

COVID – 19 Research and Advisory Team: Report and Recommendations #21 August 2, 2020

SFV Members: Barbara Kivowitz, MSW and Dr. Patricia Tsang

This report contains a summary of the key updates on the status of Covid-19 that are more evident since our last report (June 14), along with our current recommendations for actions for SFV to consider taking. Sources include: CDC, WHO, SFDPH, CA DPH, Science Journal, Nature Journal, New England Journal of Medicine, Journal of the American Medical Association, Scripps Research Institute, Johns Hopkins Coronavirus Resource Center, UCSF Medical Grand Rounds, STAT, Institute for Health Metrics & Evaluation, the Covid Tracking Project, other clinical journals, reports from public health professionals, and news media.

RECENT FINDINGS

1) CDC warns many young adults with COVID-19 report longlasting health impacts

The Centers for Disease Control and Prevention (CDC) is trying to quash this popular misconception that younger people simply don't get very bad cases of coronavirus. Indeed, as the CDC pointed out in a report, many young people are suffering severe long-term health consequences after contracting the disease — even though their over rate of mortality is quite low. The Centers for Disease Control and Prevention (CDC) writes that "prolonged symptom duration and disability are common in adults hospitalized with [COVID-19]."

The CDC conducted a multistate telephone survey of a random sample of adults between April 15 and June 25, 2020. In this survey, the researchers found that roughly 19 percent of adults between the ages of 18 and 34 who had tested positive for COVID-19 did not return to their usual state of health within two to three weeks after they were tested. The report also found that — after adjusting for sex, age and race/ethnicity — being obese and reporting a psychiatric condition were associated with odds more than two-fold of a patient not returning to their previous state of health after being infected.

2) Do Covid-19 antibodies protect us from reinfection? Are they persistent long after recovery or do they wane fast?

The antibodies peak after infection, but then rapidly diminish in concentration -- so much so that if the reduction followed in a linear fashion, within 120-150 days you would have no protective antibodies left.

A series of publications in recent weeks on antibody responses to vaccines and an elegant serological study -- an examination of antibodies in your blood -- moved the focus of our knowledge. Both the Oxford and Moderna vaccines generated a robust antibody response, as high or higher than what is generated by a mild or moderate infection with live SARS-CoV-2 virus. These vaccines are like a school for your immune system, they teach your body how to respond to a virus without producing disease.

When a virus invades your body and an antibody response is required for protection, you don't just make enough antibody to match your viral opponent, you overshoot the target significantly to overwhelm the virus and clear it from your system. This anti-viral antibody response would be observed as a rapid rise in antibody levels, and then a rapid waning of antibodies in the months after infection. This quick fall in antibodies was what the early studies captured.

Some of those antibody secreting cells may live on in the bone marrow, potentially persisting for years, secreting virus-neutralizing antibody. That type of response is well known with many viral infections.

High antibody concentrations are not necessarily needed to fight off future infections. We only require enough antibody to provide assistance to the innate immune system to stop a new exposure to the virus from establishing infection. However, we must be mindful that each new antibody study may bring different findings, resulting in the need to readjust our understanding

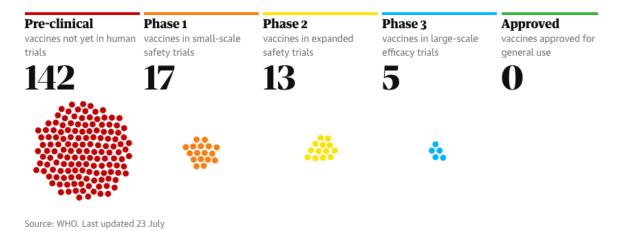
3) How close are we to a vaccine?

Researchers around the world are racing to develop a vaccine against Covid-19, with more than 140 candidates now tracked by the World Health Organization (WHO). Vaccines normally require years of testing and additional time to produce at scale, but scientists are hoping to develop a coronavirus vaccine within 12 to 18 months.

How are vaccines tested?

