



San Francisco Village

**COVID – 19
Research and Advisory Team:
Report and Recommendations #25
August 30, 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 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) Scientists are reporting several cases of Covid-19 reinfection — but the implications are complicated

Just hours after the world's first confirmed coronavirus reinfection case was documented in Hong Kong on Monday, researchers reported a woman in Belgium had caught the virus a second time. So, too, did Dutch virus experts, who announced an older person in the Netherlands as a third confirmed reinfection of COVID-19, the disease caused by the coronavirus. A 25-year-old Nevada man appears to be the first documented case of Covid-19 reinfection in the United States, and his second bout was more serious than his first.

Researchers are finding that, generally, people who get Covid-19 develop a healthy immune response replete with both antibodies (molecules that can block pathogens from infecting cells) and T cells (which help wipe out the virus). This is what happens after other viral infections. In addition to fending off the virus the first time, that immune response also creates memories of the virus, should it try to invade a second time. It's thought, then, that people who recover from Covid-19 will typically be protected from another case for some amount of time. With other coronaviruses, protection is thought to last for perhaps a little less than a year to about three years.

But researchers can't tell how long immunity will last with a new pathogen (like SARS-CoV-2) until people start getting reinfected. They also don't know exactly what mechanisms provide protection against Covid-19, nor do they know what levels of antibodies or T cells are required to signal that someone is protected through a blood test. It is not known if reinfected people can spread the infection to others. However, if more people become susceptible to the virus again, that could increase the risk of transmission. Modelers are starting to factor that possibility into their forecasts.

Older people often generate weaker immune responses than younger people. Some studies have also indicated that milder cases of Covid-19 induce tamer immune responses that might not provide as lasting or as thorough of a defense as stronger immune responses.

2) Many long-haulers face challenges getting doctors to believe they had Covid-19

Seemingly recovered patients are experiencing what is being called post-Covid syndrome — weeks or months of profound fatigue, fevers, problems with concentration and memory, dizzy spells, hair loss, and many other troubling symptoms. Among these “long-haulers,” as they have become known, a significant number face a very specific challenge: convincing others they had Covid-19 in the first place.

Although tests for antibodies — which show evidence of an immune response to the infection after the fact — are now widely available, they are known to be of varying accuracy. Negative antibody tests, like negative viral tests, are not considered conclusive. Some people who believe they had Covid-19 might instead have had a cold or the flu or some other illness, but even patients who had positive tests showing they had active coronavirus infections report skepticism from doctors about their chronic symptoms. Those without such laboratory confirmation can face much greater obstacles. These patients routinely report difficulty finding a doctor who takes their complaints seriously.

In May, a patient-led research team associated with the Body Politic Covid-19 online support group released a survey of 640 people experiencing lingering symptoms. Only 23% had received a positive coronavirus test, almost half had not been tested at all, and 28% had tested negative.

3) A new clue about why the coronavirus hits men harder

Older men are up to twice as likely to become severely sick and to die as women of the same age. The first study to look at immune response to the coronavirus by sex has turned up a clue: Men produce a weaker immune response to the virus than do women, the researchers concluded. The findings, published on Wednesday in *Nature*, suggest that men, particularly those over age 60, may need to depend more on vaccines to protect against the infection. Women mount faster and stronger immune responses. Over all, the scientists found, the women’s bodies produced more so-called T cells, which can kill virus-infected cells and stop the infection from spreading. Men showed much weaker activation of T cells, and that lag was linked to how sick the men

became. The older the men, the weaker their T cell responses. This could lead to scenarios where a single shot of a vaccine might be sufficient in young individuals or maybe young women, while older men might need to have three shots of vaccine.

