CLINICAL PEARL

- Messenger RNA (mRNA) COVID-19 vaccines have been shown to be effective in preventing symptomatic SARS-CoV-2 infection in randomized placebo-controlled Phase III trials. Reports from hospitals in Jerusalem, California and Texas offer reassuring evidence that infections are extremely rare among health care workers after they have been fully vaccinated against Covid-19, even during community outbreaks of SARS-CoV-2. Correspondences from the three medical centers published online in the New England Journal of Medicine confirm the real-world efficacy of the messenger RNA vaccines for protecting health care workers caring for patients hospitalized with Covid-19.

  o A report from Israel’s Hadassah Hebrew University Medical Center in Jerusalem, showed a marked decline in SARS-CoV-2 infections among the 6,680 employed health care workers after a vaccination program was initiated at the two-campus medical center. Routine screening revealed that around 10% of hospital staffers (689 of 6,680 people) tested positive for SARS-CoV-2 from the beginning of the Covid-19 outbreak through Jan. 31, 2021, with most infections traced to community, and not workplace, exposures. Vaccination with 2 doses of the BNT162b2 vaccine (Pfizer/BioNTech), given 21 days apart, began on Dec. 20, 2020 within the medical center, and within 8 weeks, 84.7% of employees who had not been previously infected by December 20 were vaccinated. Researcher Shmuel Benenson, MD, and colleagues reported that the weekly incidence of Covid-19 after administration of the first dose “declined notably” within two weeks and continued to decrease dramatically through the fourth week. By week seven, just four health care workers who had received two doses of vaccine tested positive for SARS-CoV-2 compared to 50 a week following the initial dose. Vaccination of health care workers with the BNT162b2 vaccine resulted in a major reduction of new cases of Covid-19 among those who received two doses of the vaccine, even when a surge of the B.1.1.7 variant was noted in up to 80% of cases.

  o A study involving pooled data on health care workers from the University of California, San Diego (UCSD) and the University of California, Los Angeles (UCLA) health systems also showed very low rates of infection among workers within weeks of receiving a second dose of mRNA vaccine. The analysis included 36,659 health care workers who received their first dose of either the BNT162b2 or the mRNA-1273 (Moderna) mRNA vaccine, including 28,184 (77%) who received a second dose, between mid-December 2020 and early February 2021. Among the vaccinated workers, a total of 379 tested positive for SARS-CoV-2 at least one day after receiving their first shot. The majority (71%) tested positive within the first two weeks after receiving a single dose. A total of 37 workers tested positive after receiving a second dose of vaccine, but 22 of these cases occurred within a week of full vaccination. Seven of the 379 new infections occurred at day 15 or later after receiving the second dose.

  o A report on the health care worker vaccination program at the University of Texas Southwestern Medical Center (UTSW), Dallas, both highlighted the efficacy of vaccination and raised concerns about worker vaccine hesitancy. The initiation of a health care worker vaccination program in mid-December 2020, coincided with escalating community SARS-CoV-2 infections in the area, which led to a large surge of Covid-19 cases and strains on health system capacity to deliver care to patients hospitalized due to the virus. In the initial 31 days of the vaccination program, 59% of the 23,234 UTSW employees received a first dose of either of the mRNA vaccines. Thirty percent of those receiving an initial dose received a second dose during this period. In the six weeks following the vaccine program initiation, a total of 350 employees (1.5%) who were eligible to receive the vaccine tested positive for SARS-CoV-2, including 238 who had not been vaccinated, 112 who were partially vaccinated, and four who were fully vaccinated (0.05%; 95% CI, 0.01-0.13; P<0.01). The researchers noted that from early January on, the actual number of positive tests among UTSW staffers was
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consistently lower than the number projected based on increasing SARS-CoV-2 positivity among patients presenting to the medical center emergency department. A greater than 90% decrease in the number of staffers who were either in isolation or quarantine was seen following full vaccination.

- Similarly, according to a brand new report from the CDC, prospective cohorts of 3,950 health care personnel, first responders, and other essential and frontline workers completed weekly SARS-CoV-2 testing for 13 consecutive weeks. Under real-world conditions, mRNA vaccine effectiveness of full immunization (≥14 days after second dose) was 90% against SARS-CoV-2 infections regardless of symptom status; vaccine effectiveness of partial immunization (≥14 days after first dose but before second dose) was 80%.
- While authorized mRNA COVID-19 vaccines are clearly effective for preventing SARS-CoV-2 infection in real-world conditions, the slightly higher absolute risk for testing positive following full vaccination than was reported in clinical trials underscores the critical importance of continued public health mitigation measures (masking, physical distancing, daily symptom screening, and regular testing), even in environments with a high incidence of vaccination, until herd immunity is reached at large.

