RICERCA BIBLIOGRAFICA COVID 19

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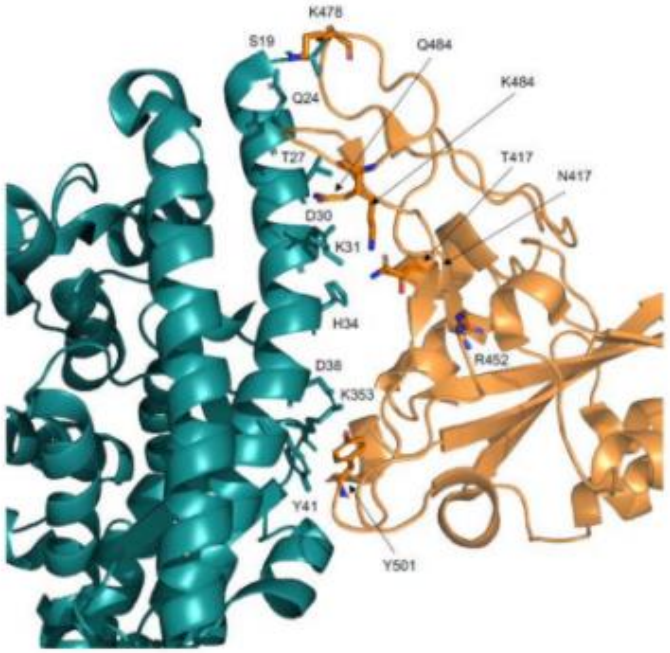
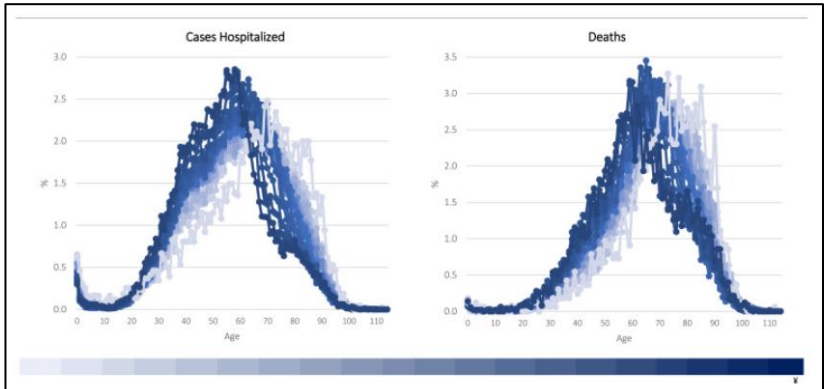
DOTT.SSA ELEONORA TADDEI

AUTORE/RIVISTA	TITOLO	OUTCOME PRINCIPALE	ABSTRACT
Pascarella S et al Journal of Medical Virology https://pubmed.ncbi.nlm.nih.gov/34260088/	SARS-CoV-2 B.1.617 Indian variants: are electrostatic potential changes responsible for a higher transmission rate?	Mutazioni tipiche della variante delta e kappa di SARS-CoV-2 alla base di una modifica del potenziale elettrostatico della porzione legante il recettore della proteina S, che potrebbe spiegare la maggiore affinità e quindi trasmissione.	Lineage B.1.617+, also known as G/452R.V3 and now denoted by WHO with the Greek letters δ and κ, is a recently described SARS-CoV-2 variant under investigation (VUI) firstly identified in October 2020 in India. As of May 2021, three sublineages labelled as B.1.617.1 (κ), B.1.617.2 ((δ) and B.1.617.3 have been already identified, and their potential impact on the current pandemic is being studied. This variant has 13 amino acid changes, three in its spike protein, which are currently of particular concern: E484Q, L452R and P681R. Here we report a major effect of the mutations characterizing this lineage, represented by a marked alteration of the surface electrostatic potential (EP) of the Receptor Binding Domain (RBD) of the spike protein. Enhanced RBD-EP is particularly noticeable in the B.1.617.2 ((δ)) sublineage, which shows multiple replacements of neutral or negatively-charged amino acids with positively-charged amino acids. We here hypothesize that this EP change can favor the interaction between the B.1.617+ RBD and the

			negatively charged ACE2 thus conferring a potential increase in the virus transmission. This article is protected by copyright. All rights reserved. **Figure 2**. Ribbon model of the interface between ACE2 (deepteal) and RBD (orange). Side chains of relevant residues are displayed as stick models and labelled. The two mutations at the RBD sits 417 and 484 have been simultaneously displayed. 
Mendonca Guimaraes R et al The Lancet	Younger Brazilians hit by COVID-19 – What are the implications?	Vaccinando le persone più anziane, saranno i giovani a rimanere a rischio di COVID-19 : le persone a rischio di malattie croniche, talvolta	Once the older adults are mostly vaccinated, we expect that younger adults will gradually occupy more hospital wards and ICU beds. Although we recognize a higher prevalence of comorbidities among older adults8, many chronic diseases, such as hypertension

https://www.sciencedirect.com/science/article/pii/S2667193X21000065?via%3Dihub		non ancora diagnosticate, meritano la maggiore attenzione.	and diabetes, have a high prevalence among those aged 40. Many adults in this age group might suffer from these diseases. However, they do not even have a diagnosis, since the often present an insidious course. They only discover these chronic conditions when hospitalized due to the acute – and severe – disease COVID-19.  Download : Download high-res image (507KB) Download : Download full-size image Figure 1. Proportional distribution of hospitalized cases and deaths due to COVID-19 in hospitalizations according to epidemiological week. Brazil, 2021
Causey K et al The Lancet https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)01337-4/fulltext	Estimating global and regional disruptions to routine childhood vaccine coverage during the COVID-19 pandemic in 2020: a modelling study	Le vaccinazioni infantili hanno subito una battuta d'arresto durante la pandemia di COVID-19.	Background : The COVID-19 pandemic and efforts to reduce SARS-CoV-2 transmission substantially affected health services worldwide. To better understand the impact of the pandemic on childhood routine immunisation, we estimated disruptions in vaccine coverage associated with the pandemic in 2020, globally and by Global Burden of Disease (GBD) super-region. Methods : For this analysis we used a two-step hierarchical random spline modelling approach to estimate global and regional disruptions to routine immunisation using administrative data and reports from electronic immunisation systems, with mobility data as a model input. Paired with estimates of vaccine coverage expected in the absence of COVID-19, which were derived from vaccine

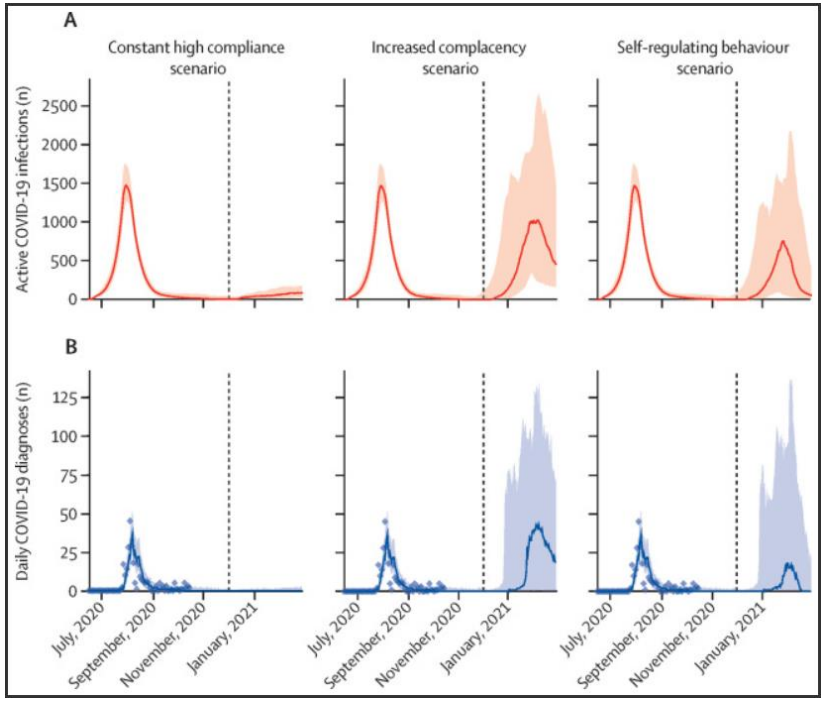
			coverage models from GBD 2020, Release 1 (GBD 2020 R1), we estimated the number of children who missed routinely delivered doses of the third-dose diphtheria-tetanus-pertussis (DTP3) vaccine and first-dose measles-containing vaccine (MCV1) in 2020. Findings : Globally, in 2020, estimated vaccine coverage was 76·7% (95% uncertainty interval 74·3–78·6) for DTP3 and 78·9% (74·8–81·9) for MCV1, representing relative reductions of 7·7% (6·0–10·1) for DTP3 and 7·9% (5·2–11·7) for MCV1, compared to expected doses delivered in the absence of the COVID-19 pandemic. From January to December, 2020, we estimated that 30·0 million (27·6–33·1) children missed doses of DTP3 and 27·2 million (23·4–32·5) children missed MCV1 doses. Compared to expected gaps in coverage for eligible children in 2020, these estimates represented an additional 8·5 million (6·5–11·6) children not routinely vaccinated with DTP3 and an additional 8·9 million (5·7–13·7) children not routinely vaccinated with MCV1 attributable to the COVID-19 pandemic. Globally, monthly disruptions were highest in April, 2020, across all GBD super-regions, with 4·6 million (4·0–5·4) children missing doses of DTP3 and 4·4 million (3·7–5·2) children missing doses of MCV1. Every GBD super-region saw reductions in vaccine coverage in March and April, with the most severe annual impacts in north Africa and the Middle East, south Asia, and Latin America and the Caribbean. We estimated the lowest annual reductions in vaccine delivery in sub-Saharan Africa, where disruptions remained minimal throughout the year. For some super-regions, including southeast Asia, east Asia, and Oceania for both DTP3 and MCV1, the high-income super-region for DTP3, and south Asia for MCV1, estimates suggest that monthly doses were delivered at or above expected levels during the second half of 2020.