4) New \$5 rapid Covid-19 test

Abbott Labs got emergency approval from the US Food and Drug Administration for its rapid antigen test, which can detect a Covid-19 infection in 15 minutes. The antigen test, in which involves a nasal swab, uses the same type of technology as a flu test. Antigen tests, which look for pieces of the virus, are not as reliable as traditional Polymerase chain reaction tests, which look for the virus' genetic material. However they are a quicker, less expensive and less invasive. PCR tests have been beset by supply chain problems as well as back-ups at labs which have delayed results and frustrated patients, doctors and public health experts alike.

5) Obesity increases risk of Covid-19 death by 48%

Obesity increases the risk of dying of Covid-19 by nearly 50% and may make vaccines against the disease less effective, according to a comprehensive study using global data. The study, appearing in *Annals of Internal Medicine*, showed that obesity is especially dangerous for men and younger patients who contract COVID-19, and that obesity stood out from racial, ethnic, or socioeconomic disparities when isolated from those factors. The US and UK have some of the highest obesity rates in the world. US government data shows that more than 40% of Americans are obese. The figure in England is more than 27% of adults.

6) Remdesivir disappoints

Another clinical trial of remdesivir, this time with hospitalized patients having moderate COVID, has yielded disappointing and strange results. The first randomized trial showed a modest benefit in patients with severe COVID. Based on a new JAMA paper it seems clear that patients with moderate disease received little or no benefit from the drug. Among patients with moderate COVID-19, those randomized to a 10-day course of remdesivir did not have a statistically significant difference in clinical status compared with standard care at 11 days after initiation of treatment. Patients randomized to a 5-day course of remdesivir had a

statistically significant difference in clinical status compared with standard care, but the difference was of uncertain clinical importance.

7) 6 feet is not always enough: A graduated approach to physical distancing in Covid-19

Physical distancing is an important part of measures to control covid-19, but exactly how far away and for how long contact is safe in different contexts is unclear. Rules that stipulate a single specific physical distance (3-6 feet) between individuals to reduce transmission of SARS-CoV-2, the virus causing covid-19, are based on an outdated, dichotomous notion of respiratory droplet size. This overlooks the physics of respiratory emissions, where droplets of all sizes are trapped and moved by the exhaled moist and hot turbulent gas cloud that keeps them concentrated as it carries them over feet in a few seconds. The UK's Scientific Advisory Group for Emergencies (SAGE) estimates that the risk of SARS-CoV-2 transmission at 3 feet could be 2-10 times higher than at 6 feet.

Breathing out, singing, coughing, and sneezing generate warm, moist, high momentum gas clouds of exhaled air containing respiratory droplets. This moves the droplets faster than typical background air ventilation flows, keeps them concentrated, and can extend their range up to 23-26 feet within a few seconds. The heavy panting from jogging and other sports produces violent exhalations with higher momentum than tidal breathing, closer to coughs in some instances. This increases the distance reached by the droplets trapped within the exhaled cloud and supports additional distancing during vigorous exercise. However, respiratory droplets tend to be more quickly diluted in well aerated outdoor settings, reducing transmission risk

Instead of single, fixed physical distance rules, the researchers propose graded recommendations that better reflect the multiple factors that combine to determine risk. This would provide greater protection in the highest risk settings but also greater freedom in lower risk settings, potentially enabling a return towards normality in some aspects of social and economic life.

This figure presents a guide to how transmission risk may vary with setting, occupancy level, contact time, and whether face coverings are

worn. The levels of risk are relative not absolute, especially in relation to thresholds of time and occupancy, and they do not include additional factors such as individuals' susceptibility to infection, shedding level from an infected person, indoor airflow patterns, and where someone is placed in relation to the infected person.

