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August 27, 2021

CLINICAL PEARL

- While originally thought of as potential sites for transmission, a large amount of observation and data has demonstrated that educational settings are not necessarily high-risk environments for COVID-19 spread. According to a BMC Infectious Diseases article, researchers from Luxemburg observed a total of 390 and 34 confirmed COVID-19 cases among 90,150 school-age children and 11,667 teachers during the summer wave when schools were open. While there were some cases of school-associated clusters, they were largely minimal. According to the authors, “[p]recautionary measures including physical distancing as well as easy access to testing, systematic contact tracing appear to have been successful in mitigating transmission within educational settings.”

PUBLIC HEALTH UPDATES

- Santa Clara County Office of Education: Bay Area County Superintendents Announce Their Support of Full, In-Person Learning
- CDC Health Advisory: Vaccination to Prevent COVID-19 Outbreaks with Current and Emergent Variants — United States, 2021
- Joint Statement from HHS Public Health and Medical Experts on COVID-19 Booster Shots
- FDA authorizes REGEN-COV monoclonal antibody therapy for post-exposure prophylaxis (prevention) for COVID-19
- American College of Obstetricians and Gynecologists (ACOG): ACOG and SMFM Recommend COVID-19 Vaccination for Pregnant Individuals
- California State Public Health Officer Order of August 16, 2021 on Hospital and Health Care System Surge

GUIDANCE/GUIDELINES

- CDC Considerations for use of an additional mRNA COVID-19 vaccine dose after an initial 2-dose COVID-19 mRNA vaccine series for immunocompromised people
- CDPH
  - Recommendations on Additional Doses for People Whose Immune Systems are Compromised
  - Questions and Answers: Additional COVID-19 Vaccine Doses for People Whose Immune Systems are Compromised
  - Guidance on Isolation and Quarantine for COVID-19 Contact Tracing
- NIH COVID-19 Treatment Guidelines Anti-SARS-CoV-2 Antibody Products

RESOURCES

- CDC COCA Webinars:
  - Additional mRNA COVID-19 Vaccines for Moderately to Severely Immunocompromised People
  - Therapeutic Options to Prevent Severe COVID-19 in Immunocompromised People
- CDC/IDSA COVID-19 Clinician Calls:
  - Additional Vaccine Doses in the Immune Compromised; Plus the Latest on the Delta Variant and Vaccination in Pregnant Women
  - More on the Delta Variant, CDC Masking Recommendations and Updates from ACIP
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- Update on Variants & Immunity
  - IDSA
    - Media Briefing: COVID & Schools
    - Vaccine Education Roundtables:
      - Pediatric Vaccine Disparities & Virus Variants
      - Reaching Vaccine Hesitant Populations, Part 1
      - Reaching Vaccine Hesitant Populations, Part 2
    - Podcasts:
      - Does the Delta Variant Mean Different Things for Elementary, High School, and College?
      - Vaccines, the Delta Variant, and Chasing Herd Immunity
      - Treating Long Covid, Hospitalizations, and Breakthrough Cases
  - HIV Medicine Association COVID-19 Vaccines and People with HIV Frequently Asked Questions
  - Center for Infectious Disease Research and Policy (CIDRAP) Osterholm Update:
    - An Ongoing Tug of War
    - Straight Talk
    - Ebbs and Flows
    - Untangling the Data
    - Divided by Delta

ACADEMIC/RESEARCH PAPERS

- New England Journal of Medicine
  - Covid-19 Breakthrough Infections in Vaccinated Health Care Workers
  - Breakthrough Infections in BNT162b2-Vaccinated Health Care Workers
  - Infection and Vaccine-Induced Neutralizing-Antibody Responses to the SARS-CoV-2 B.1.617 Variants

- medRxiv
  - Comparing SARS-CoV-2 natural immunity to vaccine-induced immunity: reinfections versus breakthrough infections
  - Immune Correlates Analysis of the mRNA-1273 COVID-19 Vaccine Efficacy Trial
  - Viral infection and transmission in a large, well-traced outbreak caused by the SARS-CoV-2 Delta variant
  - Infectious SARS-CoV-2 in Exhaled Aerosols and Efficacy of Masks During Early Mild Infection
  - Comparison of two highly-effective mRNA vaccines for COVID-19 during periods of Alpha and Delta variant prevalence
  - Gut microbiota alterations in patients with persistent respiratory dysfunction three months after severe COVID-19