			Interpretation : Routine immunisation services faced stark challenges in 2020, with the COVID-19 pandemic causing the most widespread and largest global disruption in recent history. Although the latest coverage trajectories point towards recovery in some regions, a combination of lagging catch-up immunisation services, continued SARS-CoV-2 transmission, and persistent gaps in vaccine coverage before the pandemic still left millions of children under-vaccinated or unvaccinated against preventable diseases at the end of 2020, and these gaps are likely to extend throughout 2021. Strengthening routine immunisation data systems and efforts to target resources and outreach will be essential to minimise the risk of vaccine-preventable disease outbreaks, reach children who missed routine vaccine doses during the pandemic, and accelerate progress towards higher and more equitable vaccination coverage over the next decade.
Woolf K et al The Lancet https://www.thelancet.com/journals/lanepe/article/PIIS2666-7762(21)00157-5/fulltext	Ethnic differences in SARS-CoV-2 vaccine hesitancy in United Kingdom healthcare workers: Results from the UK-REACH prospective nationwide cohort study	L'etnia di provenienza influenza la propensione a sottoporsi a vaccinazione contro SARS-CoV-2 in questo studio di coorte condotto in UK.	Background : In most countries, healthcare workers (HCWs) represent a priority group for vaccination against severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) due to their elevated risk of COVID-19 and potential contribution to nosocomial SARS-CoV-2 transmission. Concerns have been raised that HCWs from ethnic minority groups are more likely to be vaccine hesitant (defined by the World Health Organisation as refusing or delaying a vaccination) than those of White ethnicity, but there are limited data on SARS-CoV-2 vaccine hesitancy and its predictors in UK HCWs. Methods : Nationwide prospective cohort study and qualitative study in a multi-ethnic cohort of clinical and non-clinical UK HCWs. We analysed ethnic differences in SARS-CoV-2 vaccine hesitancy adjusting for demographics, vaccine trust, and perceived risk of

			COVID-19. We explored reasons for hesitancy in qualitative data using a framework analysis. Findings : 11,584 HCWs were included in the cohort analysis. 23% (2704) reported vaccine hesitancy. Compared to White British HCWs (21.3% hesitant), HCWs from Black Caribbean (54.2%), Mixed White and Black Caribbean (38.1%), Black African (34.4%), Chinese (33.1%), Pakistani (30.4%), and White Other (28.7%) ethnic groups were significantly more likely to be hesitant. In adjusted analysis, Black Caribbean (aOR 3.37, 95% CI 2.11 - 5.37), Black African (aOR 2.05, 95% CI 1.49 - 2.82), White Other ethnic groups (aOR 1.48, 95% CI 1.19 - 1.84) were significantly more likely to be hesitant. Other independent predictors of hesitancy were younger age, female sex, higher score on a COVID-19 conspiracy beliefs scale, lower trust in employer, lack of influenza vaccine uptake in the previous season, previous COVID-19, and pregnancy. Qualitative data from 99 participants identified the following contributors to hesitancy: lack of trust in government and employers, safety concerns due to the speed of vaccine development, lack of ethnic diversity in vaccine studies, and confusing and conflicting information. Participants felt uptake in ethnic minority communities might be improved through inclusive communication, involving HCWs in the vaccine rollout, and promoting vaccination through trusted networks. Interpretation : Despite increased risk of COVID-19, HCWs from some ethnic minority groups are more likely to be vaccine hesitant than their White British colleagues. Strategies to build trust and dispel myths surrounding the COVID-19 vaccine in these communities are urgently required. Emphasis should be placed on the safety and benefit of SARS-CoV-2 vaccination in pregnancy and in those with previous COVID-19. Public health communications should be inclusive, non-stigmatising and utilise trusted networks.

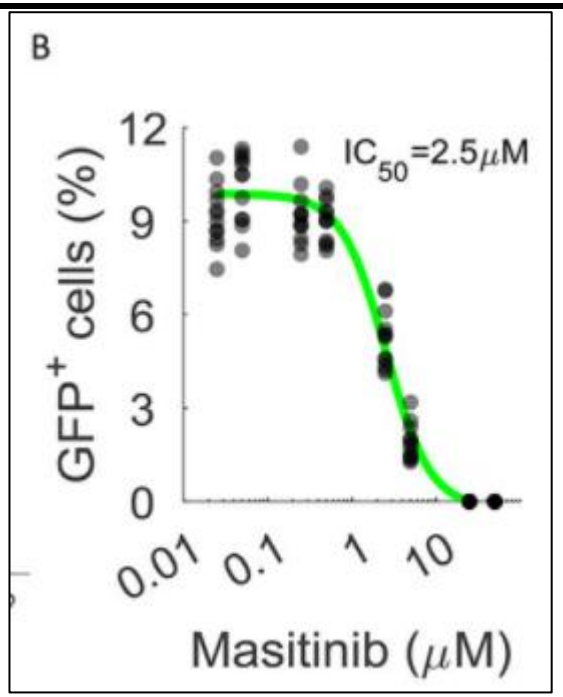
Hiam L et al The Lancet https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)01650-0/fulltext	Will the COVID-19 crisis catalyse universal health reforms?	La crisi legata alla pandemia di COVID-19 potrebbe essere l abse per la diffusione di sistemi sanitari universalistici.	As in previous crises where leaders have needed to rapidly improve the welfare of all their people, enacting UHC makes sense from a health, economic, and political perspective. Now is the time to act to reduce inequalities that have been so instrumental in adverse outcomes in the pandemic so far. Political leaders need to prioritise UHC as countries gradually look ahead to recovery from the COVID-19 pandemic.
Lim WW et al The Lancet https://doi.org/10.1016/S2666-5247(21)00177-4	Comparative immunogenicity of mRNA and inactivated vaccines against COVID-19	Maggiore titolo di IgG e anticorpi neutralizzanti anti SARS-CoV-2 in un piccolo gruppo di operatori sanitari vaccinati con Pfizer rispetto a Sinovac.	We enrolled a cohort of 1442 health-care workers from public and private hospitals and medical clinics in Hong Kong and arranged for longitudinal collection of blood samples after obtaining informed consent. Here we present our preliminary laboratory testing results on 93 participants for whom we have complete data on antibody concentrations before vaccination, after the first dose, and after the second dose. These included 63 participants (55·6% male, median age 37 years, range 26–60 years) who were fully vaccinated with the BNT162b2 vaccine and 30 participants (23·3% male, median age 47 years, range 31–65 years) who received both doses of the inactivated vaccine.
Pham QD et al The Lancet https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(21)00103-0/fulltext	Estimating and mitigating the risk of COVID-19 epidemic rebound associated with reopening of international borders in Vietnam: a modelling study	Modello per stimare che livello di circolazione del virus sarebbe tollerabile per evitare la ripresa dell'epidemia di COVID-19 in Vietnam.	Background Vietnam has emerged as one of the world's leading success stories in responding to COVID-19. After a prolonged period of little to no transmission, there was an outbreak of unknown source in July, 2020, in the Da Nang region, but the outbreak was quickly suppressed. We aimed to use epidemiological, behavioural, demographic, and policy data from the COVID-19 outbreak in Da Nang to calibrate an agent-based model of COVID-19 transmission for Vietnam, and to estimate the risk of future outbreaks associated with reopening of international borders in the country. Methods