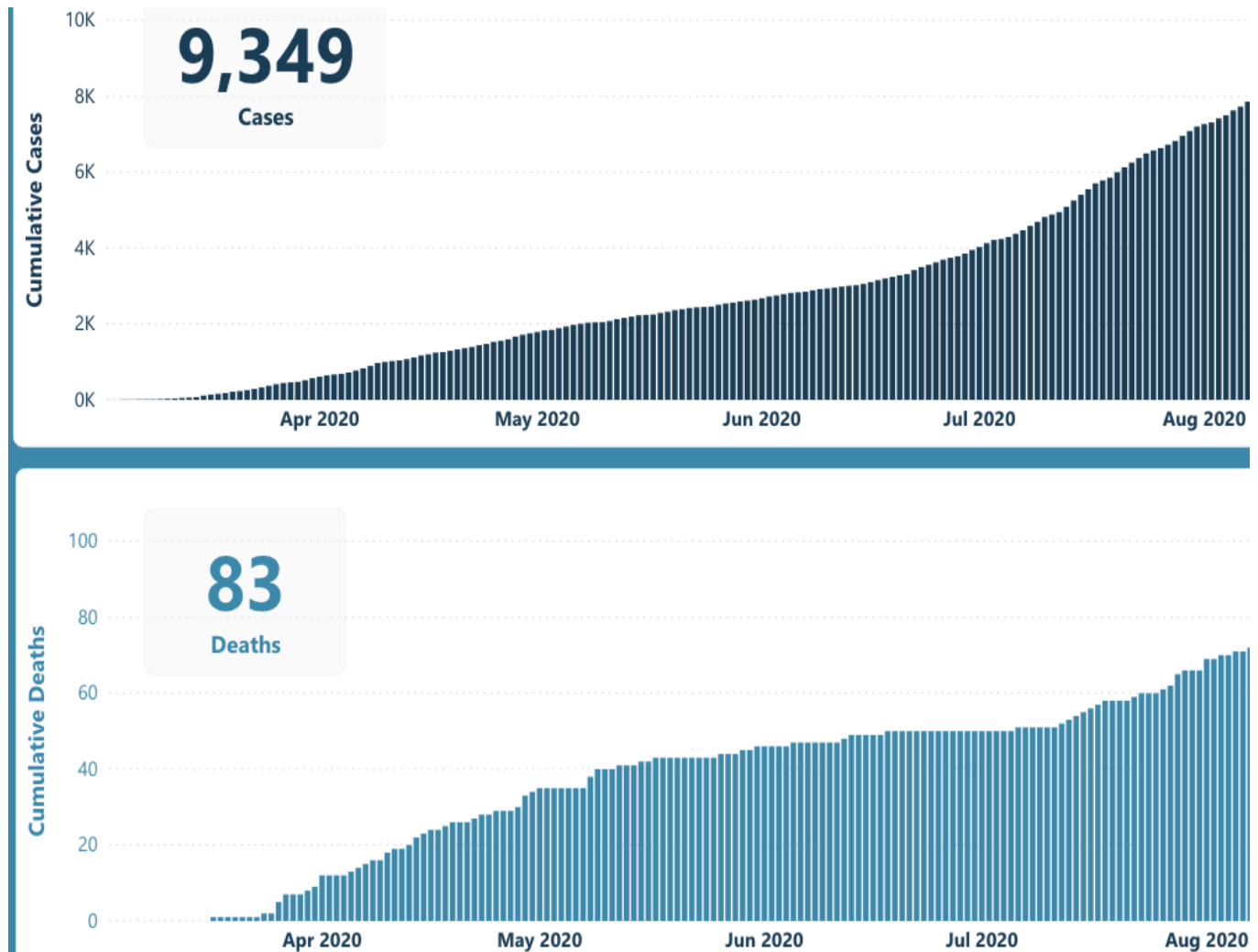
Type and level of group activity	Low occupancy				High occupancy		
	Outdoors and well ventilated	Indoors and well ventilated	Poorly ventilated		Outdoors and well ventilated	Indoors and well ventilated	Poorly ventilated
Wearing face coverings, contact for short time							
Silent	Low	Low	Low		Low	Low	Medium
Speaking	Low	Low	Low		Low	Low	Medium
Shouting, singing	Low	Low	Medium		Medium	Medium	High
Wearing face coverings, contact for prolonged time							
Silent	Low	Low	Medium		Low	Medium	High
Speaking	Low	*	Medium		*	Medium	High
Shouting, singing	Low	Medium	High		Medium	High	High
No face coverings, contact for short time							
Silent	Low	Low	Medium		Medium	Medium	High
Speaking	Low	Medium	Medium		Medium	High	High
Shouting, singing	Medium	Medium	High		High	High	High
No face coverings, contact for prolonged time							
Silent	Low	Medium	High		Medium	High	High
Speaking	Medium	Medium	High		High	High	High
Shouting, singing	Medium	High	High		High	High	High
Risk of transmission							
Low  Medium  High 							
* Borderline case that is highly dependent on quantitative definitions of distancing, number of individuals, and time of exposure							

