



San Francisco Village

**COVID - 19
Research and Advisory Team:
Report and Recommendations #22
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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.

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RECENT FINDINGS

1) Covid-19 patients not showing symptoms may carry just as much virus as those who do

Covid-19 patients not showing symptoms may have similar amounts of the novel coronavirus in their bodies as those who do show symptoms. The study, published in the journal JAMA Internal Medicine, included data on 303 Covid-19 patients who were in isolation in March at a community treatment center in South Korea. The patients, mostly young adults, had a median age of 25.

Among those patients, 193 of them -- or 63.7% -- were showing symptoms at the time of isolation, according to the study. 110 patients appeared not to show symptoms. Only 19.1% of those asymptomatic patients went on to develop symptoms during isolation compared with 80.9% who remained asymptomatic and did not develop symptoms during an average of 24 days they were followed in the study.

The study found that the viral load in asymptomatic patients -- those who were not showing symptoms -- appeared to be similar to that in patients showing symptoms. The researchers noted in their study that viral loads in asymptomatic patients from the time of their diagnosis to being discharged from the community treatment center tended to decrease more slowly than those in both symptomatic and pre-symptomatic patients.

Separate research previously has suggested that "silent transmission" -- the spread of virus by someone with no obvious symptoms -- could be responsible for half of all novel coronavirus cases in the United States.

Transmission via people with no symptoms, or during the few days before symptoms are apparent, may be a primary driver of Covid-19 spread, according to a previous study published in July in the Proceedings of the National Academy of Sciences.

2) Convalescent plasma is showing success as a treatment

US hospitals are now treating around 1,500 patients a day with antibodies found in the blood of COVID-19 survivors.

On Monday, federal health officials kicked off two large clinical trials of synthetic antibodies to treat mild, moderate, and hospitalized coronavirus cases. A biotech firm is starting a related trial in nursing homes. And the FDA is expected to soon give emergency authorization to treating patients with the “convalescent plasma” of COVID-19 survivors — the part of blood that is rich in antibodies.

It is now administered to an estimated 1,500 patients a day in around 2,000 hospitals nationwide. And antibodies look only more likely to expand in use until a vaccine arrives. A preliminary analysis of data from about 50,000 patients found a 10% drop in deaths among critically ill hospitalized COVID-19 patients given plasma with higher concentrations of antibodies compared to those given lower dose ones. But since plasma treatment relies on people continuing to get sick and recover from COVID-19, it's not a permanent solution. Other treatment options involving antibodies, including manufacturing them from scratch, could hold longer-term promise.

It makes sense that antibody transfusions would be most effective early in the infection, when virus levels are highest in COVID-19 patients, said Casadevall. Patients on ventilators later in the course of the disease appear often to be dying from their immune system overreacting and tracking their own organs, when more antibodies could be harmful. That explains why drugs like dexamethasone, which tamps down immune system responses, are helpful later on in an infection.

If convalescent plasma receives an emergency use authorization designation from the FDA, it will join the antiviral drug remdesivir and the steroid drug dexamethasone as the only clearly useful treatments for COVID-19.

3) Dr. Anthony Fauci says chance of coronavirus vaccine being highly effective is 'not great.'

White House coronavirus advisor Dr. Anthony Fauci said Friday that the chances of scientists creating a highly effective vaccine — one that provides 98% or more guaranteed protection — for the virus are slim. Scientists are hoping for a coronavirus vaccine that is at least 75% effective, but 50% or 60% effective would be acceptable, too.

The Food and Drug Administration has said it would authorize a coronavirus vaccine so long as it is safe and at least 50% effective. Dr. Stephen Hahn, the FDA's commissioner, said last month that the vaccine or vaccines that end up getting authorized will prove to be more than 50% effective, but it's possible the U.S. could end up with a vaccine that, on average, reduces a person's risk of a Covid-19 infection by just 50%.

4) Promising Covid-19 treatment offers test run for vaccine distribution

An antibody treatment designed to protect against coronavirus could be available as early as this fall -- but only for a fraction of the millions of Americans who might benefit from the treatment.

