



San Francisco Village

**COVID - 19
Research and Advisory Team:
Report and Recommendations - #16
June 28, 2020**

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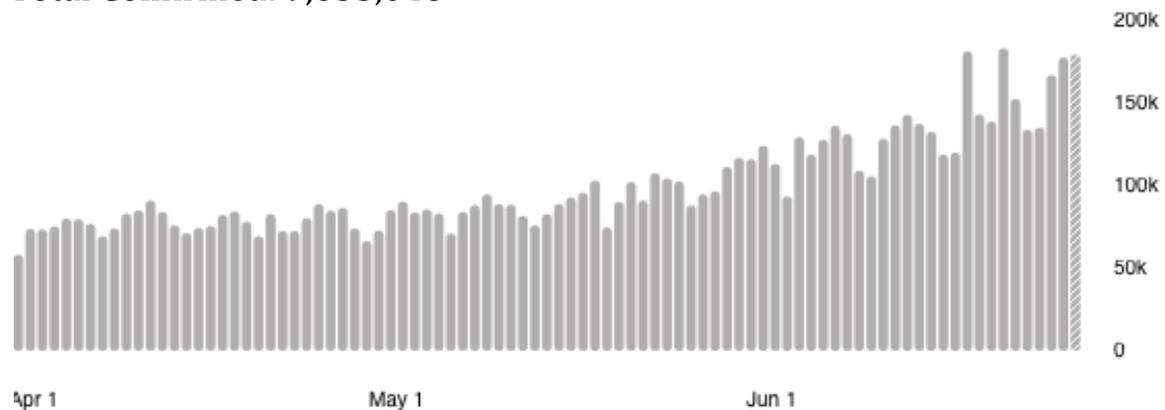
This report contains a summary of the key updates on the status of Covid-19 that are more evident since our last report (June 21), along with our current recommendations for actions for SFV to consider taking. Sources include: CDC, WHO, SFDPH, CA DPH, Science Journal, Nature Journal, New England Journal 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

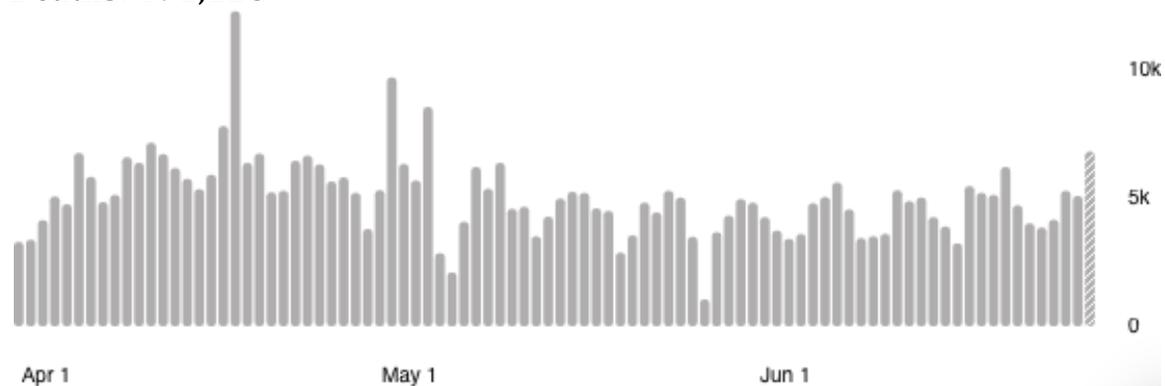
GLOBAL

New Cases: 179,316

Total Confirmed: 9,653,048



Deaths: 491,128



1) Coronavirus May Be a Blood Vessel Disease

In April, blood clots emerged as one of the many mysterious symptoms attributed to Covid-19, a disease that had initially been thought to largely affect the lungs in the form of pneumonia. Quickly after came reports of young people dying due to coronavirus-related strokes. Next it was Covid toes — painful red or purple digits.

All of these symptoms have impairment in blood circulation in common. Add in the fact that 40% of deaths from Covid-19 are related to cardiovascular complications, and the disease starts to look like a vascular infection instead of a purely respiratory one.

Months into the pandemic, there is now a growing body of evidence to support the theory that the novel coronavirus can infect blood vessels, which could explain not only the high prevalence of blood clots, strokes, and heart attacks, but also provide an answer for the diverse set of head-to-toe symptoms that have emerged.