PUBLIC HEALTH UPDATES

- FDA Authorizes First Machine Learning-Based Screening Device to Identify Certain Biomarkers That May Indicate COVID-19 Infection
- FDA Continues to Advance Over-the-Counter and Other Screening Test Development
- FDA updates on hand sanitizers consumers should not use

GUIDANCE/GUIDELINE


RESOURCES

- CDC
  - COVID Data Tracker
    - Weekly Review
    - COVID-19 Integrated County View
    - Trends in Number of COVID-19 Vaccinations in the US
  - Variant Proportions in the U.S.
  - Underlying Medical Conditions Associated with High Risk for Severe COVID-19: Information for Healthcare Providers
  - Ventilation in Buildings
  - COVID-19 Science Update
  - MMWR Podcasts
- CDC/IDSA
  - COVID-19 Clinician Call: COVID-19 Outcomes in Immunosuppressed Individuals with Autoimmune Disease; Variants Q&A
  - AST/IDSA Webinar: COVID-19 Vaccine in Transplant & Immunocompromised Populations
- IDSA:
  - Podcast: An Update on COVID-19 Diagnostic Testing
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- American College of Obstetricians and Gynecologists
  - Vaccinating Pregnant Individuals: Eight Key Recommendations for COVID-19 Vaccination Sites
- California State Government Website
  - Vaccination progress dashboards
- CA Safe Schools for All
  - Virtual Training Academy
- University of Minnesota Center for Infectious Disease Research and Policy (CIDRAP)
  - COVID-19 Podcasts and Webinars
- JAMA Network
  - Helmet Noninvasive Ventilation of COVID-19 Patients
- NIHR Global Health Research Unit on Global Surgery
  - CovidSurg – A platform of studies aiming to explore the impact of COVID-19 in surgical patients and services
- British Association of Dermatologists
  - Covid-19 Skin Patterns

ACADEMIC/RESEARCH PAPERS

- Nature
  - Escape of SARS-CoV-2 501Y.V2 from neutralization by convalescent plasma
  - Sensitivity of infectious SARS-CoV-2 B.1.1.7 and B.1.351 variants to neutralizing antibodies
  - Bispecific IgG neutralizes SARS-CoV-2 variants and prevents escape in mice
  - SARS-CoV-2 infection of the oral cavity and saliva
  - Genome-wide CRISPR screening identifies TMEM106B as a proviral host factor for SARS-CoV-2
- Cell
  - Neutralizing and protective human monoclonal antibodies recognizing the N-terminal domain of the SARS-CoV-2 spike protein
- Open Forum Infectious Diseases
  - CD8+ T cell responses in COVID-19 convalescent individuals target conserved epitopes from multiple prominent SARS-CoV-2 circulating variants
- Lancet
  - Efficacy of ChAdOx1 nCoV-19 (AZD1222) vaccine against SARS-CoV-2 variant of concern 202012/01 (B.1.1.7): an exploratory analysis of a randomised controlled trial
  - Safety and immunogenicity of a recombinant tandem-repeat dimeric RBD-based protein subunit vaccine (ZF2001) against COVID-19 in adults: two randomised, double-blind, placebo-controlled, phase 1 and 2 trials
  - Routine asymptomatic testing strategies for airline travel during the COVID-19 pandemic: a simulation study
  - Is there space for a three-dose vaccine to fight the spread of SARS-CoV-2?
  - The effect of seasonal respiratory virus transmission on syndromic surveillance for COVID-19 in Ontario, Canada
  - Rolling out COVID-19 antigen rapid diagnostic tests: the time is now
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- **JAMA**
  - Association of Age With SARS-CoV-2 Antibody Response
  - Effect of Helmet Noninvasive Ventilation vs High-Flow Nasal Oxygen on Days Free of Respiratory Support in Patients With COVID-19 and Moderate to Severe Hypoxemic Respiratory Failure – The HENIVOT Randomized Clinical Trial
  - How COVID-19 Affects the Brain
  - Association of Race/Ethnicity With Likeliness of COVID-19 Vaccine Uptake Among Health Workers and the General Population in the San Francisco Bay Area
  - Incentivizing Vaccination Uptake – The “Green Pass” Proposal in Israel
  - In-Person and Telehealth Ambulatory Contacts and Costs in a Large US Insured Cohort Before and During the COVID-19 Pandemic
  - Trends in Health Care Worker Intentions to Receive a COVID-19 Vaccine and Reasons for Hesitancy