			For this modelling study, we used comprehensive data from June 15 to Oct 15, 2020, on testing, COVID-19 cases, and quarantine breaches within an agent-based model of SARS-CoV-2 transmission to model a COVID-19 outbreak in Da Nang in July, 2020. We applied this model to quantify the risk of future outbreaks in Vietnam in the 3 months after the reopening of international borders, under different behavioural scenarios, policy responses (ie, closure of workplaces and schools), and ongoing testing. Findings We estimated that the outbreak in Da Nang between July and August, 2020, resulted in substantial community transmission, and that higher levels of symptomatic testing could have mitigated this transmission. We estimated that the outbreak peaked on Aug 2, 2020, with an estimated 1060 active infections (95% projection interval 890–1280). If the population of Vietnam remains highly compliant with mask-wearing policies, our projections indicate that the epidemic would remain under control even if a small but steady flow of imported infections escaped quarantine into the community. However, if complacency increases and testing rates are relatively low (10% of symptomatic individuals are tested), the epidemic could rebound again, resulting in an estimated 2100 infections (95% projected interval 1050–3610) in 3 months. These outcomes could be mitigated if the behaviour of the general population responds dynamically to increases in locally acquired cases that exceed specific thresholds, but only if testing of symptomatic individuals is also increased. Interpretation The successful response to COVID-19 in Vietnam could be improved even further with higher levels of symptomatic testing. If the previous approaches are used in response to new COVID-19

			outbreaks, epidemic control is possible even in the presence of low levels of imported cases. 
Vasireddy D et al J Clin Med Res https://doi.org/10.14740/jocmr4518	Review of COVID-19 Variants and COVID-19 Vaccine Efficacy: What the Clinician Should Know?	Revisione sulle varianti significative di SARS-CoV-2 e l'efficacia dei vaccini.	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a beta coronavirus that belongs to the Coronaviridae family. SARS-CoV-2 is an enveloped spherical-shaped virus. The ribonucleic acid (RNA) is oriented in a 5'-3'direction which makes it a positive sense RNA virus, and the RNA can be read directly as a messenger RNA. The nonstructural protein 14 (nsp14) has proofreading activity which allows the rate of mutations to stay low. A change in the genetic sequence is called a mutation. Genomes that differ from each other in genetic sequence are called variants. Variants are the result of mutations but differ from each other by one or more mutations. When a phenotypic difference is demonstrated among

			the variants, they are called strains. Viruses constantly change in two different ways, antigenic drift and antigenic shift. SARS-CoV-2 genome is also prone to various mutations that led to antigenic drift resulting in escape from immune recognition. The Center of Disease Control and Prevention (CDC) updates the variant strains in the different classes. The classes are variant of interest, variant of concern and variant of high consequence. The current variants included in the variant of interest by the USA are: B.1.526, B.1.525, and P.2; and those included in the variant of concern by the USA are B.1.1.7, P.1, B.1.351, B.1.427, and B.1.429. The double and triple mutant variants first reported in India have resulted in a massive increase in the number of cases. Emerging variants not only result in increased transmissibility, morbidity and mortality, but also have the ability to evade detection by existing or currently available diagnostic tests, which can potentially delay the diagnosis and treatment, exhibit decreased susceptibility to treatment including antivirals, monoclonal antibodies and convalescent plasma, possess the ability to cause reinfection in previously infected and recovered individuals, and vaccine breakthrough cases in fully vaccinated individuals. Hence, continuation of precautionary measures, genomic surveillance and vaccination plays an important role in the prevention of spread, early identification of variants, prevention of mutations and viral replication, respectively.
Feinmann J BMJ https://www.bmj.com/content/374/bmj.n1787	Eating disorders during the covid-19 pandemic	Aumento della richiesta di valutazioni per disturbi alimentari nel corso della pandemia di COVID-19 in base a quanto presentato	A spike in people seeking treatment for eating disorders during the covid-19 pandemic has revealed their global nature and severity. Jane Feinmann reports from the International Conference on Eating Disorders

Nachega SB et al NEJM https://www.nejm.org/doi/full/10.1056/NEJMp2103313?query=featured_home	Scaling Up Covid-19 Vaccination in Africa — Lessons from the HIV Pandemic	Lezioni dall'HIV per fermare la pandemia di COVID-19.	As we have learned from the HIV pandemic, biomedical advances alone are insufficient to sustainably control a pandemic. Considerations related to health infrastructure, local epidemiology, and responsiveness to local concerns and beliefs are critical for ending the Covid-19 pandemic — not only in Africa, but also globally. Each country will have its own unique challenges in vaccine distribution, which should be addressed with careful planning, including leveraging computational models of prioritization and rollout strategies, and applying methods from implementation science to maximize local impact. Addressing these differences is essential if we are to control current and future pandemics.
Drayman N et al Science https://science.sciencemag.org/content/early/2021/07/19/science.abg5827	Masitinib is a broad coronavirus 3CL inhibitor that blocks replication of SARS-CoV-2	L'inibitore delle tirosin kinasi masitinib inibisce in vitro la proteina 3CLpro di SARS-CoV-2 e determina riduzione della carica virale nel naso e nei polmoni del topo da laboratorio.	There is an urgent need for antiviral agents that treat SARS-CoV-2 infection. We screened a library of 1,900 clinically safe drugs against OC43, a human beta-coronavirus that causes the common cold and evaluated the top hits against SARS-CoV-2. Twenty drugs significantly inhibited replication of both viruses in vitro. Eight of these drugs inhibited the activity of the SARS-CoV-2 main protease, 3CLpro, with the most potent being masitinib, an orally bioavailable tyrosine kinase inhibitor. X-ray crystallography and biochemistry show that masitinib acts as a competitive inhibitor of 3CLpro. Mice infected with SARS-CoV-2 and then treated with masitinib showed >200-fold reduction in viral titers in the lungs and nose, as well as reduced lung inflammation. Masitinib was also effective in vitro against all tested variants of concern (B.1.1.7, B.1.351 and P.1).

			
Caricchio R et al JAMA https://jamanetwork.com/journals/jama/article-abstract/2782185	Effect of Canakinumab vs Placebo on Survival Without Invasive Mechanical Ventilation in Patients Hospitalized With Severe COVID-19	L'anticorpo monoclonale canakinumab diretto contro IL-1 non aumenta la sopravvivenza senza ventilazione meccanica in pazienti ricoverati con COVID-19 grave rispetto al placebo.	Importance Effective treatments for patients with severe COVID-19 are needed. Objective To evaluate the efficacy of canakinumab, an anti–interleukin-1β antibody, in patients hospitalized with severe COVID-19. Design, Setting, and Participants This randomized, double-blind, placebo-controlled phase 3 trial was conducted at 39 hospitals in Europe and the United States. A total of 454 hospitalized patients with COVID-19 pneumonia, hypoxia (not requiring invasive mechanical ventilation [IMV]), and systemic hyperinflammation defined by increased blood concentrations of C-reactive protein or ferritin were enrolled between April 30 and August 17, 2020, with

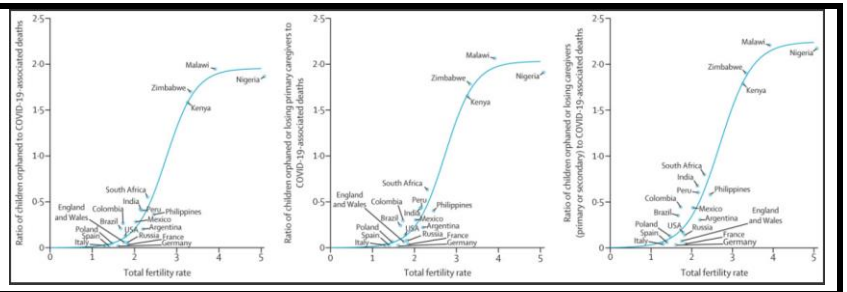
			the last assessment of the primary end point on September 22, 2020. Intervention Patients were randomly assigned 1:1 to receive a single intravenous infusion of canakinumab (450 mg for body weight of 40-<60 kg, 600 mg for 60-80 kg, and 750 mg for >80 kg; n = 227) or placebo (n = 227). Main Outcomes and Measures The primary outcome was survival without IMV from day 3 to day 29. Secondary outcomes were COVID-19–related mortality, measurements of biomarkers of systemic hyperinflammation, and safety evaluations. Results Among 454 patients who were randomized (median age, 59 years; 187 women [41.2%]), 417 (91.9%) completed day 29 of the trial. Between days 3 and 29, 198 of 223 patients (88.8%) survived without requiring IMV in the canakinumab group and 191 of 223 (85.7%) in the placebo group, with a rate difference of 3.1% (95% CI, −3.1% to 9.3%) and an odds ratio of 1.39 (95% CI, 0.76 to 2.54; P = .29). COVID-19–related mortality occurred in 11 of 223 patients (4.9%) in the canakinumab group vs 16 of 222 (7.2%) in the placebo group, with a rate difference of −2.3% (95% CI, −6.7% to 2.2%) and an odds ratio of 0.67 (95% CI, 0.30 to 1.50). Serious adverse events were observed in 36 of 225 patients (16%) treated with canakinumab vs 46 of 223 (20.6%) who received placebo. Conclusions and Relevance Among patients hospitalized with severe COVID-19, treatment with canakinumab, compared with placebo, did not significantly increase the likelihood of survival without IMV at day 29.
Butt AA et al Annals of Internal Medicine	SARS-CoV-2 Vaccine Effectiveness in a High-Risk National Population in a Real-World Setting	Studio caso controllo che mostra un'efficacia del 97% dei vaccini a mRNA nel prevenire l'infezione da SARS-CoV-2 nella vita reale	Background: With the emergency use authorization of multiple vaccines against SARS-CoV-2 infection, data are urgently needed to determine their effectiveness in a real-world setting.