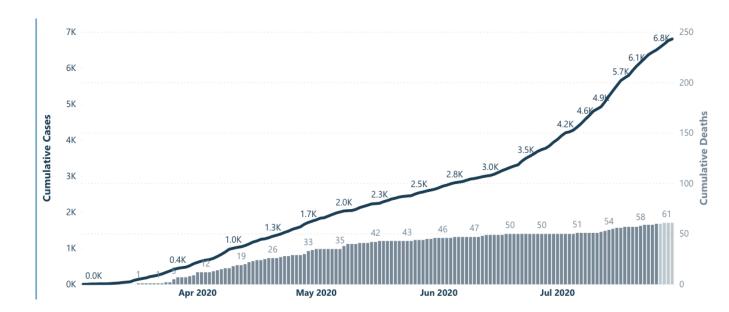
- In the pre-clinical stage of testing, researchers give the vaccine to animals to see if it triggers an immune response.
- In Phase 1 of clinical testing, the vaccine is given to a small group of people to determine whether it is safe and to learn more about the immune response it provokes.
- In phase 2, the vaccine is given to hundreds of people so scientists can learn more about its safety and correct dosage.
- In Phase 3, the vaccine is given to thousands of people to confirm its safety including rare side effects and

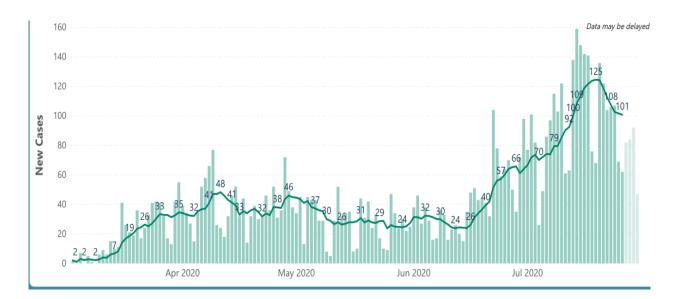
effectiveness. These trials involve a control group that is given a placebo.



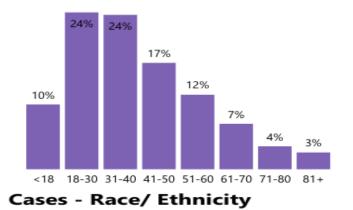
SAN FRANCISCO

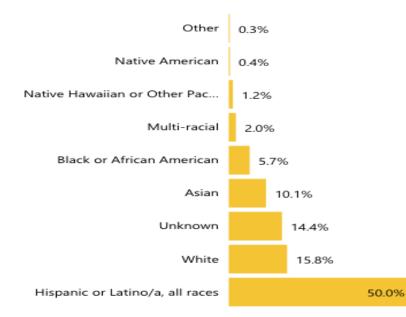
Confirmed cases: 6,811 — up by 148 (2.3%) since Friday Hospitalized: 123 — up by 2 as of 7/31, with 41 in ICU beds Deaths: 61 — up by 2 since Friday











1) "Let me be clear. We are in a major surge of COVID-19," said Grant Colfax, head of SF Department of Public Health.

Hospitalizations have been rising in San Francisco and across the Bay Area for the last several weeks, and Colfax said in a press conference that hospitalizations peaked this week and it was "higher than it's ever been before." Hospitalization data shows San Francisco had 123 confirmed and suspected patients in hospitals as of Wednesday, with 41 of those in ICU beds.

The case count has been climbing in San Francisco on average about 2 percent each day in July. In June, the daily uptick averaged about 1.15 percent. And the Department of Public Health reports that the sevenday rolling average of percent-positives among San Franciscans being tested for the virus climbed to 4.8 percent last week, after hovering around 2 or 3 percent for two months.

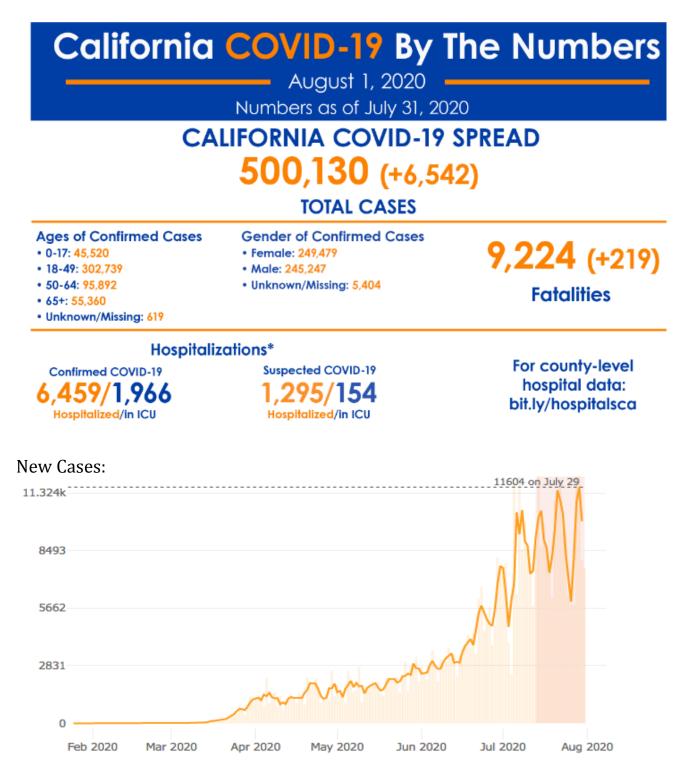
At the current rate of virus spread in the city, Colfax said, we could be seeing 750 hospitalizations by mid-October, and more than 600 deaths. "Let me be clear. We are in a major surge of COVID-19," said Colfax on Thursday. "The virus is moving fast and more people are getting seriously ill."

