results were unlikely to have influenced the associations substantially, according to the authors.
Referências	SLOMSKI, A. Belief in having had COVID-19 linked with long COVID symptoms. **JAMA**, [United States], v. 327, n. 1, p. 26, Jan. 14, 2022. DOI: 10.1001/jama.2021.23318. Disponível em: https://doi.org/10.1001/jama.2021.23318. Acesso em: 6 jan. 2022.
Fonte	https://jamanetwork.com/journals/jama/fullarticle/2787741

Título	[Production_in_progress] COVID-19 vaccination uptake amongst ethnic minority communities in England: a linked study exploring the drivers of differential vaccination rates
Autor(es)	Charlotte Hannah Gaughan, Cameron Razieh, Kamlesh Khunti, Amitava Banerjee, Yogini V Chudasama, Melanie J Davies, Ted Dolby, Clare L Gillies, Claire Lawson, Evgeny M Mirkes, Jasper Morgan, Karen Tingay, Francesco Zaccardi, Thomas Yates, Vahe Nafilyan
Resumo	Despite generally high coronavirus disease 2019 (COVID-19) vaccination rates in the UK, vaccination hesitancy and lower take-up rates have been reported in certain ethnic minority communities. Methods: We used vaccination data from the National Immunisation Management System (NIMS) linked to the 2011 Census and individual health records for subjects aged ≥40 years (n = 24 094 186). We estimated age-standardized vaccination rates, stratified by ethnic group and key sociodemographic characteristics, such as religious affiliation, deprivation, educational attainment, geography, living conditions, country of birth, language skills and health status. To understand the association of ethnicity with lower vaccination rates, we conducted a logistic regression model adjusting for differences in geographic, sociodemographic and health characteristics.Results: All ethnic groups had lower age-standardized rates of vaccination compared with the white British population, whose vaccination rate of at least one dose was 94% (95% CI: 94%–94%). Black communities had the lowest rates, with 75% (74–75%) of black African and 66% (66–67%) of black Caribbean individuals having received at least one dose. The drivers of these lower rates were partly explained by accounting for sociodemographic differences. However, modelled estimates showed significant differences remained for all minority ethnic groups, compared with white British individuals.Conclusions: Lower COVID-19 vaccination rates are consistently observed amongst all ethnic minorities.
Referências	GAUGHAN , Charlotte Hannah *et al.* COVID-19 vaccination uptake amongst ethnic minority communities in England: a linked study exploring the drivers of differential vaccination rates **. Journal of public health**, [United Kingdom], Jan. 6, 2022. DOI: 10.1093/pubmed/fdab400. Disponível em: http://fdslive.oup.com/www.oup.com/pdf/production_in_progress.pdf. Acesso em: 6 jan. 2022.
Fonte	https://academic.oup.com/jpubhealth/advance-article/doi/10.1093/pubmed/fdab400/6498223?searchresult=1

Título	Predicting death from COVID-19 using pre-existing conditions: implications for vaccination triage
Autor(es)	Shujie Xiao, Neha Sahasrabudhe, Samantha Hochstadt, Whitney Cabral, Samantha Simons, Mao Yang, David E Lanfear, L Keoki Williams
Resumo	Introduction: Global shortages in the supply of SARS-CoV-2 vaccines have resulted in campaigns to first inoculate individuals at highest risk for death from COVID-19. Here, we develop a predictive model of COVID-19-related death using longitudinal clinical data from patients in metropolitan Detroit. Methods: All individuals included in the analysis had a laboratory-confirmed SARS-CoV-2 infection. Thirty-six pre-existing conditions with a false discovery rate p<0.05 were combined with other demographic variables to develop a parsimonious prediction model using least absolute shrinkage and selection operator regression. The model was then prospectively validated in a separate set of individuals with confirmed COVID-19. Results: The study population consisted of 15 502 individuals with laboratory-confirmed SARS-CoV-2. The main prediction model was developed using data from 11 635 individuals with 709 reported deaths (case fatality ratio 6.1%). The final prediction model consisted of 14 variables with 11 comorbidities. This model was then prospectively assessed among the remaining 3867 individuals (185 deaths; case fatality ratio 4.8%). When compared with using an age threshold of 65 years, the 14-variable model detected 6% more of the individuals who would die from COVID-19. However, below age 45 years and its risk equivalent, there was no benefit to using the prediction model over age alone. Discussion: Using a prediction model, such as the one described here, may help identify individuals who would most benefit from COVID-19 inoculation, and thereby may produce more dramatic initial drops in deaths through targeted vaccination.
Referências	SHUJIE, Xiao *et al.* Predicting death from COVID-19 using pre-existing conditions: implications for vaccination triage. **BMJ open respiratory research**, [United Kingdom], v. 8, n. 1, p. e001016, 2021. DOI: 10.1136/bmjresp-2021-001016. Disponível em: https://bmjopenrespres.bmj.com/lookup/doi/10.1136/bmjresp-2021-001016. Acesso em: 6 jan. 2022.
Fonte	https://bmjopenrespres.bmj.com/content/bmjresp/8/1/e001016.full.pdf