- **New England Journal of Medicine**
  - What Earlier Epidemics Teach Us about Covid-19

- **Pediatrics**
  - COVID-19 Infections among Students and Staff in New York City Public Schools

- **FAIR Health**
  - The Impact of COVID-19 on Pediatric Mental Health

- **Annals of Internal Medicine**
  - Spatial Inequities in COVID-19 Testing, Positivity, Confirmed Cases, and Mortality in 3 U.S. Cities – An Ecological Study
  - Update Alert 8: Epidemiology of and Risk Factors for Coronavirus Infection in Health Care Workers
  - COVID-19 Vaccine: Practical Clinical Considerations

- **Journal of General Internal Medicine**
  - Decline and Rebound in Routine Cancer Screening Rates During the COVID-19 Pandemic

- **Anaesthesia**
  - The effect of respiratory activity, non-invasive respiratory support and facemasks on aerosol generation and its relevance to COVID-19

- **The Journal of Heart and Long Transplantation**
  - Rapid Clinical Recovery from Critical COVID-19 Pneumonia with Vasoactive Intestinal Peptide Treatment

- **Annals of Clinical and Translational Neurology**
  - Persistent neurologic symptoms and cognitive dysfunction in non-hospitalized Covid-19 “long haulers”

- **Journal of American College of Cardiology**
  - COVID-19 in Adults With Congenital Heart Disease

- **Hypertension**
  - Stage III hypertension in patients after mRNA-based SARS-CoV-2 vaccination

- **The Journal of Rheumatology**

- **American Journal of Infection Control**
  - Impact of the influenza vaccine on COVID-19 infection rates and severity

- **Infection**
  - Characteristics of viral pneumonia in the COVID-19 era: an update
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- **Clinical Infectious Diseases**
  - Single dose of a mRNA SARS-CoV-2 vaccine is associated with lower nasopharyngeal viral load among nursing home residents with asymptomatic COVID-19
  - Phylogenetic analyses of SARS-CoV-2 B.1.1.7 lineage suggest a single origin followed by multiple exportation events versus convergent evolution
  - Six feet and the classroom
  - Associations between measures of social distancing and SARS-CoV-2 seropositivity: a nationwide population-based study in the Netherlands
  - Assessing asymptomatic, pre-symptomatic and symptomatic transmission risk of SARS-CoV-2
  - Prevalence of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) among Health Care Workers—Zambia, July 2020
  - SARS-CoV-2 Infection Challenge Experiments in Nonhuman Primates: An Ethical Perspective

- **Emerging Infectious Diseases**
  - Rapid Detection of SARS-CoV-2 Variants of Concern, Including B.1.1.28/P.1, in British Columbia, Canada
  - Detecting Rapid Spread of SARS-CoV-2 Variants, France, January 26–February 16, 2021
  - Dynamic Public Perceptions of the Coronavirus Disease Crisis, the Netherlands, 2020
  - Experimental SARS-CoV-2 Infection of Bank Voles

- **WHO**
  - WHO-convened global study of origins of SARS-CoV-2: China Part
  - Weekly epidemiological update on COVID-19 - 30 March 2021

- **British Journal of Dermatology**
  - Diagnostic value of cutaneous manifestation of SARS-CoV-2 infection
  - Cutaneous Manifestation of COVID-19 – Special virtual issue

- **British Journal of Surgery**
  - SARS-CoV-2 vaccination modelling for safe surgery to save lives: data from an international prospective cohort study

- **European PMC**

- **Canadian Institute for Health Information**
  - Long-term care and COVID-19: The first 6 months

**MMWR**

- Interim Estimates of Vaccine Effectiveness of BNT162b2 and mRNA-1273 COVID-19 Vaccines in Preventing SARS-CoV-2 Infection Among Health Care Personnel, First Responders, and Other Essential and Frontline Workers — Eight U.S. Locations, December 2020–March 2021
- Willingness to Receive a COVID-19 Vaccination Among Incarcerated or Detained Persons in Correctional and Detention Facilities — Four States, September–December 2020
- Rapid Spread of SARS-CoV-2 in a State Prison after Introduction by Newly Transferred Incarcerated Persons — Wisconsin, August 14–October 22, 2020
- Death Certificate–Based ICD-10 Diagnosis Codes for COVID-19 Mortality Surveillance — United States, January–December 2020
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• Symptoms of Anxiety or Depressive Disorder and Use of Mental Health Care Among Adults During the COVID-19 Pandemic — United States, August 2020–February 2021

