



San Francisco Village

COVID – 19
Research and Advisory Team:
Report and Recommendations #23
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SFV Members:
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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 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) Effectiveness of different types of masks

A group of researchers at Duke University created a simple technique to analyze the effectiveness of various types of masks, which have become a critical component in stopping the spread of the virus.

Researchers tested 14 commonly available masks including a professionally fitted N95 mask, usually reserved for health care workers. First the test was performed with a speaker talking without wearing a mask. Then they did it again while a speaker was wearing a mask. Each mask was tested 10 times.

The most effective mask was the fitted N95. Three-layer surgical masks and cotton masks, which many people have been making at home, also performed well. Neck fleeces, also called gaiter masks and often used by runners, were the least effective. In fact, wearing a fleece mask resulted in a higher number of respiratory droplets because the material seemed to break down larger droplets into smaller particles that are more easily carried away with air. Folded bandanas and knitted masks also performed poorly and did not offer much protection.

2) Growing Body Of Evidence Suggests Masks Protect Those Wearing Them, Too

The less virus that you get in, the less sick you're likely to be. So not only do masks protect others they protect you. "Even if you do get infection, it looks like the evidence is showing us that you're getting less virus and that you're less likely to get sick," said UCSF infectious disease expert Dr. Monica Gandhi. Dr. Gandhi is lead author of the report published in the Journal of General Internal Medicine. Dr. Gandhi and her co-authors reported that when workers wore masks during an outbreak in an Oregon seafood plant and an Arkansas chicken plant, 95 percent of the workers who were infected remained asymptomatic. "All this evidence leads us to believe that the mask filters out viral particles. It makes you have less in and you're less likely to get sick," Dr. Gandhi explained.

3) Infectious Coronavirus may spread much farther than 6 feet in indoor spaces with poor ventilation

Now a team of virologists and aerosol scientists has produced confirmation of infectious virus in the air. A research team at the University of Florida succeeded in isolating live virus from aerosols collected at a distance of seven to 16 feet from patients hospitalized with Covid-19 — farther than the six feet recommended in social distancing guidelines.

Several experts noted that the distance at which the team found virus is much farther than the six feet recommended for physical distancing. “We know that indoors, those distance rules don’t matter anymore,” Dr. Schofield said. It takes about five minutes for small aerosols to traverse the room even in still air, she added. The six-foot minimum is “misleading, because people think they are protected indoors and they’re really not,” she said.

4) Long after a Covid-19 infection, mental and neurological effects can still linger

Early on, patients with both mild and severe Covid-19 say they can’t breathe. Now, after recovering from the infection, some of them say they can’t think.

Even people who were never sick enough to go to a hospital, much less lie in an ICU bed with a ventilator, report feeling something as ill defined as “Covid fog” or as frightening as numbed limbs. As many as 1 in 3 patients recovering from Covid-19 could experience neurological or psychological after-effects of their infections, reflecting a growing consensus that the disease can have lasting impact on the brain.

Beyond the fatigue felt by “long haulers” as they heal post-Covid, these neuropsychological problems range from headache, dizziness, and lingering loss of smell or taste to mood disorders and deeper cognitive impairment. Dating to early reports from China and Europe, clinicians have seen people suffer from depression and anxiety. Muscle weakness and nerve damage sometimes mean they can’t walk. Doctors have concerns that patients may also suffer lasting damage to their heart, kidneys, and liver from the inflammation and blood clotting the disease causes.

No one can yet tell patients with neurological complications when, or if, they'll get better, as doctors and scientists strive to learn more about this coronavirus with each passing day. Their guideposts are the experience they've gained treating other viruses and delirium after ICU stays, sparse results from brain autopsies, and interviews with patients who know something is just not right.

"We would say that perhaps between 30% and 50% of people with an infection that has clinical manifestations are going to have some form of mental health issues," said Teodor Postolache, professor of psychiatry at the University of Maryland School of Medicine. "That could be anxiety or depression but also nonspecific symptoms that include fatigue, sleep, and waking abnormalities, a general sense of not being at your best, not being fully recovered in terms of the abilities of performing academically, occupationally, potentially physically."

5) USC researchers have found the likely order in which COVID-19 symptoms first appear.