- Science
  - Durability of mRNA-1273 vaccine–induced antibodies against SARS-CoV-2 variants
  - mRNA vaccination boosts cross-variant neutralizing antibodies elicited by SARS-CoV-2 infection
  - Prior SARS-CoV-2 infection rescues B and T cell responses to variants after first vaccine dose
  - Prospective mapping of viral mutations that escape antibodies used to treat COVID-19

- JAMA
  - COVID-19 Transmission Dynamics Among Close Contacts of Index Patients With COVID-19 - A Population-Based Cohort Study in Zhejiang Province, China
  - 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
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- Association of Myocarditis With BNT162b2 Messenger RNA COVID-19 Vaccine in a Case Series of Children
- Short-term Reactions Among Pregnant and Lactating Individuals in the First Wave of the COVID-19 Vaccine Rollout
- Antibody Response to COVID-19 Vaccination in Adults With Hematologic Malignant Disease

- The Lancet
  - Spike-antibody waning after second dose of BNT162b2 or ChAdOx1
  - Antibody response after second BNT162b2 dose in allogeneic HSCT recipients
  - Bell's palsy following vaccination with mRNA (BNT162b2) and inactivated (CoronaVac) SARS-CoV-2 vaccines: a case series and nested case-control study
  - Characterizing long COVID in an international cohort: 7 months of symptoms and their impact
  - Cognitive deficits in people who have recovered from COVID-19
  - Neutralising antibodies after COVID-19 vaccination in UK haemodialysis patients

- Immunity
  - Live Imaging of SARS-CoV-2 Infection in Mice Reveals that Neutralizing Antibodies Require Fc Function for Optimal Efficacy

- Nature
  - A human three-dimensional neural-perivascular ‘assembloid’ promotes astrocytic development and enables modeling of SARS-CoV-2 neuropathology
  - SARS-CoV-2 infection induces the dedifferentiation of multiciliated cells and impairs mucociliary clearance
  - Multidisciplinary assessment of the Abbott BinaxNOW SARS-CoV-2 point-of-care antigen test in the context of emerging viral variants and self-administration
  - SARS-CoV-2 mRNA vaccines induce persistent human germinal centre responses

- Clinical Microbiology and Infection
  - BNT162b2 vaccine breakthrough: clinical characteristics of 152 fully vaccinated hospitalized COVID-19 patients in Israel

- Clinical Infectious Diseases
  - Heterologous ChAdOx1-S/BNT162b2 vaccination: neutralizing antibody response to SARS-CoV-2
  - Viral Load of SARS-CoV-2 in Respiratory Aerosols Emitted by COVID-19 Patients while Breathing, Talking, and Singing
  - Evidence, Experience, Expertise, and the US Coronavirus Disease 2019 Public Health Response
  - Risk Factors for Illness Severity Among Pregnant Women With Confirmed Severe Acute Respiratory Syndrome Coronavirus 2 Infection—Surveillance for Emerging Threats to Mothers and Babies Network, 22 State, Local, and Territorial Health Departments, 29 March 2020–5 March 2021
  - Results of a Shortened Quarantine Protocol on a Midwestern College Campus
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- Coronavirus Disease 2019 (COVID-19) Mitigation Efforts and Testing During an In-Person Training Event—Uganda, 12–29 October 2020
- Severe Acute Respiratory Syndrome Coronavirus 2 Transmission in Intercollegiate Athletics Not Fully Mitigated With Daily Antigen Testing
- Performance of Repeat BinaxNOW Severe Acute Respiratory Syndrome Coronavirus 2 Antigen Testing in a Community Setting, Wisconsin, November 2020–December 2020
- A Comparison of Less Invasive Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Diagnostic Specimens in Nursing Home Residents—Arkansas, June–August 2020
- Detection of Severe Acute Respiratory Syndrome Coronavirus 2 on Self-Collected Saliva or Anterior Nasal Specimens Compared With Healthcare Personnel–Collected Nasopharyngeal Specimens
- Investigation of a Suspect Severe Acute Respiratory Syndrome Coronavirus-2 and Influenza A Mixed Outbreak: Lessons Learned for Long-Term Care Facilities Nationwide
- Coronavirus Disease 2019 (COVID-19) Outbreaks at 2 Construction Sites—New York City, October–November 2020
- Widespread Severe Acute Respiratory Syndrome Coronavirus 2 Transmission Among Attendees at a Large Motorcycle Rally and their Contacts, 30 US Jurisdictions, August–September, 2020
- Changes in Seasonal Respiratory Illnesses in the United States During the Coronavirus Disease 2019 (COVID-19) Pandemic