SAN FRANCISCO

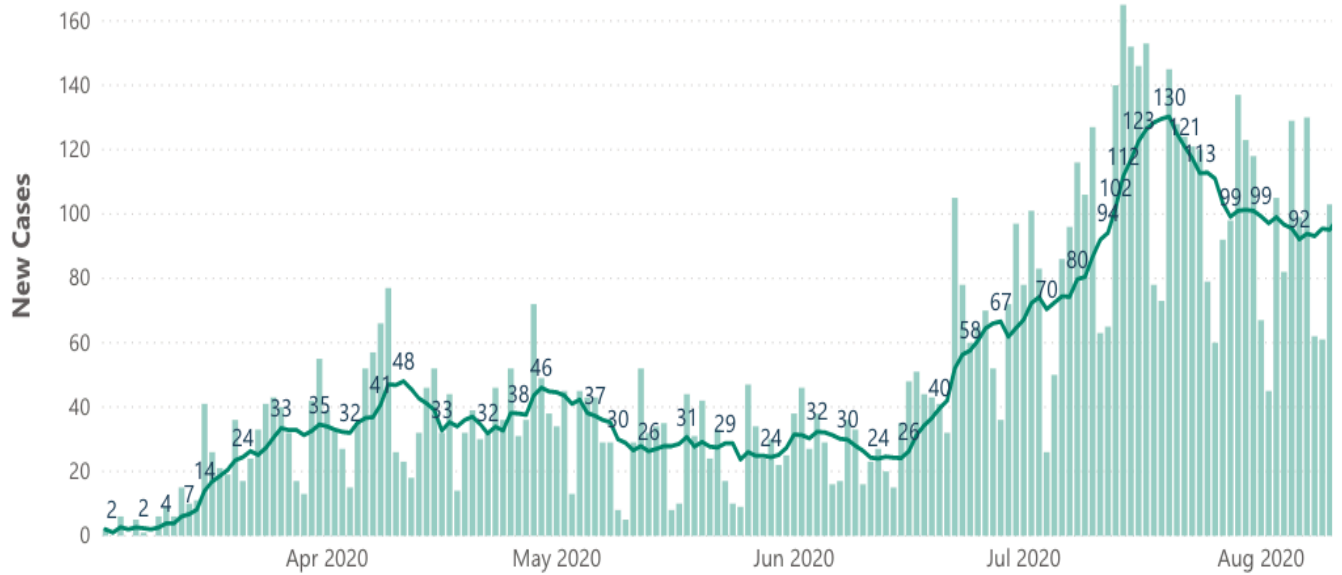
Total Tested: 378,256

Positive Cases: 9,349

Deaths: 83

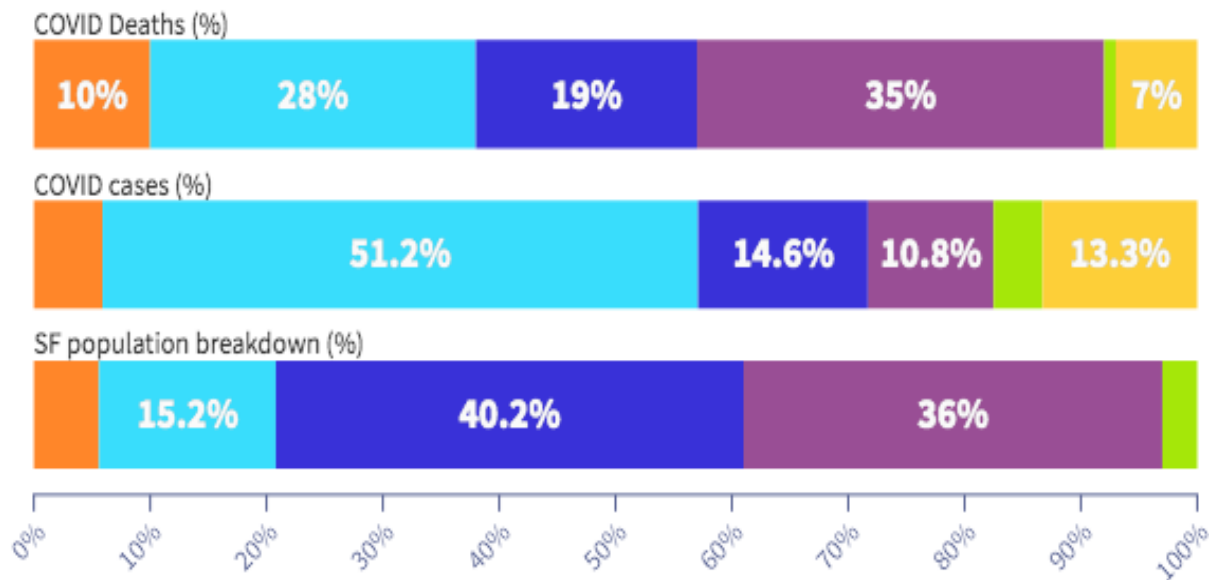


The seven-day average number of daily cases as of August 22 is 72. This works out to approximately 8.3 cases per 100,000 residents. The state's goal is 7.



COVID cases and deaths by race groups, as of August 2020.

Race Black Latinx White Asian Other Race unknown



1) San Francisco's Watch-List Rating Improves

Gov. Newsom unveiled a new color-coding system with four levels of COVID concern — replacing the former system in which counties were either on or off the state's monitoring list. The color categories assigned to each county — purple, pink/red, orange, and yellow — will determine how much of the county's economy can be open at any given time, and the rating will be updated every Tuesday. As before, though, counties that want to maintain more strict rules can do so. So even though San Francisco is in the second or red tier, with "substantial" but not "widespread" virus spreading, which under the new state guidelines would allow restaurants to be open indoors at 25-percent capacity, SF's health department is still keeping us at only outdoor dining until further notice. The good news is that San Francisco is no longer in the purple zone along with 38 out of California's 58 counties. We are in the pinkish-red tier along with eight other counties, and there are eight counties currently in the orange tier. Only three (very rural) counties are in the yellow tier.