HOT OFF THE (LAY) PRESS

• The Washington Post
  o Biden, health officials sound alarm as signs of COVID surge proliferate
  o Cases and hospitalizations are on the rise. ‘We cannot afford to let our guard down,’ CDC director says.
  o Biden commits $10 billion to close racial and other gaps in vaccine coverage

• National Post
  o ‘A very clear shift’: Younger people getting sicker, faster with COVID, doctors say

• Politico
  o Biden faces first Covid surge as Democratic governors brush off warnings

• New York Times
  o Vaccinated Americans are at low risk while traveling but must still wear masks, the C.D.C. says.
  o Biden Pushes Mask Mandate as C.D.C. Director Warns of ‘Impending Doom’
  o Cases are rising again in the U.S., as variants spread and states lift restrictions
  o Virus Surge in Michigan Is a ‘Gut Punch’ to Hopes of Pandemic’s End
  o Johnson & Johnson’s vaccine is delayed by a U.S. factory mixup
  o As U.S. manufacturers hit their stride, vaccine scarcity will soon turn to a glut
  o For Biden, a New Virus Dilemma: How to Handle a Looming Glut of Vaccine
  o As Nation Speeds to Vaccinate All, Maryland’s Path Shows Challenges Ahead
  o Experts Grade California’s Vaccine Rollout
  o The Pfizer-BioNTech Vaccine Is Said to Be Powerfully Protective in Adolescents
  o Johnson & Johnson has begun testing its vaccine in adolescents
  o The Moderna and Pfizer-BioNTech vaccines are very effective in real-world conditions at preventing infections, the C.D.C. reported
  o Can Vaccinated People Spread the Virus? We Don’t Know, Scientists Say.
  o The Vaccination Gap Among Hispanic Communities Reflects Barriers to Access
  o Getting to Yes: A Nursing Home’s Mission to Vaccinate Its Hesitant Staff
  o Far-Right Extremists Move From ‘Stop the Steal’ to Stop the Vaccine
  o Hundreds of thousands of Americans likely died needlessly from Covid-19, Dr. Deborah Birx, a Trump administration official, suggested in a CNN report.
  o The State of Summer Vacation
  o A DNA Sequencing Revolution Helped Us Fight Covid. What Else Can It Do?
  o The Next Trick: Pulling Coronavirus Out of Thin Air
  o Why coronavirus testing still matters

• Vox
  o Why the decline in US Covid-19 testing is so alarming

• Recode
  o What Covid-19 testing looks like in the age of vaccines

• The Atlantic
  o COVID-19 Is Different Now
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- **CNBC**
  - White House weighs temporarily lifting intellectual property shield on Covid-19 vaccines
  - Biden says 90% of U.S. adults will be eligible for Covid shots by April 19 with sites within five miles of home

- **The Wall Street Journal**
  - Covid-19 Shots for Children Hold Key to Herd Immunity

- **Kaiser Health News**
  - Nosing In on Kids Who Had Covid and Lost Their Sense of Smell

- **Scientific American**
  - When Will Kids Get COVID Vaccines?
  - Your Immune System Evolves to Fight Coronavirus Variants

- **NPR**
  - Rutgers To Require Vaccine Proof For 'All Students Planning To Attend This Fall'
  - FDA Approves 2 Rapid, At-Home COVID Tests
  - CDC: COVID-19 Was 3rd-Leading Cause Of Death In 2020, People Of Color Hit Hardest
  - U.S. Is In A Race Between Vaccines And Variants, Says Public Health Expert
  - Federal Program To Bring Vaccine To Nursing Homes Missed Around Half Of Staff
  - Racial Equity In Vaccination? Dialysis Centers Can Help With That
  - Many World Leaders Call For Treaty On Future Pandemics

- **WHO News**
  - COVID-19 shows why united action is needed for more robust international health architecture

- **JAMA Medical News**
  - Unequal Access to COVID-19 Vaccines Leaves Less-Wealthy Countries More Vulnerable, Poses Threat to Global Immunity