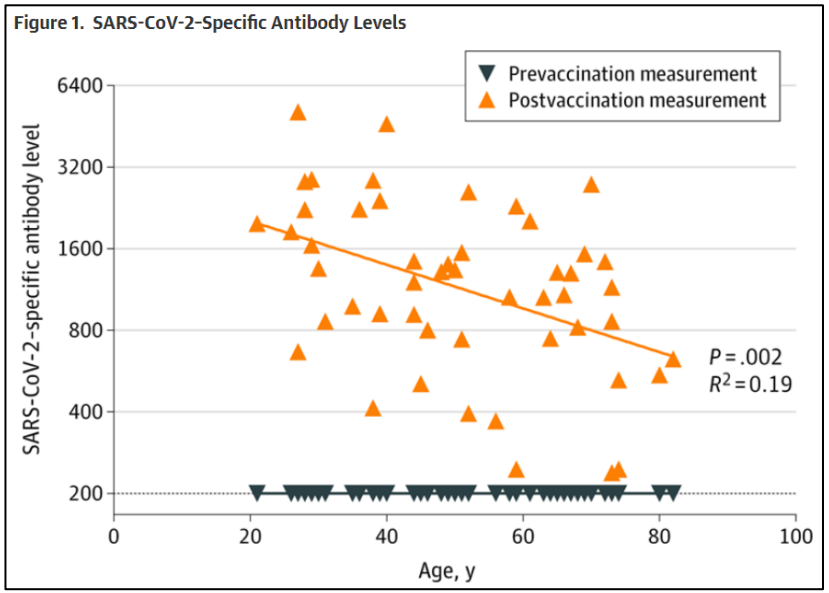
https://www.acpjournals.org/doi/10.7326/M21-1577		in una coorte di oltre 108000 adulti.	Objective: To evaluate the short-term effectiveness of vaccines in preventing SARS-CoV-2 infection. Design: Test-negative case–control study using conditional logistic regression. Setting: U.S. Department of Veterans Affairs health care system. Participants: All veterans who had testing for SARS-CoV-2 infection between 15 December 2020 and 4 March 2021 and no confirmed infection before 15 December 2020. Intervention: SARS-CoV-2 vaccination with either the BNT-162b2 (Pfizer–BioNTech) or mRNA-1273 (Moderna) vaccine as part of routine clinical care. Measurements: Effectiveness of vaccination against confirmed SARS-CoV-2 infection. Results: Among 54 360 persons who tested positive and 54 360 propensity score–matched control participants, the median age was 61 years, 83.6% were male, and 62% were White. Median body mass index was 31 kg/m2 among those who tested positive and 30 kg/m2 among those who tested negative. Among those who tested positive, 9800 (18.0%) had been vaccinated; among those who tested negative, 17 825 (32.8%) had been vaccinated. Overall vaccine effectiveness 7 or more days after the second dose was 97.1% (95% CI, 96.6% to 97.5%). Effectiveness was 96.2% (CI, 95.5% to 96.9%) for the Pfizer–BioNTech BNT-162b2 vaccine and 98.2% (CI, 97.5% to 98.6%) for the Moderna mRNA-1273 vaccine. Effectiveness remained above 95% regardless of age group, sex, race, or presence of comorbidities. Limitations: Predominantly male population; lack of data on disease severity, mortality, and effectiveness by SARS-CoV-2 variants of concern; and short-term follow-up.

			Conclusion: Currently used vaccines against SARS-CoV-2 infection are highly effective in preventing confirmed infection in a high-risk population in a real-world setting.
Brosh-Nissimov T et al CMI https://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(21)00367-0/fulltext	BNT162b2 vaccine breakthrough: clinical characteristics of 152 fully vaccinated hospitalized COVID-19 patients in Israel	Casistica di 152 pazienti ricoverati per COVID-19 per quanto già vaccinati : 40% immunocompromessi.	Objectives The mRNA coronavirus disease 2019 (COVID-19) vaccines have shown high effectiveness in the prevention of symptomatic COVID-19, hospitalization, severe disease and death. Nevertheless, a minority of vaccinated individuals might become infected and experience significant morbidity. Characteristics of vaccine breakthrough infections have not been studied. We sought to portray the population of Israeli patients, who were hospitalized with COVID-19 despite full vaccination. Methods A retrospective multicentre cohort study of 17 hospitals included patients fully vaccinated with Pfizer/BioNTech's BNT162b2 vaccine who developed COVID-19 more than 7 days after the second vaccine dose and required hospitalization. The risk for poor outcome, defined as a composite of mechanical ventilation or death, was assessed. Results A total of 152 patients were included, accounting for half of hospitalized fully vaccinated patients in Israel. Poor outcome was noted in 38 patients and mortality rate reached 22% (34/152). Notably, the cohort was characterized by a high rate of co-morbidities predisposing to severe COVID-19, including hypertension (108; 71%), diabetes (73; 48%), congestive heart failure (41; 27%), chronic kidney and lung diseases (37; 24% each), dementia (29; 19%) and cancer (36; 24%), and only six (4%) had no co-morbidities. Sixty (40%) of the patients were

			immunocompromised. Higher viral load was associated with a significant risk for poor outcome. Risk also appeared higher in patients receiving anti-CD20 treatment and in patients with low titres of anti-Spike IgG, but these differences did not reach statistical significance. Conclusions We found that severe COVID-19 infection, associated with a high mortality rate, might develop in a minority of fully vaccinated individuals with multiple co-morbidities. Our patients had a higher rate of co-morbidities and immunosuppression compared with previously reported non-vaccinated hospitalized individuals with COVID-19. Further characterization of this vulnerable population may help to develop guidance to augment their protection, either by continued social distancing, or by additional active or passive vaccinations.
Hillis SD et al The Lancet https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)01253-8/fulltext	Global minimum estimates of children affected by COVID-19-associated orphanhood and deaths of caregivers: a modelling study	Le morti per COVID-19 portano con sé anche il problema dell'abbandono di minori che perdono i genitori o tutori.	Background The COVID-19 pandemic priorities have focused on prevention, detection, and response. Beyond morbidity and mortality, pandemics carry secondary impacts, such as children orphaned or bereft of their caregivers. Such children often face adverse consequences, including poverty, abuse, and institutionalisation. We provide estimates for the magnitude of this problem resulting from COVID-19 and describe the need for resource allocation. Methods We used mortality and fertility data to model minimum estimates and rates of COVID-19-associated deaths of primary or secondary caregivers for children younger than 18 years in 21 countries. We considered parents and custodial grandparents as primary caregivers, and co-residing grandparents or older kin (aged 60–84 years) as secondary caregivers. To avoid overcounting, we adjusted

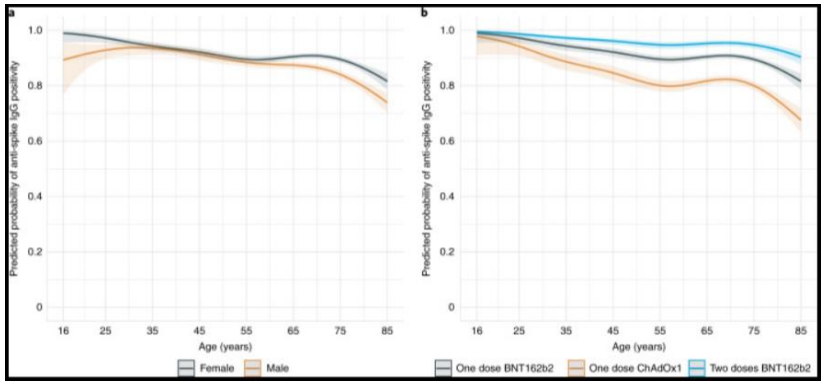
			for possible clustering of deaths using an estimated secondary attack rate and age-specific infection–fatality ratios for SARS-CoV-2. We used these estimates to model global extrapolations for the number of children who have experienced COVID-19-associated deaths of primary and secondary caregivers. Findings Globally, from March 1, 2020, to April 30, 2021, we estimate 1 134 000 children (95% credible interval 884 000–1 185 000) experienced the death of primary caregivers, including at least one parent or custodial grandparent. 1 562 000 children (1 299 000–1 683 000) experienced the death of at least one primary or secondary caregiver. Countries in our study set with primary caregiver death rates of at least one per 1000 children included Peru (10·2 per 1000 children), South Africa (5·1), Mexico (3·5), Brazil (2·4), Colombia (2·3), Iran (1·7), the USA (1·5), Argentina (1·1), and Russia (1·0). Numbers of children orphaned exceeded numbers of deaths among those aged 15–50 years. Between two and five times more children had deceased fathers than deceased mothers. Interpretation Orphanhood and caregiver deaths are a hidden pandemic resulting from COVID-19-associated deaths. Accelerating equitable vaccine delivery is key to prevention. Psychosocial and economic support can help families to nurture children bereft of caregivers and help to ensure that institutionalisation is avoided. These data show the need for an additional pillar of our response: prevent, detect, respond, and care for children.