These are the color-coded tiers:

County risk level	New cases	positive tests
WIDESPREAD Many non-essential indoor business operations are closed	More than 7 daily new cases (per 100k)	More than 8% positive tests
SUBSTANTIAL Some non-essential indoor business operations are closed	4 - 7 daily new cases (per 100k)	5 - 8% positive tests
MODERATE Some indoor business operations are open with modifications	1 - 3.9 daily new cases (per 100k)	2 - 4.9% positive tests
MINIMAL Most indoor business operations are open with modifications	Less than 1 daily new cases (per 100k)	Less than 2% positive tests

2) San Francisco to Let Nail Salons, Barbershops, Massage Studios Resume Outdoor Services

Mayor Breed and San Francisco Public Health Director Dr. Grant Colfax announced Friday that some SF businesses — mostly in the beauty industry — can start offering certain outdoor services beginning Tuesday of next week. The following services can start up again this coming Tuesday — outdoors:

- Haircuts
- Barber services
- Massages
- Nail services

3) UCSF scientists warn of flu season colliding with ‘third wave’ of covid-19

UCSF doctors on Tuesday warned that the upcoming flu season could hamper efforts to battle covid-19 if left unmitigated by an unvaccinated population. In the northern hemisphere, the flu season can begin as early as October and can last as late as April or May, according to the Centers for Disease Control.