Título	Epidemiological changes of common respiratory viruses in children during the COVID-19 pandemic
Autor(es)	Qing Ye,Dongjie Wang
Resumo	A variety of non-pharmaceutical interventions (NPIs) have been implemented to control the transmission of COVID-19 in China. The effect of NPIs on other common respiratory viruses in children of different age groups has not been examined thus far. Respiratory specimens of children were collected to detect common childhood respiratory viruses, including influenza A (FluA), influenza B (FluB), adenovirus (ADV), and respiratory syncytial virus (RSV), at the Children's Hospital of Zhejiang University School of Medicine from January 1, 2019, to December 31, 2020. The epidemiological characteristics of the respiratory viruses in 2020 were compared with those in 2019. From January 2019 to December 2020, 165622 specimens were collected. The proportion of infants aged 0-28 days (683, 2.24% vs 1295, 0.96%, *P*=0.000) and 1-12 months (8560, 28.12% vs 20875, 15.43%, *P*=0.000) in 2020 increased significantly compared with that in 2019. There were two obvious increases in April and September in the number of specimens in children aged 4-6 years and >7 years. FluA, FluB, and RSV's age distribution patterns were surprisingly consistent with each other in 2020, and the positive rates of children aged 1-12 months were the highest in all age groups (FluA: 4.45%, FluB: 3.30%, RSV: 7.35%). Our study further confirms that the NPIs significantly decreased the transmission of common childhood respiratory viruses. The change in circulation characteristics of common respiratory viruses of children in different age groups varied. Therefore, we recommend that different protection strategies should be introduced for children of different age groups.
Referências	QING, Ye ; DONGJIE, Wang. Epidemiological changes of common respiratory viruses in children during the COVID-19 pandemic. **Journal of medical virology**, [United States], Jan. 4, 2022. DOI: 10.1002/jmv.27570. Disponível em: https://onlinelibrary.wiley.com/doi/abs/10.1002/jmv.27570. Acesso em: 6 jan. 2022.
Fonte	https://onlinelibrary.wiley.com/doi/10.1002/jmv.27570

Título	Humoral immune response to Covid-19 vaccination in diabetes: age-dependent but independent of type of diabetes and glycaemic control - the prospective COVAC-DM cohort study
Autor(es)	Caren Sourij, Norbert J Tripolt, Faisal Aziz,Felix Aberer, Patrick Forstner, Anna M Obermayer,Harald Kojzar, Barbara Kleinhappl, Peter N Pferschy, Julia K Mader, Gerhard Cvirn, Nandu Goswami, Nadine Wachsmuth, Max L. Eckstein, Alexander Müller, Farah Abbas Jacqueline Lenz,Michaela Steinberger, Lisa Knoll,Robert Krause, Martin Stradner, Peter Schlenke,,Nazanin Sareban, Barbara Prietl ,Susanne Kaser, Othmar Moser, Ivo Steinmetz, Harald Sourij
Resumo	Aims Immune response to COVID-19 vaccination and a potential impact of glycaemia on antibody levels in people with diabetes remains unclear. We investigated the seroconversion following first and second COVID-19 vaccination in people with type 1 and type 2 diabetes in relation to glycaemic control prior to vaccination and analysed the response in comparison to individuals without diabetes. Materials and Methods This prospective, multicenter cohort study analysed people with type 1 and type 2 diabetes and an HbA1c ≤7.5% (58 mmol/mol) or >7.5% (58 mmol/mol), respectively and healthy controls. Roche's Elecsys anti-SARS-CoV-2 S immunoassay targeting the receptor-binding domain was used to quantify anti-spike protein antibodies 7-14 days after the first and 14-21 days after the second vaccination. Results 86 healthy controls and 161 participants with diabetes were enrolled, 150 (75 with type 1 diabetes and 75 with type 2 diabetes) were eligible for the analysis. After the first vaccination, only 52.7% in the type 1 diabetes group and 48.0% in the type 2 diabetes group showed antibody levels above the cut-off for positivity. Antibody levels after the second vaccination were similar in people with type1, type 2 diabetes and healthy controls if adjusted for age, sex and multiple testing ($p>0.05$). Age ($r=-0.45$, $p<0.001$) and glomerular filtration rate ($r=0.28$, $p=0.001$) were significantly associated with antibody response. Conclusions Anti-SARS-CoV-2 S receptor-binding domain antibody levels after the second vaccination were comparable in healthy controls, people with type 1 and type 2 diabetes, irrespective of glycaemic control. Age and renal function correlated significantly with the extent of antibody levels. This article is protected by copyright. All rights reserved.
Referências	SOURIJ, C. *et al.* Humoral immune response to Covid-19 vaccination in diabetes: age-dependent but independent of type of diabetes and glycaemic control - the prospective COVAC-DM cohort study. **Diabetes, obesity and metabolism**, [United Kingdom], Jan. 4, 2022. DOI: 10.1111/dom.14643. Disponível em: https://onlinelibrary.wiley.com/doi/abs/10.1111/dom.14643. Acesso em: 6 jan. 2022.
Fonte	https://dom-pubs.onlinelibrary.wiley.com/doi/10.1111/dom.14643