- Science Advances
  - Excess of COVID-19 cases and deaths due to fine particulate matter exposure during the 2020 wildfires in the United States

- Emerging Infectious Diseases
  - Correlation of SARS-CoV-2 Subgenomic RNA with Antigen Detection in Nasal Midturbinate Swab Specimens
  - Rapid Increase in SARS-CoV-2 P.1 Lineage Leading to Codominance with B.1.1.7 Lineage, British Columbia, Canada, January–April 2021
  - Bordetella hinzii Pneumonia and Bacteremia in a Patient with SARS-CoV-2 Infection
  - Resurgence of Respiratory Syncytial Virus Infections during COVID-19 Pandemic, Tokyo, Japan
  - SARS-CoV-2 Variants in Immunocompromised Patient Given Antibody Monotherapy
  - Bloodstream Infection Risk, Incidence, and Deaths for Hospitalized Patients during Coronavirus Disease Pandemic
  - SARS-CoV-2 Neutralization Resistance Mutations in Patient with HIV/AIDS, California, USA
  - Breakthrough Infections of SARS-CoV-2 Gamma Variant in Fully Vaccinated Gold Miners, French Guiana, 2021
  - Fatal Exacerbations of Systemic Capillary Leak Syndrome Complicating Coronavirus Disease
  - Direct and Indirect Effectiveness of mRNA Vaccination against Severe Acute Respiratory Syndrome Coronavirus 2 in Long-Term Care Facilities, Spain
  - Emergence of SARS-COV-2 Spike Protein Escape Mutation Q493R after Treatment for COVID-19
  - SARS-CoV-2 Prevalence among Outpatients during Community Transmission, Zambia, July 2020
  - Peridomestic Mammal Susceptibility to Severe Acute Respiratory Syndrome Coronavirus 2 Infection
  - SARS-CoV-2 Superspread in Fitness Center, Hong Kong, China, March 2021
  - Social Distancing, Mask Use, and Transmission of Severe Acute Respiratory Syndrome Coronavirus 2, Brazil, April–June 2020
  - Transmission Dynamics of Severe Acute Respiratory Syndrome Coronavirus 2 in High-Density Settings, Minnesota, USA, March–June 2020
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- Persistence of SARS-CoV-2–Specific IgG in Children 6 Months After Infection, Australia
- Intense and Mild First Epidemic Wave of Coronavirus Disease, The Gambia
- Weekly SARS-CoV-2 Sentinel Surveillance in Primary Schools, Kindergartens, and Nurseries, Germany, June–November 2020
- Outbreak of SARS-CoV-2 B.1.1.7 Lineage after Vaccination in Long-Term Care Facility, Germany, February–March 2021
- Delayed Antibody and T-Cell Response to BNT162b2 Vaccination in the Elderly, Germany
- Effects of Patient Characteristics on Diagnostic Performance of Self-Collected Samples for SARS-CoV-2 Testing
- Whole-Genome Sequencing of SARS-CoV-2 from Quarantine Hotel Outbreak
- Epidemiology of COVID-19 in Prisons, England, 2020
- COVID-19 and the Consequences of Anchoring Bias
- BMC Infectious Diseases
  - SARS-CoV-2 transmission in educational settings during an early summer epidemic wave in Luxembourg, 2020

- BMJ Journal
  - Sequential contralateral facial nerve palsies following COVID-19 vaccination first and second doses

- mBio
  - Oral Bacteria Combined with an Intranasal Vaccine Protect from Influenza A Virus and SARS-CoV-2 Infection

- Cancer Cell
  - Antibody and T cell immune responses following mRNA COVID-19 vaccination in patients with cancer

- American College of Rheumatology
  - Impaired Antibody Response to the BNT162b2 Messenger RNA Coronavirus Disease 2019 Vaccine in Patients With Systemic Lupus Erythematosus and Rheumatoid Arthritis