			
Harrison SL et al European Heart Journal doi:10.1093/ehjqcco/qcab029	Cardiovascular risk factors, cardiovascular disease, and COVID-19: an umbrella review of systematic reviews	Fattori di rischio modificabili associati ad outcome avverso di COVID-19.	Aims To consolidate evidence to determine (i) the association between cardiovascular risk factors and health outcomes with coronavirus 2019 (COVID-19); and (ii) the impact of COVID-19 on cardiovascular health. Methods and results An umbrella review of systematic reviews was conducted. Fourteen medical databases and pre-print servers were searched from 1 January 2020 to 5 November 2020. The review focused on reviews rated as moderate or high- quality using the AMSTAR 2 tool. Eighty-four reviews were identified; 31 reviews were assessed as moderate quality and one was high-quality. The following risk factors were associated with higher mortality and severe COVID-19: renal disease [odds ratio (OR) (95% confidence interval) for mortality 3.07 (2.43–3.88)], diabetes mellitus [OR 2.09 (1.80–2.42)], hypertension [OR 2.50 (2.02–3.11)], smoking history [risk ratio (RR) 1.26 (1.20–1.32)],cerebrovascular dise ase [RR 2.75 (1.54–4.89)], and cardiovascular disease [OR 2.65 (1.86–3.78)]. Liver disease was associated with higher odds of mortality [OR 2.81 (1.31–6.01)], but not severe COVID-19. Current smoking was associated with a higher risk of severe COVID-19 [RR 1.80 (1.14–2.85)], but not mortality. Obesity associated with higher odds of mortality [OR 2.18 (1.10–4.34)], but there was an absence of evidence for severe COVID-19. In patients hospitalized with COVID-19, the following incident cardiovascular complications were

			identified: acute heart failure (2%), myocardial infarction (4%), deep vein thrombosis (7%), myocardial injury (10%), angina (10%), arrhythmias (18%), pulmonary embolism (19%), and venous thromboembolism (25%). Conclusion Many of the risk factors identified as associated with adverse outcomes with COVID-19 are potentially modifiable. Primary and secondary prevention strategies that target cardiovascular risk factors may improve outcomes for people following COVID-19.
Bates TA et al JAMA https://jamanetwork.com/journals/jama/fullarticle/2782428?guestAccessKey=6cc2b610-9b8a-4cb3-ae41-1b7240221e09&utm_source=silverchair&utm_medium=email&utm_campaign=article_alert-jama&utm_content=olf&utm_term=072121	Age-Dependent Neutralization of SARS-CoV-2 and P.1 Variant by Vaccine Immune Serum Samples	Titolo anticorpale contro SARS-CoV-2 dopo vaccinazione con Pfizer negativamente associato all'età del vaccinato.	Vaccination with 2 doses of the BNT162b2 vaccine (Pfizer-BioNTech) reportedly provides 95% protection from COVID-19.1 However, patient age is known to contribute to the risk of COVID-19 incidence and severity.2 We examined the relationship between age and neutralizing antibody titers against the early SARS-CoV-2 USA-WA1/2020 strain and the P.1 variant of concern after 2 doses of the BNT162b2 vaccine.  Figure 1. SARS-CoV-2-Specific Antibody Levels Prevaccination measurement Postvaccination measurement SARS-CoV-2-specific antibody level 6400 3200 1600 800 400 200 0 20 40 60 80 100 Age, y P = .002 R^2 = 0.19

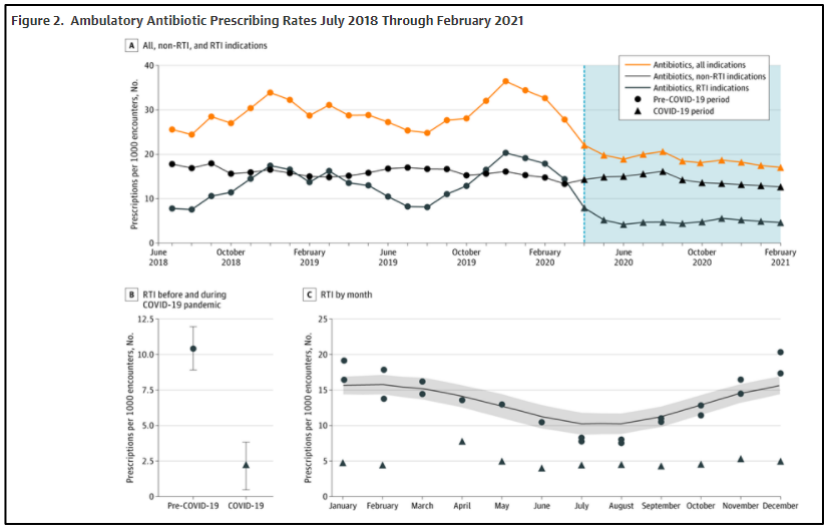
Lopez Bernal J et al NEJM https://doi.org/10.1056/NEJMoa2108891	Effectiveness of Covid-19 Vaccines against the B.1.617.2 (Delta) Variant	Superiorità di Pfizer rispetto ad Astrazeneca nell'efficacia del prevenirel'infezione da variante delta di SARS-COV-2.	BACKGROUND The B.1.617.2 (delta) variant of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus that causes coronavirus disease 2019 (Covid-19), has contributed to a surge in cases in India and has now been detected across the globe, including a notable increase in cases in the United Kingdom. The effectiveness of the BNT162b2 and ChAdOx1 nCoV-19 vaccines against this variant has been unclear. METHODS We used a test-negative case–control design to estimate the effectiveness of vaccination against symptomatic disease caused by the delta variant or the predominant strain (B.1.1.7, or alpha variant) over the period that the delta variant began circulating. Variants were identified with the use of sequencing and on the basis of the spike (S) gene status. Data on all symptomatic sequenced cases of Covid-19 in England were used to estimate the proportion of cases with either variant according to the patients' vaccination status. RESULTS Effectiveness after one dose of vaccine (BNT162b2 or ChAdOx1 nCoV-19) was notably lower among persons with the delta variant (30.7%; 95% confidence interval [CI], 25.2 to 35.7) than among those with the alpha variant (48.7%; 95% CI, 45.5 to 51.7); the results were similar for both vaccines. With the BNT162b2 vaccine, the effectiveness of two doses was 93.7% (95% CI, 91.6 to 95.3) among persons with the alpha variant and 88.0% (95% CI, 85.3 to 90.1) among those with the delta variant. With the ChAdOx1 nCoV-19 vaccine, the effectiveness of two doses was 74.5% (95% CI, 68.4 to 79.4) among persons with the alpha variant and 67.0% (95% CI, 61.3 to 71.8) among those with the delta variant.