Título	Omicron variant genome evolution and phylogenetics
Autor(es)	Mahmoud Kandeel,Maged E. M. Mohamed,Hany M. Abd El-Lateef,Katharigatta N. Venugopala,Hossam S. El-Beltagi
Resumo	Following the discovery of the SARS-CoV-2 Omicron variant (B.1.1.529), the global COVID-19 outbreak has resurfaced after appearing to be relentlessly spreading over the past 2 years. This new variant showed marked degree of mutation, compared with the previous SARS-CoV-2 variants. This study investigates the evolutionary links between Omicron variant and recently emerged SARS-CoV-2 variants. The entire genome sequences of SARS-CoV-2 variants were obtained, aligned using Clustal Omega, pairwise comparison was computed, differences, identity percent, gaps, and mutations were noted, and the identity matrix was generated. The phylogenetics of Omicron variants were determined using a variety of evolutionary substitution models. The ultrametric and metric clustering methods, such as UPGMA and neighbor-joining (NJ), using nucleotide substitution models that allowed the inclusion of nucleotide transitions and transversions as Kimura 80 models, revealed that the Omicron variant forms a new monophyletic clade that is distant from other SARS-CoV-2 variants. In contrast, the NJ method using a basic nucleotide substitution model such as Jukes–Cantor revealed a close relationship between the Omicron variant and the recently evolved Alpha variant. Based on the percentage of sequence identity, the closest variants were in the following order: Omicron, Alpha, Gamma, Delta, Beta, Mu, and then the SARS-CoV-2 USA isolate. A genome alignment with other variants indicated the greatest number of gaps in the Omicron variant's genome ranging from 43 to 63 gaps. It is possible, given their close relationship to the Alpha variety, that Omicron has been around for much longer than predicted, even though they created a separate monophyletic group. Sequencing initiatives in a systematic and comprehensive manner is highly recommended to study the evolution and mutations of the virus.
Referências	KANDEEL, M. *et al.* Omicron variant genome evolution and phylogenetics. **Journal of medical virology**, [United States], Dec. 10, 2021. DOI: 10.1002/jmv.27515. Disponível em: https://onlinelibrary.wiley.com/doi/abs/10.1002/jmv.27515. Acesso em: 6 jan. 2022.
Fonte	https://onlinelibrary.wiley.com/doi/10.1002/jmv.27515