If this year’s flu transmission becomes bad, said UCSF epidemiologist Dr. George Rutherford, “We’ll end up with extra people in intensive care units, emergency rooms, and on the wards that will be using healthcare resources that we need for covid patients.”

Rutherford said there’s a “potential” for California and the Bay Area to experience a “third wave” of covid infection in the fall that could run up against the flu season. Rutherford noted the possibility of a muted flu season this year. Australia, whose flu season takes place during its June to August in the Southern Hemisphere, had its least severe season in five years. And that *might* be because the population has been physically distancing and wearing masks to mitigate the covid-19 outbreak.

CALIFORNIA

California COVID-19 By The Numbers

August 29, 2020

Numbers as of August 28, 2020

CALIFORNIA COVID-19 SPREAD

693,839 (+4,981)
CASES

Ages of Confirmed Cases

- 0-17: 69,964
- 18-49: 416,615
- 50-64: 131,694
- 65+: 74,665
- Unknown/Missing: 901

Gender of Confirmed Cases

- Female: 349,907
- Male: 337,348
- Unknown/Missing: 6,584

12,834 (+144)

Fatalities

Hospitalizations

Confirmed COVID-19

4,072/1,282

Hospitalized/in ICU

Suspected COVID-19

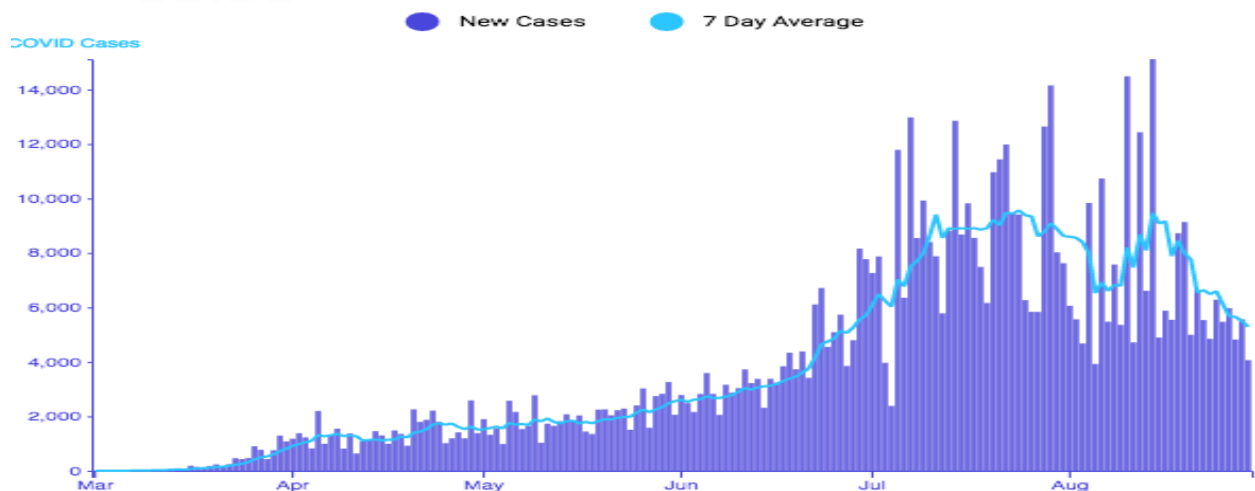
991/129

Hospitalized/in ICU

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

Your actions **save lives.**

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



1) California to reopen in slower phases after hard lessons from summer surge

Gov. Gavin Newsom on Friday overhauled California's economic reopening by slowing down the pace and allowing for different levels of

industry operation as California's coronavirus situation steadily improves following a summer surge. The new framework creates four tiers that condition in-person learning and business activity on daily case numbers and test positivity rates — a system that Newsom touted as creating a uniform standard that builds on what the state has learned since the pandemic began. Most counties currently fall into the most stringent tier, which would prohibit in-classroom instruction and indoor dining.