In a paper published in April in the scientific journal *The Lancet*, a team of scientists discovered that the SARS-CoV-2 virus can infect the endothelial cells that line the inside of blood vessels. Endothelial cells protect the cardiovascular system, and they release proteins that influence everything from blood clotting to the immune response. The scientists showed damage to endothelial cells in the lungs, heart, kidneys, liver, and intestines in people with Covid-19.

The concept that's emerging is that this is not a respiratory illness alone, this is a respiratory illness to start with, but it is actually a vascular illness that kills people through its involvement of the vasculature.

The good news is that if Covid-19 is a vascular disease, there are existing drugs that can help protect against endothelial cell damage. In another *New England Journal of Medicine* paper that looked at nearly 9,000 people with Covid-19, the study showed that the use of statins and ACE inhibitors were linked to higher rates of survival.

2) How superspreading is fueling the pandemic

We now know that, on average, people with the coronavirus infect about two other people; in fact, most actually pass the virus to just one other person, or to no one else at all. But some people go on to infect

many more, often before they even get symptoms. Many of these transmission chains begin with “superspreading” events, where one person (usually in a crowded indoor space) passes the virus to dozens of others. Early contact tracing studies suggest these events have been a large driver of transmission around the world. By some estimates, 10 percent of people have been causing 80 percent of new infections.

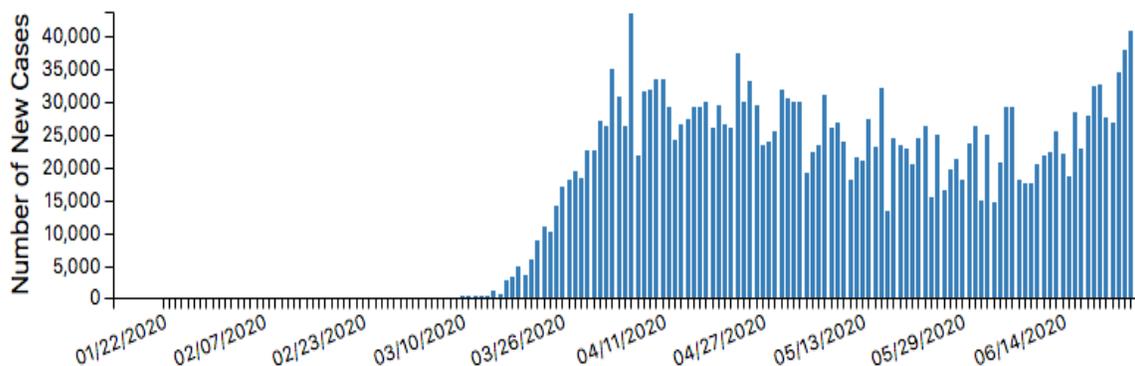
Superspreading also appears to be more likely with SARS-CoV-2 because people typically have the highest level of the virus in their system (making them infectious) right before they develop symptoms. So thousands of people with active Covid-19 infections continue to go about their lives not knowing that they could be spreading the disease. But it also has to do with a person’s “viral load” — an amount that actually tends to go down as symptoms wear on. A May study of samples collected from patients, published in *Clinical Infectious Disease*, suggests that people who had symptoms for more than eight days might not actually be very infectious.

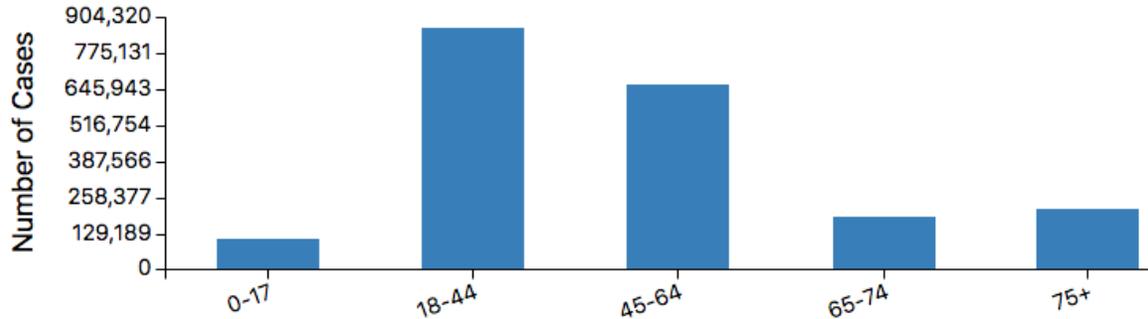
In addition to physical distancing measures, limits on capacity, and requiring mask-wearing, governments and businesses could also take into account other details we are learning about superspreading events, like loud environments that encourage more droplet-filled speech.