Companies are already testing monoclonal antibody therapies -- antibodies created in a lab to target Covid-19 -- in humans. The trials are determining whether the antibodies can prevent people from becoming infected and whether the treatments can stave off the worst symptoms of coronavirus when a patient does become infected.

If they are proven effective, they could be available to Americans months before a vaccine is ready. But according to drug-makers, the initial distribution will most likely be left up to the federal government, whose track record on setting up widespread testing, distributing personal protective gear and dispensing other drugs such as remdesivir to fight coronavirus is already setting off alarms. It's not clear who will make the decisions about where the initial antibody doses go. And there have been allegations against the government of unfair distribution and political favoritism.

Drug-makers insist they're committed to making sure their products wind up with the patients who need them most. Government officials,

meantime, say they're still working out their manufacturing and distribution plans.

But even in the best-case scenario -- even if such an antibody treatment proves effective -- there will likely be only a few hundred thousand doses initially available. The early supply is expected to fall far short of the tens of millions of Americans who could potentially benefit from the treatment.

A study from researchers at Duke University determined the US would need more than 60 million doses of antibody therapies over the next year to treat every American hospitalized with coronavirus, fighting it at home or exposed to it by someone in their household.

Administering antibody treatments is also a challenge. Drug makers are looking at injecting the drugs through IVs or, in the case of preventative doses, possibly via syringe, similar to an insulin injection.

That's easy enough to do in a hospital setting. But senior homes, which have been ravaged by high infection and death rates during the pandemic, are ill equipped. They don't have pharmacies or an abundance of IVs or enough staffers to provide infusions to every patient.

5) Researchers created a test to determine which masks are the least effective

In the study published Friday, researchers with Duke's physics department demonstrated the use of a simple method that uses a laser beam and cell phone to evaluate the efficiency of masks by studying the transmission of respiratory droplets during regular speech.

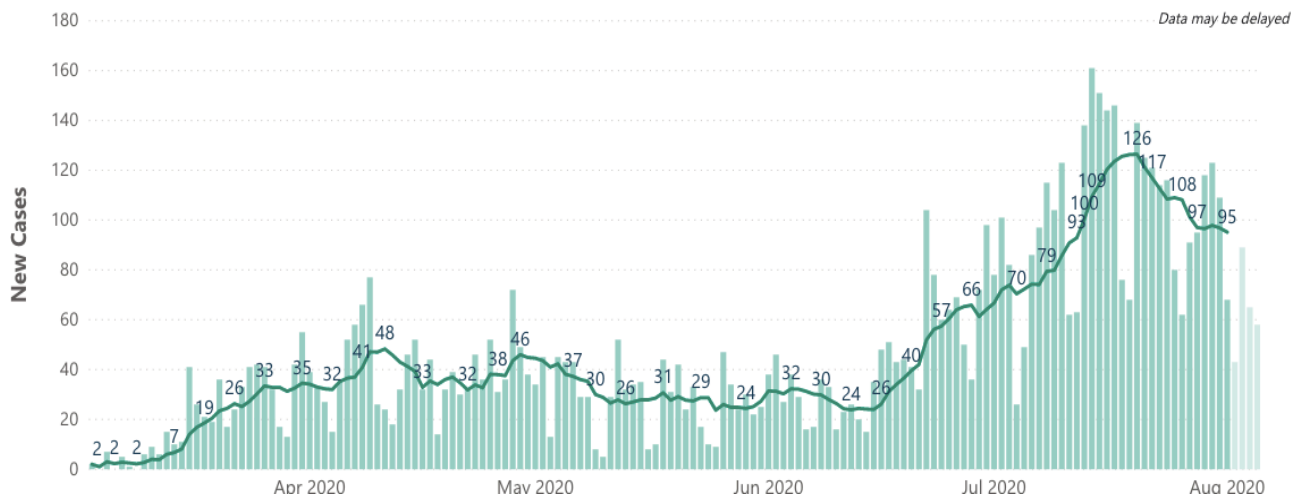
The most effective mask was the fitted N95. Three-layer surgical masks and cotton masks, which many people have been making at home, also performed well.

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.