The findings show that infected people will likely experience fever, then cough and muscle pain, followed by nausea, and/or vomiting, and diarrhea. Knowing the order of COVID-19's symptoms may help patients seek care promptly or decide sooner rather than later to self isolate, according to scientists at the USC Michelson Center for Convergent Bioscience. The information may also help doctors rule out other illnesses, or help doctors plan how to treat patients, and perhaps intervene earlier in the disease.

"This order is especially important to know when we have overlapping cycles of illnesses like the flu that coincide with infections of COVID-19," said Kuhn, a USC professor of medicine, biomedical engineering, and aerospace and mechanical engineering. "Doctors can determine what steps to take to care for the patient, and they may prevent the patient's condition from worsening."

Fever and cough are frequently associated with a variety of respiratory illnesses, including influenza, Middle East Respiratory Syndrome and Severe Acute Respiratory Syndrome. But the timing and symptoms in the upper and lower gastrointestinal tract set COVID-19 apart. Given

that there are now better approaches to treatments for COVID-19, identifying patients earlier could reduce hospitalization time.

To determine coronavirus symptom chronology, the authors analyzed more than 55,000 confirmed coronavirus cases in China collected from Feb. 16 to Feb. 24 by the World Health Organization. They also studied a dataset of nearly 1,100 cases collected from Dec. 11 through Jan. 29 by the China Medical Treatment Expert Group via the National Health Commission of China.

SAN FRANCISCO

Total Tested: 316,343

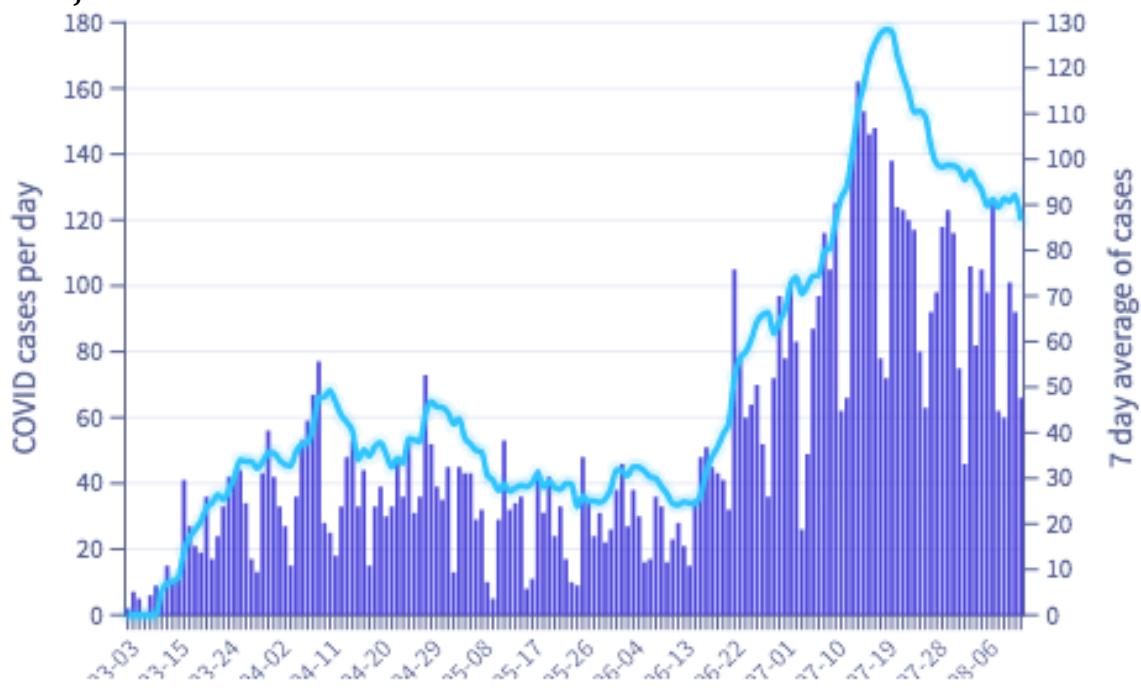
Confirmed cases: 8,157 — up by 104 (1.3%) since Friday