- Blood
  - Response to SARS-CoV-2 vaccination in patients after hematopoietic cell transplantation and CAR-T cell therapy

- The Journal of Allergy and Clinical Immunology
  - Asthma Disease Status, COPD, and COVID-19 Severity in a Large Multiethnic Population

- Journal of Proteome Research
  - Genetic Variability of the SARS-CoV-2 Pocketome

- iScience
  - Sensitive extraction-free SARS-CoV-2 RNA virus detection using a chelating resin

- Analytical Chemistry
  - Rapid Classification of COVID-19 Severity by ATR-FTIR Spectroscopy of Plasma Samples

MMWR

- Effectiveness of COVID-19 Vaccines in Preventing SARS-CoV-2 Infection Among Frontline Workers Before and During B.1.617.2 (Delta) Variant Predominance — Eight U.S. Locations, December 2020–August 2021
- SARS-CoV-2 Infections and Hospitalizations Among Persons Aged ≥16 Years, by Vaccination Status — Los Angeles County, California, May 1–July 25, 2021
- Effectiveness of Pfizer-BioNTech and Moderna Vaccines in Preventing SARS-CoV-2 Infection Among Nursing Home Residents Before and During Widespread Circulation of the SARS-CoV-2 B.1.617.2 (Delta) Variant — National Healthcare Safety Network, March 1–August 1, 2021
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- Sustained Effectiveness of Pfizer-BioNTech and Moderna Vaccines Against COVID-19 Associated Hospitalizations Among Adults — United States, March–July 2021
- Use of COVID-19 Vaccines After Reports of Adverse Events Among Adult Recipients of Janssen (Johnson & Johnson) and mRNA COVID-19 Vaccines (Pfizer-BioNTech and Moderna): Update from the Advisory Committee on Immunization Practices — United States, July 2021
- Rapid Increase in Circulation of the SARS-CoV-2 B.1.617.2 (Delta) Variant — Mesa County, Colorado, April–June 2021
- Use of Rapid Antigen Testing for SARS-CoV-2 in Remote Communities — Yukon-Kuskokwim Delta, Alaska, September 15, 2020–March 1, 2021
- Reduced Risk of Reinfection with SARS-CoV-2 After COVID-19 Vaccination — Kentucky, May–June 2021
- Effectiveness of COVID-19 Vaccines in Preventing Hospitalization Among Adults Aged ≥65 Years — COVID-NET, 13 States, February–April 2021
- SARS-CoV-2 Infection in Public School District Employees Following a District-Wide Vaccination Program — Philadelphia County, Pennsylvania, March 21–April 23, 2021
- Changes in Influenza and Other Respiratory Virus Activity During the COVID-19 Pandemic — United States, 2020–2021
- Guidance for Implementing COVID-19 Prevention Strategies in the Context of Varying Community Transmission Levels and Vaccination Coverage
- Outbreak of SARS-CoV-2 Infections, Including COVID-19 Vaccine Breakthrough Infections, Associated with Large Public Gatherings — Barnstable County, Massachusetts, July 2021

HOT OFF THE (LAY) PRESS

- New York Times
  - The F.D.A. granted full approval to the Pfizer-BioNTech vaccine, a first for a Covid shot in the U.S. It will pave the way for new vaccine mandates.
  - The Pentagon will mandate Covid vaccines for its 1.4 million active duty service members, following the F.D.A. approval of the Pfizer-BioNTech shot.
  - New York City will require all education staff, including teachers and principals, to be vaccinated, a mandate that will affect about 148,000 workers.
  - California will require all school teachers and staff to have proof of Covid vaccination or be tested weekly. It’s the first state to do so.
  - America’s largest teachers’ union offered its support for policies that would require all teachers to be vaccinated or submit to regular testing.
  - San Francisco will impose some of the nation’s toughest restrictions on unvaccinated people, barring them from indoor dining, bars, gyms and more.
  - The maker of a popular rapid Covid test destroyed inventory and laid off workers just weeks before a surging virus drove up demand for tests.
  - The Biden administration is developing a plan to offer coronavirus vaccine boosters to some Americans as early as this fall.
The Biden administration is using federal leverage to press nursing homes to vaccinate their staffs and deter states from banning school mask mandates.

The C.D.C. strengthened its recommendation that pregnant people be vaccinated against Covid-19, pointing to new safety data.