SAN FRANCISCO

Confirmed cases: 7,432 — up by 106 (1.4%) since Friday
Hospitalized: 90 — down by 1 as of 8/7, with 30 in ICU beds
Deaths: 67 — up by 3 since Friday



1) SF still on watch list

All nine Bay Area counties are on the state's COVID-19 monitoring list and are subject to state-mandated indoor business closures, with analysis showing that only Santa Clara County has a chance of breaking free.

A county must be off of the watch list for 14 days before its schools can hold in-person classes.

There are six different indicators that can land a county on the watch list:

1. A seven-day average of fewer than 150 tests conducted per 100,000 residents
2. More than 100 cases per 100,000 residents over 14 days

3. More than 25 cases per 100,000 residents over 14 days AND a seven-day average of test positivity over 8%
4. A 10% increase in the three-day-average for hospitalizations
5. Having less than 20% of ICU beds available
6. Having less than 25% of ventilators available

Most counties typically find themselves on the list because of the second and fourth indicators. In order to get off the watch list, a county must have no indicators marked for three consecutive days.

San Francisco has 142.7 cases per 100,000 residents over the last 14 days; and a 2.7% decrease in the most recent three-day average for hospitalizations.

2) SF has continued impact from State Covid data reporting tool

While San Francisco's COVID patient data may be somewhat better than other counties due to a move made early in the pandemic with regard to how labs report to the city's health department, it is still seeing the impacts of statewide underreporting.

The city's Department of Emergency Management issued a statement Thursday confirming that the city's COVID data reporting modules are continuing to show undercounts due to a technical issue at the state level that was reported earlier this week. The problem is with the state's electronic disease reporting system, called the California Reportable Disease Information Exchange, or CalREDIE. Possibly due to an overload of new data, or some other issue, CalREDIE numbers have been shown to have discrepancies in multiple counties, though it's still unclear how large the discrepancies are or where they are most prevalent.

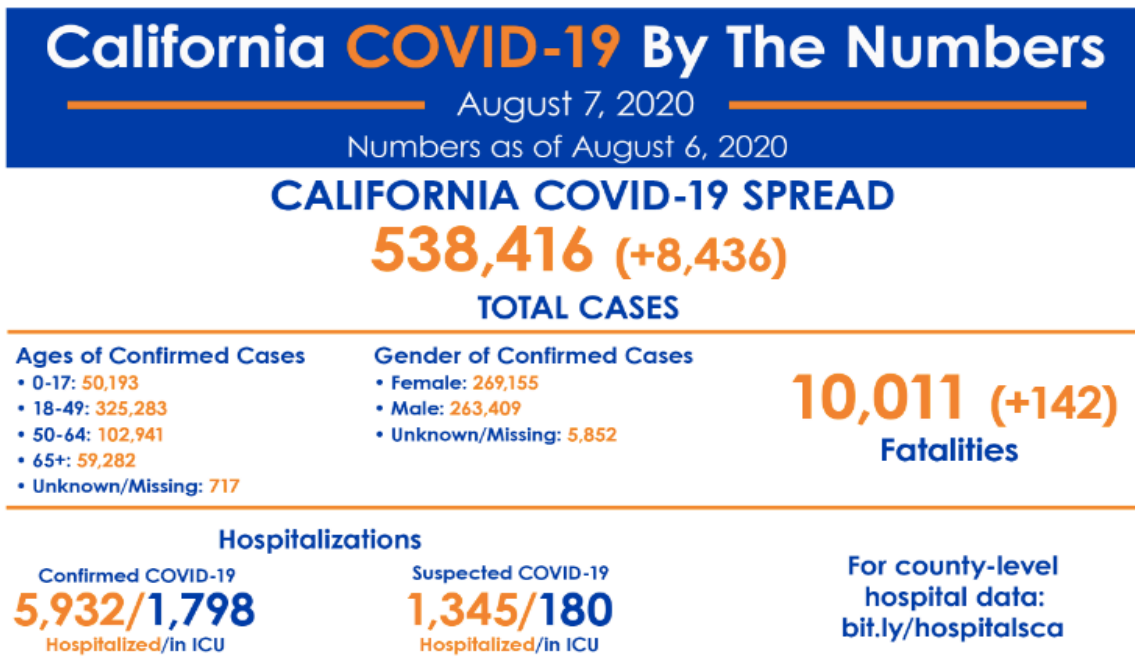
Due to the likely discrepancies, the city says it will temporarily stop updating data on this Key Public Health Indicators page. But daily case counts, hospitalizations, and other data will continue to be reported, with the caveat that the case number represents a likely undercount.