Despite being a success story early in the pandemic, California has had more than 680,000 coronavirus infections, more than any state in the nation, as well as more than 12,500 deaths. By late June, the state had gone from a national model to joining other problem states such as Arizona, Florida and Texas. After facing criticism for allowing California to reopen too quickly this summer, precipitating a boom in cases, Newsom said he recognized the need for the state “really hold strongly” to these rules “for an extended period of time.”

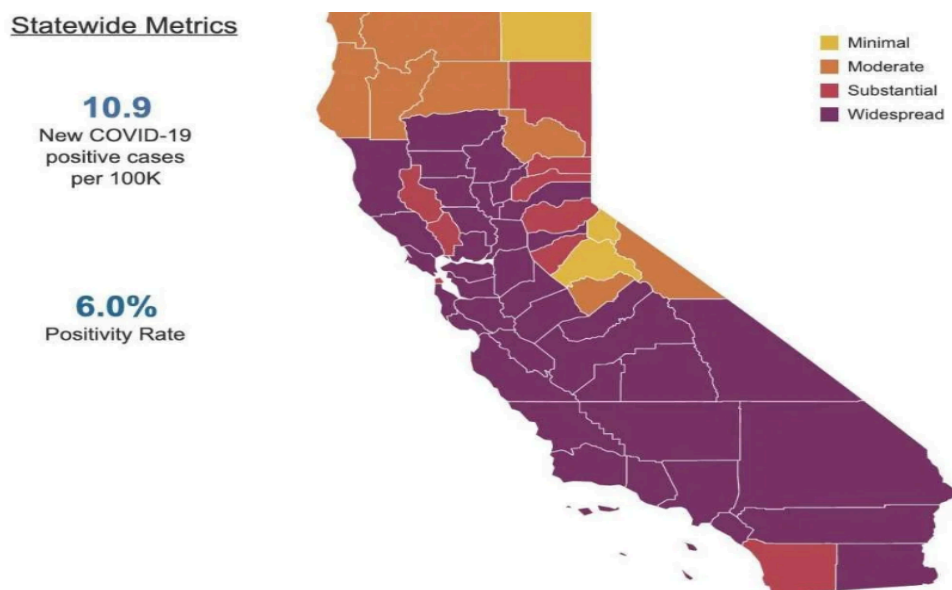
The six metrics used to measure a county and determine whether it can get off the watch list have been reduced to just two: the number of cases per 100,000 residents, and percentage of Covid-19 tests that come back positive. That removes such criteria as the average number of tests (per 100,000 population), the percentage increase in hospitalizations, available ICU and ventilator capacity. The state intends to look at data on a one-week lag to ensure that the information is accurate. Counties will be required to show how they are targeting their resources and to prevent and fight Covid-19 among those at the highest risk. The state will also condition certain funding on track-and-trace efforts.

Under the new rules, counties must spend at least 21 days in their current tier and can only move to a broader reopening phase if they meet stricter criteria for at least two weeks. That forces counties to spend more time under stable conditions than had been expected under the previous watch list approach. The state requirement also appears to raise the bar for case rate by switching to a daily maximum instead of an average of 14 days, while it builds in a lag period to review data. Both could delay when restaurants, malls, hair salons and other industries can reopen with more capacity or indoors.