Hospitalized: 110 — down by 6 as of 8/13, with 34 in ICU beds

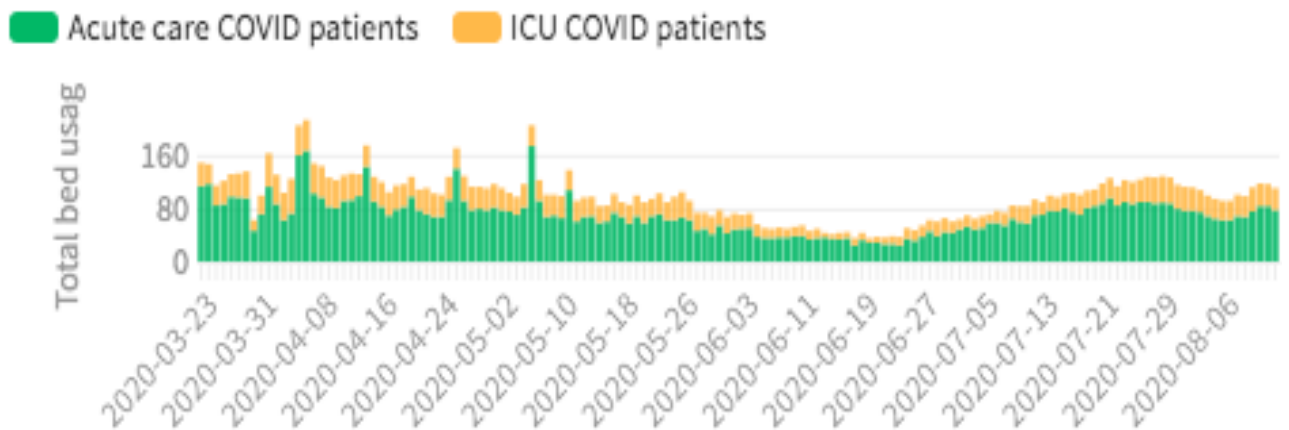
Deaths: 69 — up by 0 since Friday

1) SF numbers

The seven-day average of daily cases for the week ending August 8 was 89, more or less where we've been since the end of July. Though “flattening”, this figure works out to an average of 10.3 per 100,000 residents, well within the red alert zone, where the number has been since June 22.



Hospitalizations are ticking upward in San Francisco this week, as case counts go down. It looked as though hospitalizations in SF had peaked in late July with a total of 128 confirmed and suspected patients. That number dropped down to 91 last week, but it's ticked back up to 116 as of the middle of this week — with 102 of those confirmed by lab tests. It could be a blip, but the fact that hospitalizations aren't dropping as they have been in other counties may be some cause for concern. Meanwhile, only nine new deaths have been recorded in the city since July 23. The seven-day average of new cases per day is falling in SF, but it is still three times as high (91 vs. 30) as it was in mid-June.



CALIFORNIA

California COVID-19 By The Numbers

August 15, 2020

Numbers as of August 14, 2020

CALIFORNIA COVID-19 SPREAD

613,689 (+12,614)
CASES

Ages of Confirmed Cases

- 0-17: 59,682
- 18-49: 369,772
- 50-64: 116,986
- 65+: 66,403
- Unknown/Missing: 846

Gender of Confirmed Cases

- Female: 308,346
- Male: 298,738
- Unknown/Missing: 6,605

11,147 (+151)

Fatalities

Hospitalizations

Confirmed COVID-19
5,112/1,631
Hospitalized/in ICU

Suspected COVID-19
1,215/181
Hospitalized/in ICU

For county-level
hospital data:
bit.ly/hospitalasca

Your actions **save lives.**

For county-level data:
data.chhs.ca.gov
covid19.ca.gov



1) Young adults now represent nearly half of all Covid cases in SF and over 1/3 of all cases in California

The shift in demographics of the COVID-19 pandemic over the last two months is now abundantly clear: Young adults in California between the ages of 18 and 40 appear to be the primary carriers and spreaders of the virus. And while they may require hospitalization in fewer numbers than older adults, they are far from immune from the serious symptoms that leave people debilitated for months, or longer.

As of last week, younger people between the ages of 18 and 40 represented 49 percent of all COVID-19 cases in San Francisco, according to data published by the city's Department of Public Health. Meanwhile, people between the ages of 41 and 70 represent just over a third of cases in the city, or 35 percent. For reasons that have still not been definitively determined by researchers, men remain more susceptible than women to infection with the coronavirus.