UNITED STATES

Total Cases: 2,414,870

Total Deaths: 124,325





1) CDC adds 3 new coronavirus symptoms to list.

Congestion or runny nose, nausea, and diarrhea were added, joining the federal agency's list that already included fever or chills, cough, shortness of breath or difficulty breathing, fatigue, muscle or body aches, headache, new loss of taste or smell and sore throat.

2) CDC updates, expands list of people at risk of severe COVID-19 illness.

Based on a detailed review of available evidence to date, CDC has updated and expanded the list of who is at increased risk for getting severely ill from COVID-19. The CDC has removed the specific age threshold from the older adult classification. CDC now warns that among adults, risk increases steadily as you age, and it's not just those over the age of 65 who are at increased risk for severe illness. Age is an independent risk factor for severe illness, but risk in older adults is also in part related to the increased likelihood that older adults also have underlying medical conditions.

These changes increase the number of people who fall into higher risk groups. An estimated 60 percent of American adults have at least one chronic medical condition. Obesity is one of the most common underlying conditions that increases one's risk for severe illness – with about 40 percent of U.S. adults having obesity. The more underlying medical conditions people have, the higher their risk.

Studies further add to the growing body of research on risk by comparing data on pregnant and nonpregnant women with laboratory-confirmed SARS-CoV-2 infection. Pregnant women were significantly more likely to be hospitalized, admitted to the intensive care unit, and receive mechanical ventilation than nonpregnant women; however, pregnant women were not at greater risk for death from COVID-19.

People of any age with the following conditions are at increased risk of severe illness from COVID-19:

- Chronic kidney disease
- COPD (chronic obstructive pulmonary disease)
- Immunocompromised state (weakened immune system) from solid organ transplant
- Obesity (body mass index [BMI] of 30 or higher)
- Serious heart conditions, such as heart failure, coronary artery disease, or cardiomyopathies
- Sickle cell disease
- Type 2 diabetes mellitus

People with the following conditions might be at an increased risk for severe illness from COVID-19:

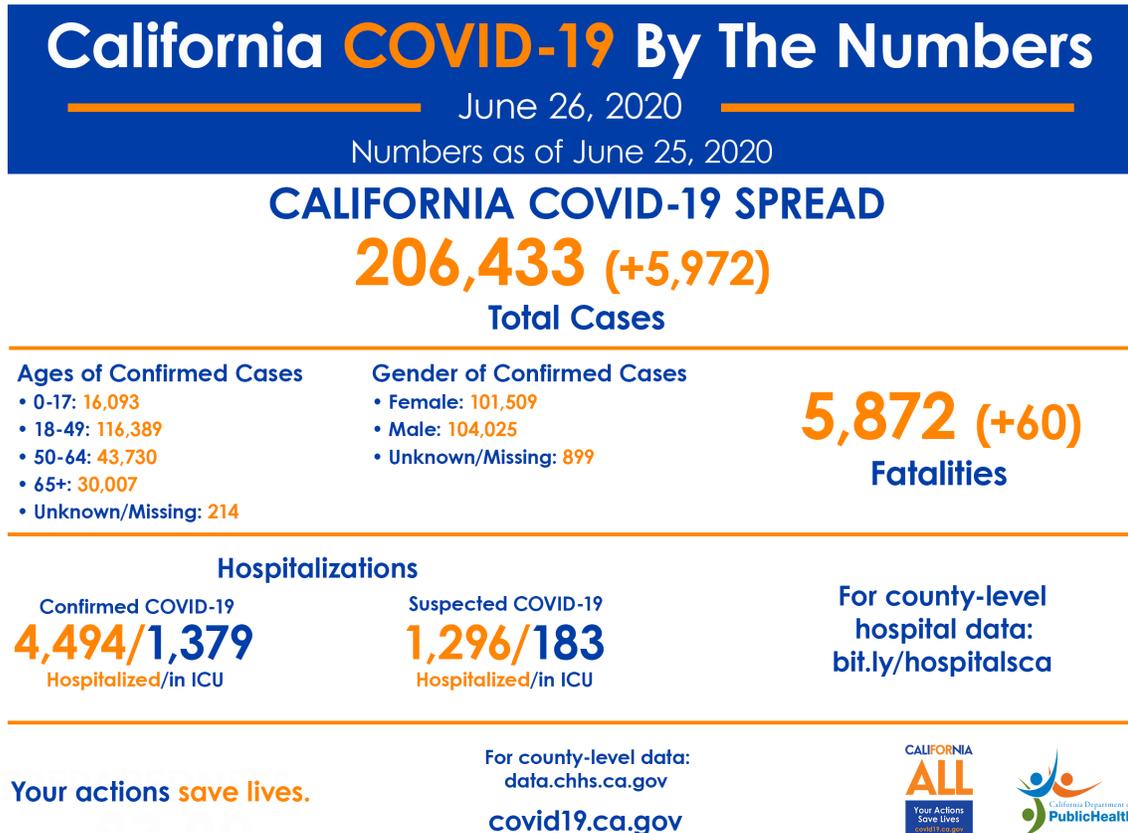
- Asthma (moderate-to-severe)
- Cerebrovascular disease (affects blood vessels and blood supply to the brain)
- Cystic fibrosis
- Hypertension or high blood pressure
- Immunocompromised state (weakened immune system) from blood or bone marrow transplant, immune deficiencies, HIV, use of corticosteroids, or use of other immune weakening medicines
- Neurologic conditions, such as dementia
- Liver disease
- Pregnancy
- Pulmonary fibrosis (having damaged or scarred lung tissues)
- Smoking
- Thalassemia (a type of blood disorder)
- Type 1 diabetes mellitus