- **OXFAM International Press Releases**
  - Two-thirds of epidemiologists warn mutations could render current COVID vaccines ineffective in a year or less

- **Reuters**
  - Pfizer COVID-19 shot 91% effective in updated data, protective against South African variant
  - Norway keeps AstraZeneca vaccine on hold for another three weeks
  - Britain gives go-ahead to 20-second COVID-19 test, distributor says
  - Foreign vaccine-seekers flock to Serbia for COVID-19 shots
  - The Fatal Shore – How a coronavirus variant tore through a tiny English island and onto the world stage
  - FACTBOX-WHO-China report on virus origins says lab leak extremely unlikely
  - U.S., 13 countries concerned WHO COVID-19 origin study was delayed, lacked access

- **Popular Science**
  - The next pandemic could be lurking anywhere. Can this wildlife-tracking app help prevent it?

- **Science News**
  - Common fungus emerges as threat to hospitalized COVID-19 patients
  - ‘Compromise’ WHO report resolves little on pandemic’s origins, but details probe’s next steps
  - ‘I’m empty.’ Pandemic scientists are burning out—and don’t see an end in sight

- **STAT News**
  - A user’s guide: How to talk to those hesitant about the Covid-19 vaccine
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**National Geographic**
- Coronavirus in the U.S.: Where cases are growing and declining
- The complex debate over how to equitably distribute the different vaccines
- China’s exotic farms may be a missing link behind the pandemic’s leap to people
- America’s Filipino nurses remain resilient pillars at home and abroad despite pandemic
- Laminated hands and car desks: How schools are welcoming kids back
- Excited for the return of in-person class? Your kids may not be.
- @DearPandemic: Meet the women answering burning questions big and small about COVID-19

**Medpage Today**
- Dialysis Clinics to Start Giving COVID Shots Nationwide — Professional societies, industry say new White House policy will save lives
- Benzene Found in Multiple Hand Sanitizer Brands— Known human carcinogen can be absorbed through the skin
- They Came for a Caribbean Escape, and Stayed for COVID Shots — St. Croix rides wave of vaccine tourism
- NIAID Launches Trial to Assess Post-Vax COVID Transmission Risk— Fauci: Results to guide "science-based decisions" on masks, social distancing

**Hutch News**
- College students muster for big COVID-19 vaccine study

**Pfizer Press Releases**
- PFIZER-BIONTECH ANNOUNCE POSITIVE TOPLINE RESULTS OF PIVOTAL COVID-19 VACCINE STUDY IN ADOLESCENTS

**Abbott Press Releases**
- ABBOTT'S BINAXNOW™ RAPID ANTIGEN SELF TEST RECEIVES FDA EMERGENCY USE AUTHORIZATION FOR ASYMPTOMATIC, OVER-THE-COUNTER, NON-PRESCRIPTION, MULTI-TEST USE

**Quidel Press Releases**
- QUIDEL'S QUICKVUE® AT-HOME OTC COVID-19 TEST RECEIVES EMERGENCY USE AUTHORIZATION FOR SCREENING USE WITH SERIAL TESTING

**CISON**
- NeuroRx Announces ZYESAMI™ (aviptadil, RLF-100) Met the Primary Endpoint of Its Phase 2b/3 Clinical Trial and Also Demonstrated a Meaningful Benefit in Survival from Critical COVID-19

**Oncology News**
- FDA OKs Launch of Phase III Tocilizumab Trial for COVID-19 Pneumonia

**SciTechDaily**
- Deactivating COVID-19 Virus Cough Droplets With UV-C Lamps

**Business Wire**
- Humanigen Reports Positive Phase 3 Topline Results Demonstrating That Lenzilumab™ Improves Survival Without Need for Mechanical Ventilation in Hospitalized Patients With COVID-19
- Moderna Announces Shipment of 100 Millionth Dose of its COVID-19 Vaccine to the U.S. Government