			CONCLUSIONS Only modest differences in vaccine effectiveness were noted with the delta variant as compared with the alpha variant after the receipt of two vaccine doses. Absolute differences in vaccine effectiveness were more marked after the receipt of the first dose. This finding would support efforts to maximize vaccine uptake with two doses among vulnerable populations.
Chu VT et al NEJM https://doi.org/10.1056/NEJMc2031915	Household Transmission of SARS-CoV-2 from Children and Adolescents.	Rischio di contagio domestico di SARS-CoV-2 legato a bambini e adolescenti.	Of 526 household contacts of these index patients, 377 (72%) were tested for SARS-CoV-2, and 46 (12%) of those who were tested had positive results. An additional 2 secondary cases of infection were identified according to clinical and epidemiologic criteria.4 A total of 38 of the 48 secondary cases (79%) occurred in households where the index patient had become symptomatic after returning home from camp; the median serial interval (i.e., the interval between the onset of symptoms in the index patient and the onset of symptoms in the household contacts infected by that patient) was 5.0 days (95% confidence interval [CI], 4.0 to 6.5). Transmission occurred in 35 of 194 households (18%); in these households, the secondary attack rate was 45% (95% CI, 36 to 54) (48 of 107 households). Among the household contacts who became infected and who were at least 18 years of age, 4 of 41 (10%) were hospitalized (length of hospital stay, 5 to 11 days); none of the 7 persons with a secondary case of infection who were younger than 18 years were hospitalized.
Wei J et al Nature https://doi.org/10.1038/s41564-021-00947-3	Antibody responses to SARS-CoV-2 vaccines in 45,965 adults from the general population of the United Kingdom	Minore sieroconversione dopo vaccino contro SARS-CoV-2 nelle persone di età superiore a 60 anni rispetto ai più giovani.	We report that in a cohort of 45,965 adults, who were receiving either the ChAdOx1 or the BNT162b2 SARS-CoV-2 vaccines, in those who had no prior infection with SARS-CoV-2, seroconversion rates and quantitative antibody levels after a single dose were lower in older individuals, especially in those aged >60 years. Two vaccine doses achieved high responses across all ages. Antibody levels

			increased more slowly and to lower levels with a single dose of ChAdOx1 compared with a single dose of BNT162b2, but waned following a single dose of BNT162b2 in older individuals. In descriptive latent class models, we identified four responder subgroups, including a 'low responder' group that more commonly consisted of people aged >75 years, males and individuals with long-term health conditions. Given our findings, we propose that available vaccines should be prioritized for those not previously infected and that second doses should be prioritized for individuals aged >60 years. Further data are needed to better understand the extent to which quantitative antibody responses are associated with vaccine-mediated protection. 
Sickbert-Bennett EE et al JAMA https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2778913	Fitted Filtration Efficiency of Double Masking During the COVID-19 Pandemic	Usare una doppia mascherina (chirurgica + filtrante) migliora l'efficienza di filtro, non perché si aggiunga uno strato ma perché migliora l'aderenza dei bordi della mascherina al viso. Infatti la chirurgica andrebbe sotto.	Although global vaccination efforts against SARS-CoV-2 are underway, the public is urged to continue using face masks as a primary intervention to control transmission. Recently, US public health officials have also encouraged doubling masks as a strategy to counter elevated transmission associated with infectious SARS-CoV-2 variants. US Centers for Disease Control and Prevention investigators reported that doubling masks increased effectiveness, but their assessment was limited in type and combinations of masks tested, as well as by the use of head forms rather than humans. To

			address these limitations, this study compared the fitted filtration efficiency (FFE) of commonly available masks worn singly, doubled, or in combinations. **Table. Fitted Filtration Efficiency (FFE) of Face Masks Tested in 1 Female and 2 Male Volunteers[a]** **Table. Fitted Filtration Efficiency (FFE) of Face Masks Tested in 1 Female and 2 Male Volunteers[a]** FFE, mean (SD), % Face mask / Single mask / Double mask / Difference Procedure ear-loop masks Medline 53 (8) 68 (16) 14 (15) Henry 62 (11) 74 (4) 12 (7) Shine Ya 43 (2) 55 (10) 12 (8) Intco 61 (13) 66 (9) 4 (12) Cloth masks Hanes cotton ear-loop mask 44 (12) 57 (14) 14 (4) Procedure mask worn over NA 59 (18) 16 (10) Procedure mask worn under NA 66 (5) 23 (12) Cotton bandana 44 (4) NA NA Procedure mask worn over NA 55 (10) 11 (8) Procedure mask worn under NA 77 (10) 33 (10) Polyester gaiter 41 (12) NA NA Procedure mask worn over NA 60 (14) 19 (7) Procedure mask worn under NA 81 (6) 40 (6) Abbreviation: NA, not applicable. [a] The FFE percentage corresponds to 100 × (1 − behind the mask particle concentration/ambient particle concentration). Overall FFE percentage was calculated across the length of the testing protocol. For all mask-doubling comparisons, the absolute improvement was calculated by subtracting the FFE of the single control mask from the combination doubled mask.
Ghai RR et al Emerging Infectious Diseases https://wwwnc.cdc.gov/eid/article/27/4/20-3945_article	Animal Reservoirs and Hosts for Emerging Alphacoronaviruses and Betacoronaviruses	Revisione delle caratteristiche, le origini e i reservoir dei Coronavirus conosciuti prima di SARS-CoV-2.	The ongoing global pandemic caused by coronavirus disease has once again demonstrated the role of the family Coronaviridae in causing human disease outbreaks. Because severe acute respiratory syndrome coronavirus 2 was first detected in December 2019, information on its tropism, host range, and clinical manifestations in animals is limited. Given the limited information, data from other coronaviruses might be useful for informing scientific inquiry, risk assessment, and decision-making. We reviewed endemic and emerging infections of alphacoronaviruses and betacoronaviruses in wildlife, livestock, and companion animals and provide information on the receptor use, known hosts, and clinical signs associated with each host for 15 coronaviruses detected in humans and animals. This information can be used to guide implementation of a One Health approach that involves human health, animal health, environmental, and other relevant partners in developing strategies for preparedness, response, and control to current and future coronavirus disease threats.

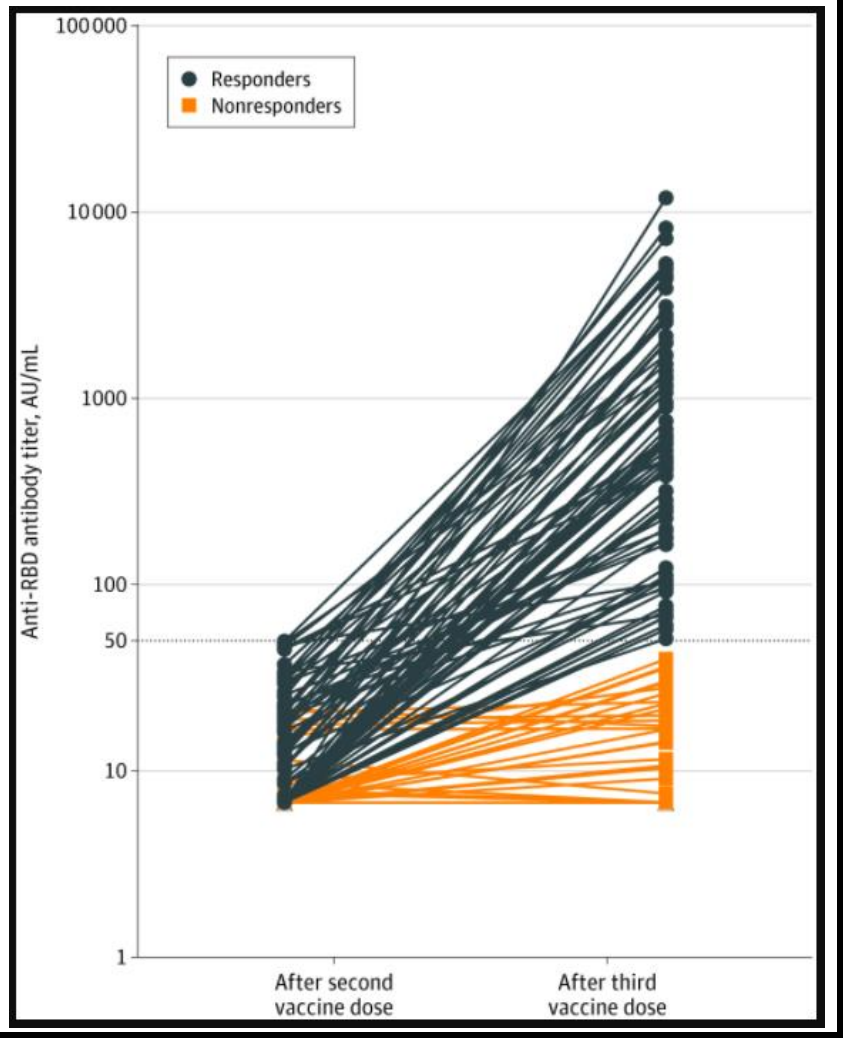
Bloom JD bioRXiv - preprint https://www.biorxiv.org/content/10.1101/2021.06.18.449051v1	Recovery of deleted deep sequencing data sheds more light on the early Wuhan SARS-CoV-2 epidemic	Sequenze di SARS-COV-2 risalenti all'inizio della pandemia a Wuhan che si discostano parzialmente da quelle più studiate e considerate originarie.	The origin and early spread of SARS-CoV-2 remains shrouded in mystery. Here I identify a data set containing SARS-CoV-2 sequences from early in the Wuhan epidemic that has been deleted from the NIH's Sequence Read Archive. I recover the deleted files from the Google Cloud, and reconstruct partial sequences of 13 early epidemic viruses. Phylogenetic analysis of these sequences in the context of carefully annotated existing data suggests that the Huanan Seafood Market sequences that are the focus of the joint WHO-China report are not fully representative of the viruses in Wuhan early in the epidemic. Instead, the progenitor of known SARS-CoV-2 sequences likely contained three mutations relative to the market viruses that made it more similar to SARS-CoV-2's bat coronavirus relatives.
Ministero della Salute israelliano Comunicato stampa https://www.gov.il/en/departments/news/21062021-02	The Ministry of Health Recommends Having Teens 12-15 Years of Age Vaccinated	Il Ministero della salute israeliano raccomanda la vaccinazione nei ragazzi di età 12-15 anni.	Following the increase in COVID-19 morbidity among children in recent days, and in light of the recent outbreaks in schools in Modi'in, Binyamina, and other places as a result of variants to the virus, an emergency meeting was held last night in the Ministry of Health between a team of experts and the Epidemic Response Team on the subject of extending vaccines to adolescents ages 12-15. During the discussion, the results of the vaccination of adolescents in Israel so far was discussed, as well as the situation in the United States, were 2.5 million adolescents have been vaccinated so far without any concerning side effects. This is following research performed in Israel which showed very rare and side effects which were not severe.
Lepak AJ et al JAMA	Association of Changes in Seasonal Respiratory Virus Activity and Ambulatory Antibiotic Prescriptions With the COVID-19 Pandemic	Riduzione delle infezioni respiratorie virali e della prescrizione di antibiotici a domicilio « grazie » alla pandemia di SARS-CoV-2.	The COVID-19 pandemic led to numerous measures to mitigate the spread of SARS-CoV-2, including cancellations of gatherings, closure of businesses and schools, social distancing, wearing face masks, and other hygiene measures.1 These may have unintended positive associations with reducing other respiratory infections. As