3) Initial COVID-19 infection rate may be 10 times greater than originally reported

Government experts believe more than 20 million Americans could have contracted the coronavirus, 10 times more than official counts, indicating many people without symptoms have or have had the disease, senior administration officials said. The estimate, from the Centers for Disease Control and Prevention, is based on serology testing used to determine the presence of antibodies that show whether an individual has had the disease, the officials said. Many epidemiologists

believe that the initial COVID-19 infection rate was undercounted due to testing issues, asymptomatic and alternatively symptomatic individuals, and a failure to identify early cases.

CALIFORNIA



1) Surge in infections in California

Governor Gavin Newsom reported that 25% of the State’s COVID infections happened in the past 2 weeks -- 56,000 new cases. Driving that surge is the growing number of young people getting sick. The virus appears to be spreading more in younger age groups now, officials say. As of Wednesday, 56% of Californians diagnosed with COVID-19 were 18 to 49 years old, though they account for only 43.5% of the state’s population. That figure has risen consistently throughout the outbreak but spiked in recent weeks. In L.A. County, 40% of known coronavirus cases are occurring among those 18 to 40 years old.

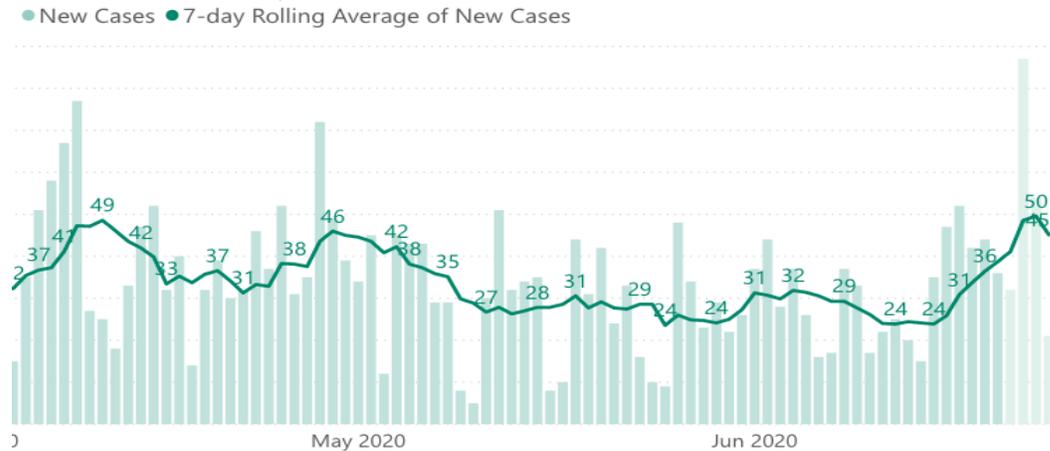
California has reached a new high in the number of hospitalizations related to COVID-19, surpassing the previous peak in late April. As of Sunday the state had 3,702 hospitalized patients with confirmed cases of COVID-19, of which 1,199 were in intensive care. There were an additional 1,102 hospitalized patients with suspected COVID-19.