The rise in hospitalizations is the main reason San Francisco is on the state's COVID-19 watch list and the reason it has paused its reopening plan indefinitely.

2) SF to open new non-Covid hospital in the Presidio as sure in hospitalizations looms

The city is now opening the new hospital site on Gorgas Avenue in the Presidio that will have capacity for 93 patients who do not have the coronavirus. In order to create more space in San Francisco's hospital, the city has converted a building in the Presidio into a care facility. It's open now, should the city need to transfer low acuity, non-COVID-19 patients out of overrun hospitals.

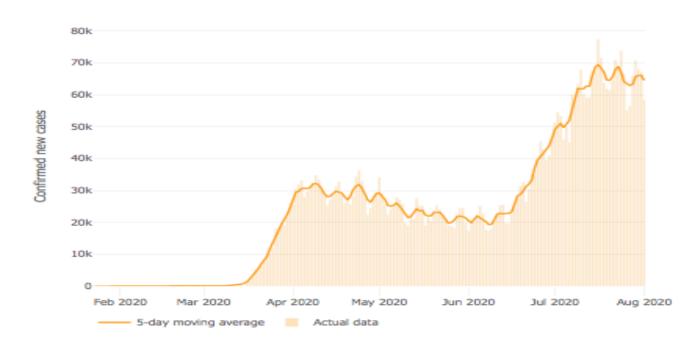
CALIFORNIA



US

US Confirmed Cases: 4,620,444 US Deaths: 154,447

The first case of COVID-19 in US was reported 192 days ago on 1/21/2020. Since then, the country has reported 4,620,444 cases, and 154,447 deaths.

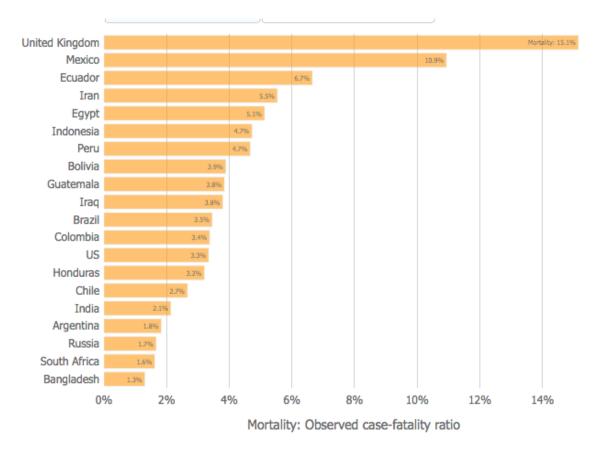


1) U.S. Records A New Coronavirus Death Every Minute

U.S. coronavirus deaths are rising at their fastest rate in two months and have increased by 10,000 in the past 11 days. One person in the United States died about every minute from COVID-19 on Wednesday as the national death toll surpassed 150,000, the highest in the world.

A spike in infections in Arizona, California, Florida and Texas this month has overwhelmed hospitals. The rise has forced states to make a U-turn on reopening economies that were restricted by lockdowns in March and April to slow the spread of the virus. Texas leads the nation with nearly 4,300 deaths so far this month, followed by Florida with 2,900 and California, the most populous state, with 2,700.

GLOBAL Global Confirmed Cases: 17,703,272 Global Deaths: 681,580



RECOMMENDATIONS

While we have no new recommendations at this time, we think it is important to be aware that the situation in San Francisco is growing more serious. SF is seeing an increase in cases and hospitalizations, and some increase in deaths. In SF, face covering rules have been expanded to require masking for everyone over age 9 when you are within 6 feet of another person, in outdoor and indoor settings. SF is on the State's watch list, and all reopenings have been paused. And all this is occurring after 4 months of largely sheltering in place, with effective treatments and vaccines still under development. Members are likely to be experiencing increased stress and may be confused by the volume of information, which can at times seem contradictory. As we recommended in a previous report, it may be timely to reach out to those members who are more vulnerable through phone calls made by volunteers. We also encourage staff and Kate to promote the weekly Covid Coffee Chats and the availability of these reports on the SFV website when opportunities arise.