https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2781312			antibiotics are frequently inappropriately prescribed for viral respiratory diseases,2 we hypothesized that a decreased respiratory virus incidence would be associated with reduced ambulatory antibiotic orders. 
Ito K et al Eurosurveillance https://doi.org/10.2807/1560-7917.ES.2021.26.27.2100570	Predicted dominance of variant Delta of SARS-CoV-2 before Tokyo Olympic Games, Japan, July 2021	Diffusione prevista della variante Delta di SARS-CoV-2 in Giappone in occasione dei Giochi Olimpici.	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the causative agent of coronavirus disease (COVID-19), has undergone adaptive evolution since its emergence in the human population in 2019. On 31 May 2021, the World Health Organization (WHO) has designated four variants of SARS-CoV-2 as variants of concern (VOC)— Alpha, Beta, Gamma, and Delta corresponding to the Phylogenetic Assignment of Named Global Outbreak (Pango) lineage designation B.1.1.7, B.1.351, P.1 and B.1.617.2, respectively. Multiple SARS-CoV-2 variants are circulating in Japan and because of the high transmissibility of the VOC, the replacement of locally circulating strains by Alpha and Delta VOC poses a serious public health threat in Japan. Here we used a renewal-equation-based model to describe the adaptive evolution among multiple variants,

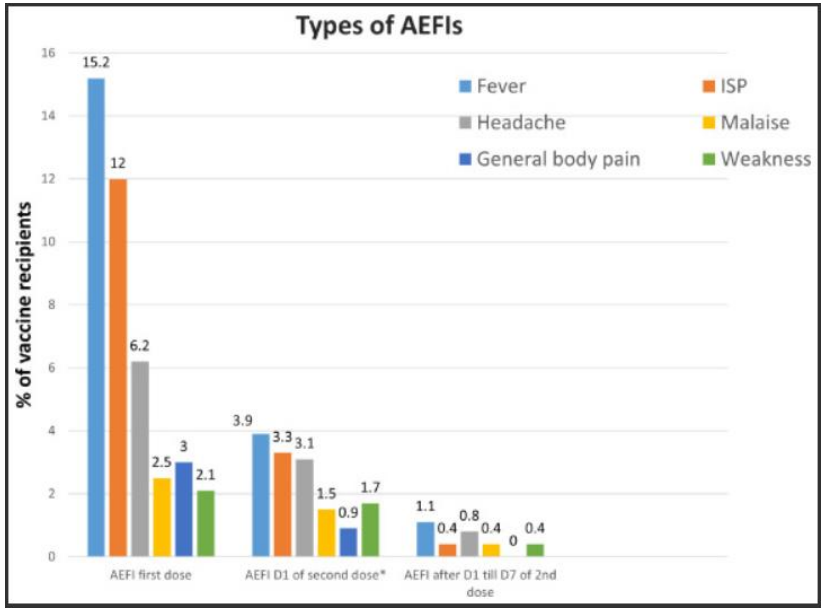
			i.e., R.1, Alpha and Delta variants in addition to ordinary variant, in the country to inform risk-assessment ahead of the Summer Olympic Games in Tokyo starting on 23 July 2021.
Kooistra EJ et al Critical Care Medicine https://journals.lww.com/ccmjournal/Abstract/9000/Body_Mass_Index_and_Mortality_in_Coronavirus.95144.aspx	Body Mass Index and Mortality in Coronavirus Disease 2019 and Other Diseases A Cohort Study in 35,506 ICU Patients	L'obesità è associata a maggiore mortalità nei pazienti ricoverati in Rianimazione con COVID-19, al contrario di quanto avviene per gli altri malati critici.	Objectives: Obesity is a risk factor for severe coronavirus disease 2019 and might play a role in its pathophysiology. It is unknown whether body mass index is related to clinical outcome following ICU admission, as observed in various other categories of critically ill patients. We investigated the relationship between body mass index and inhospital mortality in critically ill coronavirus disease 2019 patients and in cohorts of ICU patients with non-severe acute respiratory syndrome coronavirus 2 viral pneumonia, bacterial pneumonia, and multiple trauma. Design: Multicenter observational cohort study. Setting: Eighty-two Dutch ICUs participating in the Dutch National Intensive Care Evaluation quality registry. Patients: Thirty-five–thousand five-hundred six critically ill patients. Interventions: None. Measurements and Main Results: Patient characteristics and clinical outcomes were compared between four cohorts (coronavirus disease 2019, nonsevere acute respiratory syndrome coronavirus 2 viral pneumonia, bacterial pneumonia, and multiple trauma patients) and between body mass index categories within cohorts. Adjusted analyses of the relationship between body mass index and inhospital mortality within each cohort were performed using multivariable logistic regression. Coronavirus disease 2019 patients were more likely male, had a higher body mass index, lower PaO2/FIO2 ratio, and were more likely mechanically ventilated during the first 24 hours in the ICU compared with the other cohorts. Coronavirus disease 2019 patients had longer ICU and

			hospital length of stay, and higher inhospital mortality. Odds ratios for inhospital mortality for patients with body mass index greater than or equal to 35 kg/m2 compared with normal weight in the coronavirus disease 2019, nonsevere acute respiratory syndrome coronavirus 2 viral pneumonia, bacterial pneumonia, and trauma cohorts were 1.15 (0.79–1.67), 0.64 (0.43–0.95), 0.73 (0.61–0.87), and 0.81 (0.57–1.15), respectively. Conclusions: The obesity paradox, which is the inverse association between body mass index and mortality in critically ill patients, is not present in ICU patients with coronavirus disease 2019–related respiratory failure, in contrast to nonsevere acute respiratory syndrome coronavirus 2 viral and bacterial respiratory infections.
Saxena S et al BMJ https://www.bmj.com/content/374/bmj.n1866	Should the UK vaccinate children and adolescents against covid-19?	Discussione sull'opportunità di vaccinare contro SARS-CoV-2 i ragazzi di età 12-17 anni nel Regno Unito.	The UK is an outlier in holding off vaccinating healthy 12-17 year olds. The UK Joint Committee on Vaccination and Immunisation (JCVI) has now recommended covid-19 vaccination for select groups of adolescents. Those newly eligible comprise 12-15 year olds with underlying conditions that may place them at increased risk of serious covid-19 infection, 17 year olds who are within three months of turning 18, and adolescents living with someone who is immunosuppressed.1 Young people aged 16 to 17 who are at higher risk of serious covid-19 were already eligible.
Payet C et al Critical Care Medicine https://journals.lww.com/ccmjournal/Abstract/9000/Mortality_Among_Noncoronavirus_Disease_2019.95145.aspx	Mortality Among Noncoronavirus Disease 2019 Critically Ill Patients Attributable to the Pandemic in France	In presenza di un numero elevato di ricoveri concomitanti per SARS-CoV-2, i malati critici ricoverati per altri motivi hanno mortalità maggiore rispetto all'anno precedente.	Objectives: We investigated whether the risk of death among noncoronavirus disease 2019 critically ill patients increased when numerous coronavirus disease 2019 cases were admitted concomitantly to the same hospital units. Design: We performed a nationwide observational study based on the medical information system from all public and private hospitals in France.