Between May 1 and August 1, the number of documented cases among Californians between the ages of 18 and 34 shot up nearly 15-fold, from 12,373 to 180,354. And this demographic went from comprising a quarter of the state's cases to 35 percent overall.

In Santa Clara County, similar to San Francisco, people aged 20 to 39 now represent 39 percent of all cases — and a COVID outpatient clinic at Stanford now says that 55 percent of its patients are under the age of 40, up from 25 percent in April. A July study suggests that one in three young people is still susceptible to a severe case — with smoking being the primary risk factor.

2) California coronavirus deaths double, with rural areas and suburbs hit hardest

California's second surge of the coronavirus has resulted in a near doubling of weekly deaths since the spring — with almost 1,000 fatalities in the last week alone — and radically shifted the geography of the outbreak. Suburban and agricultural areas that had been relatively spared during California's first surge of the virus are now being ravaged. And urban areas such as Los Angeles County and the San Francisco Bay Area are reporting fatality numbers just as high, if not higher, than in the spring.

The Central Valley has become home to one of the worst coronavirus hot spots in the country. In eight southern Central Valley counties, weekly COVID-19 deaths have jumped from about 20 a week in April to nearly 200 a week in the last two weeks. San Joaquin Valley residents make up 20% of recent deaths statewide, even though they account for about 10% of the state's population.

The worsening death toll in the Central Valley comes as the coronavirus has spread rapidly among low-wage essential workers in jobs such as agriculture and food processing. Major outbreaks have been reported at a Foster Farms poultry processing plant in Merced County; Central Valley Meat Co., a meatpacking facility in Kings County; and Ruiz Foods, a frozen-food packager in Tulare County.

In the southern part of the state, suburban regions are also experiencing a surge in deaths. San Bernardino County recorded 128 coronavirus fatalities in the seven-day period that ended Monday, almost quadruple the weekly death toll of 34 the week before. Riverside County's weekly death toll of 83 last week was about double what it was in April. Orange County tallied 73 deaths last week; for the week of April 21, Orange County recorded six deaths. Ventura County recorded 16 deaths last week; that county reported fewer than five deaths a week in April.

The San Joaquin Valley is being adversely affected because the region has an extraordinary number of residents who work as low-income, frontline workers. An analysis by the labor center found that 34% of employees in the San Joaquin Valley work in frontline jobs where there is an increased risk of contracting COVID-19 because employees can't work from home. More than 40% of workers in Madera County are essential workers — making it the county with the third-highest share of these workers of any other county nationwide. By contrast, about 18% to 22% of employees in L.A., Orange and San Diego counties and the Bay Area work in frontline essential jobs, such as in agriculture, mining, food manufacturing, grocery retail, transportation, warehousing and healthcare.

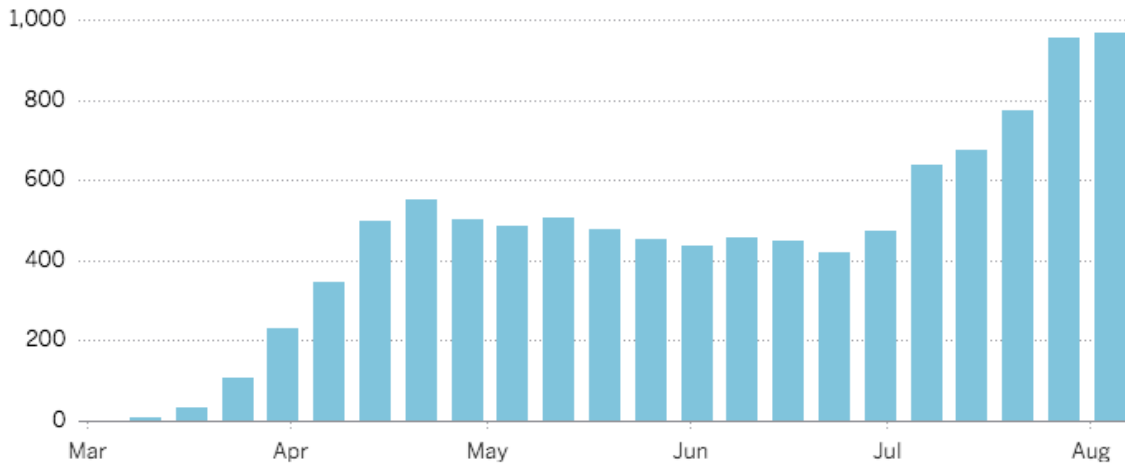
The regions of California hit hardest in the earliest phase of the pandemic — the Bay Area and L.A. County — have seen weekly deaths return to — or exceed — springtime levels. The Bay Area has seen a death tally worse even than its springtime levels. The region recorded as many as 67 deaths in a single week in April; two weeks ago, the Bay Area recorded 81 deaths. Last week there were 72 fatalities.