Some Americans will be eligible for Covid booster shots as early as late September, officials said, citing evidence of waning immunity.

The F.D.A. authorized third doses of Pfizer-BioNTech’s and Moderna’s Covid-19 vaccines for some people with weakened immune systems.

Many Older Americans Still Aren’t Vaccinated, Making the Delta Wave Deadlier

Biden ramps up virus strategy for nursing homes and schools, and urges booster shots

In a Handful of States, Early Data Hint at a Rise in Breakthrough Infections

White House will keep travel bans in place

What We Know About the C.D.C.’s New Mask Guidance for Vaccinated People

As Infections Rise, C.D.C. Urges Some Vaccinated Americans to Wear Masks Again

At the F.D.A.’s urging, Pfizer-BioNTech and Moderna are expanding their studies of children 5 to 11.

Biden officials now expect vulnerable Americans to need booster shots

Medical groups call for mandatory vaccination of U.S. health care workers.

STAT News

U.S. expected to recommend Covid-19 vaccine booster shots for all

Politico

Troubling CDC vaccine data convinced Biden team to back booster shots

A thousand people infected with coronavirus at Dutch outdoor festival

The Hill

Biden risks global backlash on COVID-19 booster shots

The Washington Post

‘Act now’ on global vaccines to stop more-dangerous variants, experts warn Biden

The Wall Street Journal

Fresh U.K. Covid-19 Data Boosts Hopes That Delta Variant Can Be Held in Check

Fortune

As Delta infections spiked, COVID cases in schools actually fell—a lesson from England

European Medicines Agency

COVID-19 Vaccine Janssen: Guillain-Barré syndrome listed as a very rare side effect

Nature News

How the Delta variant achieves its ultrafast spread

National Geographic

Evidence mounts that people with breakthrough infections can spread Delta easily


Bears, baboons, tigers are getting COVID vaccines at zoos across the U.S.

CNBC

Israel says Pfizer Covid vaccine is just 39% effective as delta spreads, but still prevents severe illness

The New Yorker

An Uncertain New Phase of the Pandemic, in Which Cases Surge but Deaths Do Not

How Will the Coronavirus Evolve?

AP News

California to tighten rules for indoor events as cases rise
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- **Los Angeles Times**
  - Child COVID-19 hospitalization rates hit record in U.S. — but not in California. Here’s why
  - LA county now requiring face masks at large outdoor events
  - Delta variant likely to bring a fall and winter of masks, vaccine mandates, anxiety

- **Mercury News**
  - Has Bay Area summer COVID-19 infection wave crested?
  - Santa Clara County offers third vaccine dose to the immunocompromised

- **San Francisco Chronicle**
  - How Bay Area counties are preparing to roll out COVID booster shots
  - Pfizer vaccine wins full FDA approval; Bay Area leaders predict more mandates
  - San Francisco to become first major U.S. city to mandate full vaccination for many indoor activities
  - COVID surges in hospitals, jails spur new health order in Contra Costa County
  - 'Sometimes I get home and I just sob': In Bay Area COVID wards, doctors battle delta, and fatigue
  - COVID plague may take years to end, experts tell UCSF forum
  - Bay Area COVID surge stalling at high level, but experts are hopeful
  - The pep talk you need from two Spanish Flu survivors: 'Life has to go on'
  - Here’s where each Bay Area county stands under CDC's new COVID mask guidelines

**EPIDEMIOLOGY UPDATES**

- [CDC COVID Data Tracker](#)
- US Leads the World in Confirmed COVID-19 Cases per [Johns Hopkins University Center for Systems Science and Engineering Dashboard Website](#)
- [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](#) and the [NYT Map and Table](#) (includes data by county)
  - California [COVID-19 Statewide Update](#) as of August 27, 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](#)
- Palo Alto Online tracking the coronavirus in San Mateo and Santa Clara counties
- [California COVID-19 Data and Tools](#)
- [CDPH COVID-19 Assessment and Modeling Tool](#)
- California Department of Corrections and Rehabilitations Population COVID-19 Tracking Dashboards
- [CDC Interactive Serology Dashboard for Commercial Laboratory Surveys](#)
- [Children and COVID-19: State-Level Data Report](#)
- HHS Coronavirus Data Hub
- [COVID-19 Nursing Home Data](#)