			Setting: Information pertaining to every adult admitted to ICUs or intermediate care units from 641 hospitals between January 1, 2020, and June 30, 2020 was analyzed. Patients: A total of 454,502 patients (428,687 noncoronavirus disease 2019 and 25,815 coronavirus disease 2019 patients) were included. Interventions: For each noncoronavirus disease 2019 patient, pandemic exposure during their stay was calculated per day using the proportion of coronavirus disease 2019 patients among all patients treated in ICU. Measurements and Main Results: We computed a multivariable logistic regression model to estimate the influence of pandemic exposure (low, moderate, and high exposure) on noncoronavirus disease 2019 patient mortality during ICU stay. We adjusted on patient and hospital confounders. The risk of death among noncoronavirus disease 2019 critically ill patients increased in case of moderate (adjusted odds ratio, 1.12; 95% CI, 1.05–1.19; $p < 0.001$) and high pandemic exposures (1.52; 95% CI, 1.33–1.74; $p < 0.001$). Conclusions: In hospital units with moderate or high levels of coronavirus disease 2019 critically ill patients, noncoronavirus disease deaths were at higher levels.
Benotmane I et al JAMA https://jamanetwork.com/journals/jama/fullarticle/2782538	Antibody Response After a Third Dose of the mRNA-1273 SARS-CoV-2 Vaccine in Kidney Transplant Recipients With Minimal Serologic Response to 2 Doses	Il 49% dei trapiantati di rene sottoposti a una terza dose di vaccino a mRNA contro SARS-CoV-2 ha presentato una risposta anticorpale, assente dopo la seconda dose.	Studies have reported low seroconversion rates (58% after the second dose) in solid organ transplant recipients who received a messenger RNA (mRNA) SARS-CoV-2 vaccine. Based on this evidence, the French National Authority for Health issued a recommendation in April 2021 to administer a third vaccine dose in immunosuppressed patients who did not respond after 2 doses. We examined the antibody responses of kidney transplant recipients

			who did not respond to 2 doses and received a third dose (100 µg) of the mRNA-1273 vaccine (Moderna). 

Kaur U et al EClinicalMedicine https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(21)00318-7/fulltext	A prospective observational safety study on ChAdOx1 nCoV-19 corona virus vaccine (recombinant) use in healthcare workers- first results from India	Sicurezza del vaccino a vettore adenovirale COVISHIELD su 804 operatori sanitari in India.	Background We provide the first post-approval safety analysis of COVISHIELD in health care workers (HCWs) in northern India. Methods This continuing prospective observational study (February 2021 to May 2022) enrolled participants ≥18 years receiving COVISHIELD vaccination. Primary outcome was safety and reactogenicity. Categories (FDA toxicity grading) and outcomes of adverse events following immunization (AEFIs) were recorded, causality assessment performed, and risk factors analysed. Findings We present the results of an interim analysis of 804 participants. AEFIs following first dose were reported in 321 (40%; systemic involvement in 248). Among 730 participants who completed a 7-day follow-up post second dose, AEFIs occurred in 115 (15.7%; systemic in 99). Majority of AEFIs were mild-moderate and resolved spontaneously. Serious AEFIs, leading to hospitalization was noticed in 1 (0.1%) participant with suspicion of immunization stress related response (ISRR). AEFIs of grade 3 severity (FDA) were recorded in 4 participants (0.5%). No deaths were recorded. Regression analysis showed increased risk of AEFIs in younger individuals, a two times higher odds in females, those with hypertension or with history of allergy; and three times higher odds in individuals with hypothyroidism. Interpretation COVISHIELD carries an overall favourable safety profile with AEFI rates much less than reported for other adenoviral vaccines. Females, those with hypertension, individuals with history of allergy and hypothyroidism may need watchful vaccine administration. This being an interim analysis and based on healthcare workers who may

			not reflect the general population demographics, larger inclusive studies are warranted for confirming the findings. 
Joudrey PJ et al JAMA https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2782211	Methadone Access for Opioid Use Disorder During the COVID-19 Pandemic Within the United States and Canada	Ridotto accesso alla terapia sostitutiva metadonica durante la pandemia di COVID-10 in USA e Canada.	Importance Methadone access may be uniquely vulnerable to disruption during COVID-19, and even short delays in access are associated with decreased medication initiation and increased illicit opioid use and overdose death. Relative to Canada, US methadone provision is more restricted and limited to specialized opioid treatment programs. Objective To compare timely access to methadone initiation in the US and Canada during COVID-19. Design, Setting, and Participants This cross-sectional study was conducted from May to June 2020. Participating clinics provided methadone for opioid use disorder in 14 US states and territories and 3 Canadian provinces with the highest opioid overdose death

			rates. Statistical analysis was performed from July 2020 to January 2021. Exposures Nation and type of health insurance (US Medicaid and US self-pay vs Canadian provincial). Main Outcomes and Measures Proportion of clinics accepting new patients and days to first appointment. Results Among 268 of 298 US clinics contacted as a patient with Medicaid (90%), 271 of 301 US clinics contacted as a self-pay patient (90%), and 237 of 288 Canadian clinics contacted as a patient with provincial insurance (82%), new patients were accepted for methadone at 231 clinics (86%) during US Medicaid contacts, 230 clinics (85%) during US self-pay contacts, and at 210 clinics (89%) during Canadian contacts. Among clinics not accepting new patients, at least 44% of 27 clinics reported that the COVID-19 pandemic was the reason. The mean wait for first appointment was greater among US Medicaid contacts (3.5 days [95% CI, 2.9-4.2 days]) and US self-pay contacts (4.1 days [95% CI, 3.4-4.8 days]) than Canadian contacts (1.9 days [95% CI, 1.7-2.1 days]) ($P < .001$). Open-access model (walk-in hours for new patients without an appointment) utilization was reported by 57 Medicaid (30%), 57 self-pay (30%), and 115 Canadian (59%) contacts offering an appointment. Conclusions and Relevance In this cross-sectional study of 2 nations, more than 1 in 10 methadone clinics were not accepting new patients. Canadian clinics offered more timely methadone access than US opioid treatment programs. These results suggest that the methadone access shortage was exacerbated by COVID-19 and that changes to the US opioid treatment program model are needed to improve the timeliness of access. Increased open-access model adoption may increase timely access.

Robinson KA et al JAMA https://jamanetwork.com/journals/jamaoncology/fullarticle/2782036	Incidence of Axillary Adenopathy in Breast Imaging After COVID-19 Vaccination	Nell'ambito dello screening del carcinoma mammario va tenuto conto di una recente vaccinazione contro SARS-CoV-2, cui può fare seguito la comparsa di linfoadenomegalia ascellare a risoluzione spontanea.	Vaccine-induced adenopathy after COVID-19 vaccination in breast imaging has received significant media attention, with evolving literary correspondence on management. Patients' self-report of axillary swelling following COVID-19 vaccination was reported as high as 16%.1 The National Comprehensive Cancer Network and Society of Breast Imaging recommended to consider scheduling screening breast imaging 4 to 6 weeks after the second COVID-19 vaccination dose when possible.2 However, the actual incidence, timing, and characteristics of mammographic axillary adenopathy following COVID-19 vaccination remain uncertain.
Kuhen BM et al JAMA https://jamanetwork.com/journals/jama/fullarticle/2782176	Antibiotic Use in UK's COVID-19 Patients Often Unnecessary	Commento a due studi che riportano una elevata (fino a 85%) proporzione di pazienti ricoverati con COVID-19 e trattati con antibiotici, a fronte di una incidenza di infezioni batteriche inferiore al 10%, per lo più nosocomiali.	Although few patients hospitalized with COVID-19 have a co-occurring bacterial infection, a recent study showed that a large proportion treated in UK hospitals receive antibiotics that often aren't necessary.
Wei EK et al JAMA https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2782429	Nine Lessons Learned From the COVID-19 Pandemic for Improving Hospital Care and Health Care Delivery	Lezioni dalla pandemia di COVID-19 da integrare nella futura gestione dell'assistenza ospedaliera in circostanze « normali » ed emergenziali.	New York City (NYC) was the epicenter of the COVID-19 pandemic in the US in March 2020. A dense city of only 302 square miles, it has had 33 359 deaths and 109 192 hospitalizations due to COVID-19 as of June 15, 2021.1 In guiding NYC Health + Hospitals, the largest municipal hospital system in the US, through the pandemic, we have learned a number of lessons. Although there is much to debate about the national public health response to COVID-19,2 we focus on the lessons learned through COVID-19 that we believe have applicability for improving hospital care in the future. The growth of telehealth has been covered elsewhere.3,4 We present 9 other lessons for improving hospital care and health care delivery.