San Diego County recorded its two worst weekly fatality counts in mid-July, tallying an average of 56 weekly deaths over two weeks — more

than double its April average. In the last two weeks, weekly fatalities are averaging about 31 a week.

California COVID-19 deaths

Weekly death tolls have nearly doubled since April.



3) California judges lift coronavirus eviction ban

The Judicial Council of California on Thursday voted to end the statewide eviction moratorium next month, reopening courts to landlords and pressuring Gov. Gavin Newsom and lawmakers to address a potential housing crisis. Courts will be allowed to process evictions after midnight, Sept. 1, although a patchwork of more than 100 local laws could prevent delinquent tenants from being displaced. Most Bay Area counties and cities have passed renter protections during the coronavirus pandemic, although many are scheduled to expire in August.

UNITED STATES

Cases: 5,375,216

Deaths: 169,640

1) The US's coronavirus epidemic is among the worst in the world.

It's now clear the United States has failed to contain its Covid-19 epidemic, with case counts far ahead of other developed nations and

more than 1,000 deaths reported a day for over two weeks and counting.

Asked if America's coronavirus outbreak is the worst in the world, White House adviser and National Institute of Allergy and Infectious Diseases director Anthony Fauci admitted it was on August 5: "Yeah, it is. Quantitatively, if you look at it, it is. I mean, the numbers don't lie."

The country did bring Covid-19 cases to a plateau, but not a significant decline, by April and May. But then several states rushed to reopen, with a significant portion of the public not following recommendations for masking and physical distancing. The original hot spots were the New York region, but over time, as states moved to reopen, the virus shifted to the South, West, and eventually, the rest of the country.

The US is also in the top 10 countries for Covid-19 deaths after adjusting for population, with more than 490 deaths per million people. With deaths in the US totaling more than 1,000 a day in late July and August, America's rank on this metric could get even worse in the coming weeks.

For more information of the State of Covid-19 in the US, see this excellent article:

<https://www.vox.com/future-perfect/21353986/coronavirus-covid-pandemic-usa-america-maps-charts-data>

2) Any attempt to get coronavirus herd immunity would lead to massive death tolls, Fauci warns

If the United States allowed coronavirus infections to run rampant to achieve possible herd immunity, the death toll would be massive, especially among vulnerable people, the nation's top infectious doctor said. "You look at the United States of America, with our epidemic of obesity as it were. With the number of people with hypertension. With the number of people with diabetes. If everyone got infected, the death toll would be enormous and totally unacceptable," Fauci said.

It is still unclear whether survivors of Covid-19 have immunity, though some have still suggested that allowing Covid-19 to plow through populations might help reach herd immunity more quickly if possible --

but it would be a disaster for hospitals. Doctors would be overwhelmed and more people would die, not just from the coronavirus but from other infections, too.

3) If you recover from the virus, you may be protected for at least three months, the C.D.C. says.

The Centers for Disease Control and Prevention updated their guidance recently to suggest that people who have recovered from the virus can safely mingle with others for three months. It was a remarkable addition to the body of guidance from the agency, and its first indication that immunity to the virus may persist for at least three months. Even so, the C.D.C. still recommends physical distancing, mask-wearing and other precautions.

“People who have tested positive for Covid-19 do not need to quarantine or get tested again for up to three months as long as they do not develop symptoms again,” the guidance said. “People who develop symptoms again within three months of their first bout of Covid-19 may need to be tested again if there is no other cause identified for their symptoms.”

RECOMMENDATIONS

Given the longevity and the severity of the pandemic in California, and the uptick in numbers in San Francisco, SFV might consider offering an expert talk on coping with the stress of living through this pandemic. In addition, SFV might consider targeted outreach efforts to those members who are most vulnerable, and least connected (we recognize that this may be in process already).