**AP News**
- More than a dozen states to open vaccines to all adults
- Virus fight stalls in early hot spots New York, New Jersey
- Paris doctors warn of catastrophic overload of virus cases
- Germany to restrict AstraZeneca use in under-60s over clots
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- **CNN**
  - Canada halting AstraZeneca vaccine shots for people 55 and younger
- **ASH Clinical News**
  - Benefits of AstraZeneca’s COVID-19 Vaccine Outweigh Clotting Risk, Regulatory Agencies Say
- **BBC News**
  - Coronavirus: Germany tightens borders amid alarm over pandemic
  - 'Double mutant': What are the risks of India's new Covid-19 variant
- **University of Michigan Institute for Healthcare Policy and Innovation News**
  - Big shift seen in high-risk older adults’ attitudes toward COVID-19 vaccination
- **Detroit Free Press**
  - Michigan's COVID-19 case rate is 3rd worst in US, schools go virtual, hospitals fill up
- **News 8**
  - Health experts urge caution as more young people admitted to hospital with variants of COVID
- **The Hill**
  - IRS: Masks, sanitizer bought to fight COVID-19 can be deducted from taxes
- **KQED**
  - Indigenous-Language Radio Show In Oakland Promotes Vaccine Effort
- **Los Angeles Times**
  - 'Mad rush' for COVID-19 vaccine is on for Californians ages 50 to 64 as expansion nears.
- **NBC Bay Area**
  - Experts Worry About COVID-19 Uptick as Crowds Gather in SF
- **The Mercury News**
  - It’s just not right:’ San Mateo County residents call for apology after COVID data error
  - Why San Mateo County businesses are far less likely to get a COVID fine than those in Santa Clara
  - California’s epidemiologist urges residents to get vaccinated
- **SFist**
  - All Three Major COVID Variants Now Present In Bay Area As Santa Clara County Confirms First 'P.1' Case
- **San Francisco Chronicle**
  - First case of immune-resistant variant from Brazil found in the Bay Area
  - Santa Clara County officials warn of possible fourth 'swell' as variants rise
  - Contra Costa County may offer vaccination to all 16 and up this week
  - Vaccine eligibility opening to people as young as 50 - 'except we don't have the vaccine'
  - Bay Area residents age 50-plus join the hunt for lifesaving vaccinations
  - Kaiser warns that a wait is likely as it opens COVID vaccines to 50 and over
  - Vaccine eligibility will open to anyone 16 and older on April 15; is Bay Area ready?
  - Open season for vaccines presents advantages, new challenges for equal access
  - How long will San Francisco need COVID testing? Longer than you might think
  - Data dive: Where Bay Area's vaccine enthusiasm ranks vs. other metro areas
  - Napa and Alameda counties set to move to orange tier, allowing wineries to open indoor tastings
  - 'Impending doom' seen in U.S. coronavirus climb, and even Bay Area could slip back
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**EPIDEMIOLOGY UPDATES**

- **CDC COVID Data Tracker**
  - [United States COVID-19 Cases and Deaths by State](https://covid.cdc.gov/covid-data-tracker/)
  - [CDC COVID Data Tracker: Vaccinations](https://covid.cdc.gov/covid-data-tracker/)
  - [CDC US COVID-19 Cases Caused by Variants](https://covid.cdc.gov/covid-data-tracker/)

- **US Leads the World in Confirmed COVID-19 Cases** per [Johns Hopkins University Center for Systems Science and Engineering Dashboard Website](https://coronavirus.jhu.edu/)
  - *Johns Hopkins COVID-19 in the USA* — daily summary of key data on COVID-19 in the U.S.
  - *California COVID-19 by the numbers* are available on the [CDPH Website](https://covid19.ca.gov/) and the [NYT Map and Table](https://www.nytimes.com/interactive/2020/06/01/us/coronavirus-tracker-live-updates.html) (includes data by county)

- **California COVID-19 Statewide Update** as of April 2, 2021

- **San Mateo County COVID-19 Dashboard**
- **Santa Clara County COVID-19 Dashboard**

**ADDITIONAL COVID-19 RESOURCES**

- [San Mateo County COVID-19 Guidance and Resources for Clinicians and Facilities – COVID-19 Digests](https://covid19.sanmateo.co.us/)
- [Palo Alto Online tracking the coronavirus in San Mateo and Santa Clara counties](https://www.paloaltonews.com/coronavirus/)
- [California COVID-19 Data and Tools](https://covid19.ca.gov/)
- [CDPH COVID-19 Assessment and Modeling Tool](https://cdph.ca.gov/)
- [California Department of Corrections and Rehabilitations Population COVID-19 Tracking Dashboards](https://cdph.ca.gov/)
- [CDC Interactive Serology Dashboard for Commercial Laboratory Surveys](https://covid.cdc.gov/covid-data-tracker/)
- [HHS Coronavirus Data Hub](https://www.hhs.gov/coronavirus/)
- [COVID-19 Nursing Home Data](https://www.hhs.gov/coronavirus/)