The new announcement allows shopping centers and retail to open indoors in all counties with only 25 percent capacity and no common areas or food courts. As counties advance to more relaxed tiers, they can expand capacity. But even counties in the most restrictive, purple tier can begin to reopen hair salons and barbershops inside with safety precautions. They would have to keep other personal care services, such as nail salons, outside. Additional outdoor venues, including churches, satellite wagering and zoos, could reopen with restrictions. Most indoor business operations would be prohibited in counties that are in the bottom tier, where the coronavirus remains the most widespread. Counties that advance into the next tier could allow diners inside at 25 percent of their capacity.

Of paramount importance are the preconditions for in-person learning as the school year resumes. Schools can allow students back in the classrooms in counties that have seen between four and seven daily cases per 100,000 and a positivity rate between 5 percent and 8 percent for two weeks. Those data points are almost identical to the school reopening guidelines Newsom previously laid out, given that seven cases per 100,000 daily is nearly the same as the previous threshold of 100 per 100,000 over two weeks.

This map shows tier color-coding by county:



UNITED STATES

Cases: 5,958,902

Deaths: 182,718 (IHME <Institute for Health Metrics & Evaluation> projects that by Dec. 1 there will be 317,312 total deaths, and a daily death rate of 2,103)

1) CDC Guideline Changed, Then Verbally “Walked-Back,” Then Change Remains on CDC Website – Asymptomatic People Don’t Need to Be Tested

Health leaders on Wednesday blasted recent changes to the CDC’s coronavirus guidelines that relaxed testing recommendations for asymptomatic individuals. The changes, which appeared Monday on the CDC’s website, say that people who’ve been in close contact with a COVID-19 patient but are asymptomatic “do not necessarily need a test,” unless they are a “vulnerable individual” or are recommended to take one by healthcare providers or public health officials. Last week, the website had recommended testing for all close contacts of COVID-19 patients. The CDC’s own page for COVID-19 planning scenarios estimates, for the purposes of public health planning, that 40% of COVID-19 infections are asymptomatic.

Politicians and medical experts across the country said that the recommendation to not test asymptomatic individuals was unscientific, could skew data on infection rates, and result in increased infections. California Governor Gavin Newsom and New York’s Andrew Cuomo have both said their states will not be following the updated federal guidelines. The guidelines would lead directly to more serious cases and more deaths if followed and the CDC hasn’t given an explanation for the changes. Many have stated that they suspect a political motivation.

On Thursday, CDC Director Robert Redfield appeared to revise the controversial guidance posted to the agency’s website on Monday, saying: “testing may be considered for all close contacts of confirmed or probable Covid-19 patients.” While not directly addressing questions from the medical community about why the CDC’s testing suggestions had shifted or why the agency’s official guidance was reversed, Redfield emphasized the importance of testing and attempted to add clarification: “Everyone who needs a Covid-19 test, can get a test. Everyone who wants a test does not necessarily need a test.”

However, the looser revised guidelines on the agency's website from Monday were not changed after Redfield's clarifying statement on Thursday. They remain:

“If you have been in close contact (within 6 feet) of a person with a COVID-19 infection for at least 15 minutes but do not have symptoms:

- You do not necessarily need a test unless you are a vulnerable individual or your health care provider or State or local public health officials recommend you take one.”

RECOMMENDATIONS

- 1) Given the appearance that the CDC and the guidelines it offers has been politicized, we would recommend that members use additional sources to provide information and data to guide their safety, testing, and treatment decisions.
- 2) Given the impending confluence of the pandemic with the flu season, consider recommending in newsletters that members not hesitate in getting a flu vaccine for this flu season. Members should consult with their doctor to decide the optimal time to get the vaccine.
- 3) Many members have found walking during this pandemic to be not only a source of exercise, but also a time for socialization, and an essential escape to nature. The smoke pollution from the fires has risen to high enough levels on many days that walking outside poses respiratory risks. SFV may become even more of an essential support and refuge for members during the fire season. In addition to telephone check-ins with vulnerable members and coffee chats, SFV might consider offering additional activity-based programs (eg. beginning and intermediate yoga, online card or word games, etc.). SFV might also consider an expert talk on coping with prolonged stress.