Título	Emergence of new SARS-CoV-2 Variant of Concern Omicron (B.1.1.529) - highlights Africa's research capabilities, but exposes major knowledge gaps, inequities of vaccine distribution, inadequacies in global COVID-19 response and control efforts
Autor(es)	Eskild Petersen, Francine Ntoumi, David S Hui, Aisha Abubakar, Laura D Kramer, Christina Obiero, Paul Anantharajah Tambyah , Lucille Blumberg , Richard Yapi, Seif Al-Abri , Tatiana de Castro Abreu Pinto, Dorothy Yeboah-Manu, Najmul Haider, Danny Asogun , Thirumalaisamy P Velavan, Nathan Kapata, Matthew Bates , Rashid Ansumana, Chiara Montaldo, Luchenga Mucheleng'anga, John Tembo, Peter Mwaba, Cordelia M Himwaze, Muzamil Mahdi Abdel Hamid, Sayoki Mfinanga, Leonard Mboera, Tajudeen Raj, Eleni Aklillu , Francisco Veas, Sarah Edwards, Pontiano Kaleebu, Timothy D McHugh, Jeremiah Chakaya, Thomas Nyirenda, Moses Bockarie, Peter S Nyasulu, Christian Wejse, Jean-Jacques Muyembe-Tamfum, Esam I Azhar, Markus Maeurer, Jean B Nachega, Richard Kock, Giuseppe Ippolito, Alimuddin Zumla
Resumo	*Introduction...* Nearly two years since the start of the SARS-CoV-2 pandemic, which has caused over 5 million deaths, the world continues to be on high COVID-19 alert. The World Health Organization (WHO), in collaboration with national authorities, public health institutions and scientists have been closely monitoring and assessing the evolution of SARS-CoV-2 since January 2020 [...]
Referências	PETERSEN, E. *et al.* Emergence of new SARS-CoV-2 Variant of Concern Omicron (B.1.1.529) - highlights Africa's research capabilities, but exposes major knowledge gaps, inequities of vaccine distribution, inadequacies in global COVID-19 response and control efforts. **International journal of infectious diseases**, [Netherlands], v. 114, p. 268–272, Jan. 1, 2022. DOI: 10.1016/j.ijid.2021.11.040. Disponível em: https://pubmed.ncbi.nlm.nih.gov/34863925/. Acesso em: 6 jan. 2022.
Fonte	https://www.ijidonline.com/article/S1201-9712(21)00888-2/fulltext

Título	Decreased severity of disease during the first global omicron variant covid-19 outbreak in a large hospital in tshwane, south Africa
Autor(es)	F. Abdullah , J. Myers , D. Basu , G. Tintinger , V. Ueckermann , M. Mathebula , R. Ramlall , S. Spoor , T. de Villiers , Z. Van der Walt , J. Cloete , P. Soma-Pillay , P. Rheeder , F. Paruk , A. Engelbrecht , V. Lalloo , M. Myburg , J. Kistan , W. von Hougenhouck-Tulleken , M.T. Boswell , G. Gray , R. Welch , L. Blumberg , W. Jassat
Resumo	METHODS : 466 hospital COVID-19 admissions since 14 November 2021 were compared to 3976 prior admissions since 4 May 2020. Ninety-eight patient records at peak bed occupancy during the outbreak were reviewed for primary indication for admission, clinical severity, oxygen supplementation level, vaccination and prior COVID-19 infection. Provincial and city-wide daily cases and reported deaths hospitalizations and excess deaths data were sourced from the NICD, the National Department of Health and the South African Medical Research Council. RESULTS Deaths and ICU admissions were 4.5% vs 21.3% (p<0.00001), and 1% vs 4.3% (p<0.00001); length of stay was 4.0 days vs 8.8 days; and mean age was 39 years vs 49 years for the Omicron and previous waves respectively. Admissions peaked and declined rapidly with peak bed occupancy at 51% of highest previous peak. Sixty two (63%) patients in COVID-19 wards had incidental COVID-19 following a positive SARS-CoV-2 PCR test . Only one third (36) had COVID-19 pneumonia, of which 72% had mild to moderate disease. The remaining 38% required high care or ICU admission. Fewer than half (45%) of patients in COVID-19 wards compared to 99.5% in the first wave required oxygen supplementation. City and provincial rates show decoupling of cases, hospitalisations and deaths compared to previous waves, corroborating the clinical findings of milder omicron disease in the hospital.CONCLUSION: There was decreased severity of disease in the Omicron driven fourth wave in the City of Tshwane, its first global epicentre.
Referências	ABDULLAH, F. *et al.* Decreased severity of disease during the first global omicron variant covid-19 outbreak in a large hospital in tshwane, south Africa. **International journal of infectious diseases**, [Netherlands], p. S120197122101256X, Dec. 28, 2021. DOI: 10.1016/j.ijid.2021.12.357. Disponível em: https://linkinghub.elsevier.com/retrieve/pii/S120197122101256X. Acesso em: 6 jan. 2022.
Fonte	https://www.ijidonline.com/article/S1201-9712(21)01256-X/fulltext#relatedArticles