The majority of new cases in the state are in Southern California and the Central Valley. Los Angeles County has the most hospitalized patients — 1,515 — followed by Orange and Riverside counties.

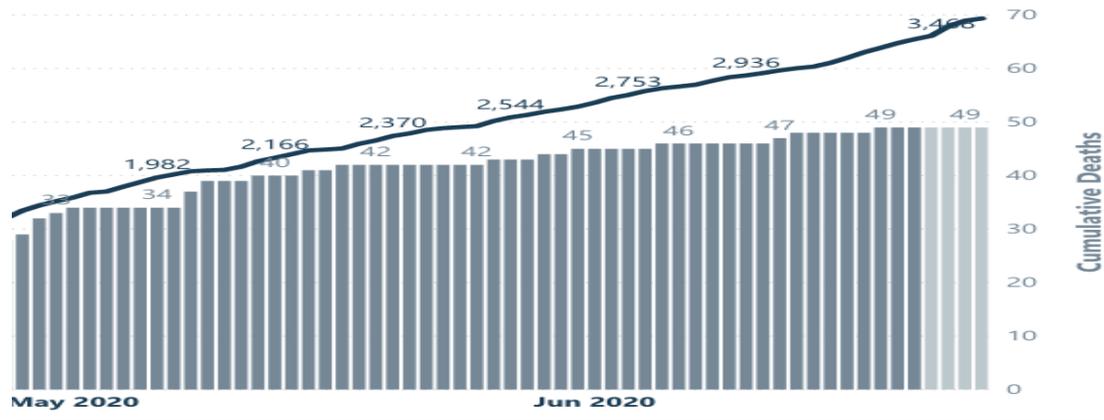
SAN FRANCISCO

Total Tests: 135,170

Total Positives: 3,468



Total Deaths: 49



1) After recording new rise in cases, SF suspends next phase of reopening

San Francisco will not move into the next phase of reopening Monday, Mayor London Breed announced, citing a rise of 103 new cases Thursday. The next step was going to permit some higher-risk businesses to reopen, including hair salons, barbers, museums, zoos, tattoo parlors, massage establishments, nail salons, outdoor swimming and outdoor bars. But this announcement means those business owners will need to continue to wait until an undisclosed date in the future.

"COVID-19 cases are rising throughout CA," Breed stated. "We're now seeing a rise in cases in SF too. Our numbers are still low but rising rapidly. As a result, we're temporarily delaying the re-openings that were scheduled for Monday. Yesterday we saw 103 cases. On June 15, when we first reopened outdoor dining and in-store retail, we had 20. "At our current rate, the number could double rapidly. If that continues & we don't intervene, we'll be at such a high number that our only option would be to shut down. This is why it is important to follow protective health measures and utilize the tools we already have. Everyone needs to wear face coverings, maintain social distance, and practice good hygiene."

RECOMMENDATIONS

1. This report represents an aggregation of current findings about the pandemic and Covid-19 on a weekly basis. Given that public information about the virus is separated across many data sources – news media, public health sites, journals, etc. – and that it can be confusing to know what information is current and reliable, consider including a link to these reports hosted on the SFV website in the regular emails sent to members. These reports could prove very useful to members, and it is likely that, now, few know of their availability on the SFV website.
2. SFV is offering 3 Covid Coffee Chats for members in July – 7/7, 7/21, 7/28 11:00-12:00. Given the recent disturbing news about surges, pauses in reopening, etc., these Chats are even more useful. We suggest that Kate, staff, and Board members promote

these Chats in conversations, regular emails to members, and mentions in other events (where appropriate). Here is a description of the Chats:

The current information about Covid-19 is uncertain and shifting, and questions about transmission avenues, antibody effect, infection surges, treatment and vaccine research, and safety protocols abound. The great majority of information about all these areas is not specific to, and may not be applicable to, older populations and those with chronic health conditions. This leaves us confused about what to believe, and uncertain about the precautions we want to take as things open up. This session is an informal member-to-member chat to give us an opportunity to connect with each other, share our experiences, and learn from each other. The chats will be facilitated by SFV Board members Bill Haskell, Gretchen Addi, and Barbara Kivowitz