3) SF Library pickup service

The Library is open for limited front door service at the Main Library (starting August 10) and Excelsior Branch (starting August 11). During the phased re-opening, patrons can only reserve items owned by those two locations. All other library locations remain closed. More library locations will be reopened in September 2020.

SFPL To Go is a service that safely delivers requested library materials to patrons at select Library locations. San Francisco Public Library’s version of “curbside pickup”, is a contact-free front door type service where patrons can queue up outside our buildings to pick up their requested books at the library entrance.

CALIFORNIA



New Cases Trend:



1) Glitch in CA state lab test reporting system

California officials say the “glitch” in the state’s lab test reporting system has been fixed. However, more than 300,000 tests for Covid and other infectious diseases remain to be sorted through. Expect elevated numbers of cases and positivity rates over the next week. Officials say that test results for patients were not affected by the glitch. In some Bay Area locations, it takes up to 19 days for patients to get test results. Color, the private lab that analyzes SF tests (along with the City’s public health labs) claims 90% of their results were returned in 24-48 hours, with 50% returned within 24 hours.

Though the “glitch” apparently has meant an undercount of positive cases in the state and various counties, it did not affect hospitalization data. Over the past week hospitalizations have fallen around the state, including San Francisco.

UNITED STATES

U.S. Confirmed: 4,983,026

U.S. Deaths: 162,181

1) US COVID-19 death toll projected to hit almost 300,000 by December.

An influential novel coronavirus pandemic model now projects that deaths from the disease in the United States could hit almost 300,000 by the start of December.

Researchers at the University of Washington's Institute for Health Metrics and Evaluation say that the United States is headed toward a grim fall in which COVID-19 deaths will nearly double from their current level of 160,000 in the next four months.

America’s COVID-19 death toll is expected to reach nearly 300,000 by December 1; however, consistent mask-wearing beginning today could save about 70,000 lives, according to new data from the Institute for Health Metrics and Evaluation (IHME) at the University of Washington’s School of Medicine.

The US forecast totals 295,011 deaths by December. As of today, when, thus far, 158,000 have died, IHME is projecting approximately 137,000 more deaths. However, starting today, if 95% of the people in the US were to wear masks when leaving their homes, that total number would decrease to 228,271 deaths, a drop of 49%. And more than 66,000 lives would be saved.

Chris Murray, the head of the Institute for Health Metrics and Evaluation's team, says that he expects the toll to be so high because Americans have shown they quickly grow lax in terms of wearing masks and social distancing as soon as the number of cases in their area starts to go down.

2) Children are getting sick from Covid-19

Nearly 100,000 children tested positive for the coronavirus in the last two weeks of July, a new report from the American Academy of Pediatrics finds. Out of almost 5 million reported COVID-19 cases in the U.S., the group found that more than 338,000 were children. More than 25 children died of the coronavirus in July alone.

While most children who catch the coronavirus have either no symptoms or mild ones, they are still at risk of developing "severe" symptoms requiring admission to an intensive care unit, the Centers for Disease Control and Prevention said in a new report released Friday. Hispanic and Black children in particular were much more likely to require hospitalization for COVID-19, with Hispanic children about eight times as likely as white children to be hospitalized, while Black children were five times as likely.

Despite persistent rumors that children are "almost immune" from the virus, the analysis of 576 children hospitalized for the virus across 14 states found that one out of three was admitted to the ICU — similar to the rate among adults. Almost 1 in 5 of those were infants younger than 3 months. The most common symptoms included fever and chills, inability to eat, nausea and vomiting.

RECOMMENDATIONS

We have no new recommendations at this time.