San Francisco Village

COVID – 19
Research and Advisory Team:
Report and Recommendations
April 12, 2020

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Research & Advisory Team Report #5
April 11, 2020

This report contains a summary of the key updates on the status of Covid 19 that are more evident since our last report (April 5), along with our current recommendations for actions for SFV to consider taking. Sources include CDC, WHO, medical researchers, clinical journals, reports from epidemiologists and public health professionals.

Current State of Covid 19

Global

Confirmed Cases: 1,831,130
Confirmed Deaths: 113,013
Recovered: 419,833

1) Some European Easing of Restrictions

Some countries in Europe are putting in place plans to ease the lockdown with a phased reopening – the Czech Republic, Denmark, Austria, Norway.

None of those planning to ease their restrictions in the coming days are among Europe's worst affected. The countries preparing to ease restrictions had something in common: they were among the first in Europe to implement lockdowns or severe social distancing measures and had rapidly scaled up coronavirus testing.

2) Potential for Long Term Damage from Covid 19

For the sickest patients, infection with the new coronavirus is proving to be a full-body assault, causing damage well beyond the lungs. And even after patients who become severely ill have recovered and cleared the virus, physicians have begun seeing evidence of the infection's lingering effects.

A study done by scientists in China examined the blood test results of 34 COVID-19 patients over the course of their hospitalization. In those who survived both mild and severe disease, the researchers found that many of the biological measures had failed to return to normal.

Chief among the worrisome test results were readings that suggested these apparently recovered patients continued to have impaired liver function. That was the case even after

two tests for the live virus had come back negative and the patients were cleared to be discharged.

At the same time, as cardiologists are contending with the immediate effects of COVID-19 on the heart, they're asking how much of the damage could be long-lasting. In an early study of COVID-19 patients in China, heart failure was seen in nearly 12% of those who survived, including in some who had shown no signs of respiratory distress.

3) Reactivation of Covid 19 Virus

New data from the Korean Centre for Disease Control and Prevention (KCDC) has suggested a new theory about how we build immunity to coronavirus.

The KCDC stated last week that there have been 91 documented cases of patients in South Korea who had recovered from the coronavirus, left quarantine, and then tested positive again. From the knowledge that we have about other coronaviruses, we are aware that immunity to such viruses can be variable.

Antibodies we form against the common cold, for example, which is also caused by a coronavirus, do not offer lifelong immunity from this virus. As the US's Center for Disease Control and Prevention (CDC), has stated, adults on average catch two to three colds a year. Research on the Middle Eastern Respiratory Syndrome (MERS) virus has shown that immunity wanes after around 18 months and we build an average of two years' immunity to the Severe Acute Respiratory Syndrome (SARS) coronavirus, which seems to have the most in common, genetically speaking, with COVID-19.

From what has been observed about COVID-19 so far, researchers suspect that we will have at least a "short-term" immunity, so that you will be unlikely to catch it again this season.

While they cannot rule out reactivation as a possibility yet, it still seems more probable that these 91 cases were either due to the levels of the virus dipping below a detectable level, allowing symptoms to improve, but then surging again, or that there were flaws with the tests, where the clearance samples were false negatives.

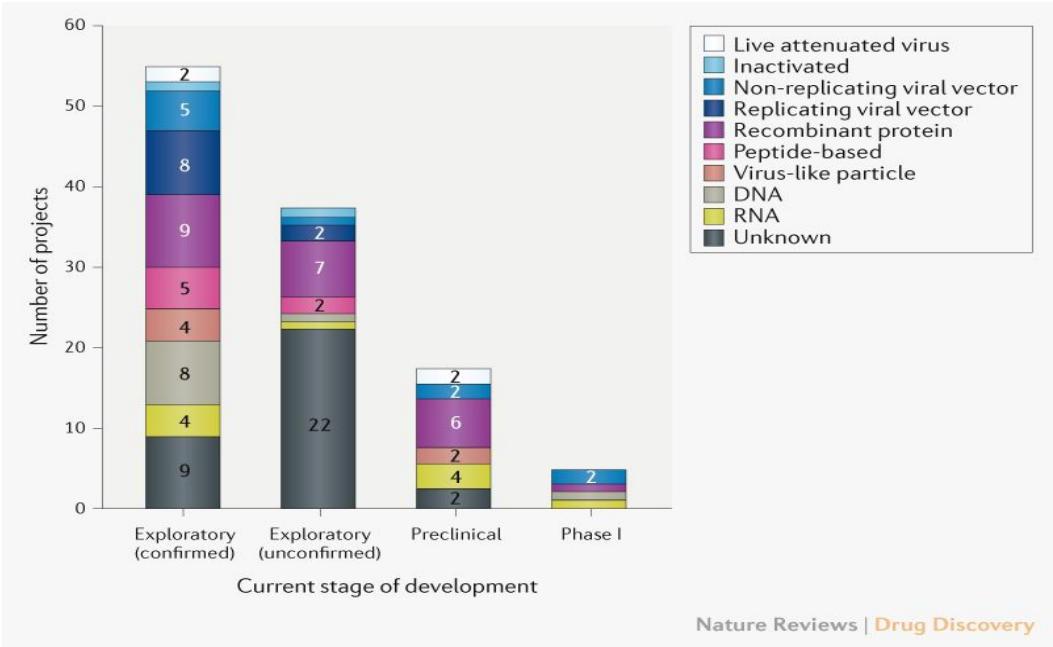
However, most virologists believe that immunity against Covid-19 will last only a year or two, which is in line with other coronaviruses that infect humans. That means that even if most people do eventually become exposed to the virus, it is still likely to become endemic – which means we would see seasonal peaks of infection of this disease. This will likely be the steady state with regard to Covid-19.

4) COVID-19 Vaccine and Treatment Landscape

Vaccine:
Given that Covid 19 is likely to behave as other viruses do and reoccur periodically, and that human immunity to the virus once a person has contracted it is not permanent, it is imperative that a vaccine be discovered.

The global vaccine R&D effort in response to the COVID-19 pandemic is unprecedented in terms of scale and speed. Given the imperative for speed, there is an indication that vaccine could be available under emergency use or similar protocols by early 2021. This would represent a fundamental step change from the traditional vaccine development pathway, which takes on average over 10 years, even compared with the accelerated 5-year timescale for development of the first Ebola vaccine, and will necessitate novel vaccine development paradigms involving parallel and adaptive development phases, innovative regulatory processes and scaling manufacturing capacity.

As of April 8, 2020, the global COVID-19 vaccine R&D landscape includes 115 vaccine candidates, of which 78 are confirmed as active and 37 are unconfirmed (development status cannot be determined from publicly available or proprietary information sources). Of the 78 confirmed active projects, 73 are currently at exploratory or preclinical stages. The most advanced candidates have recently moved into clinical development.



Treatment:
Remdesivir

Biotech company Gilead Sciences published an analysis in the *New England Journal of Medicine* on Friday tracking the responses of 53 patients with severe cases of Covid-19 to

remdesivir therapy given out on a compassionate-use basis — that is, patients were given the unapproved drug because no other options are available.

According to the report, doctors observed clinical improvement in 36 of the 53 patients; 8 got worse, and 7 died. Doctors were able to take 17 of the 30 patients who were on ventilators, life-support devices that help people breathe, off the machines.
The authors of the study note that the death rate of the patients they observed — 13 percent — is lower than the death rate of 17 to 78 percent in China among people who are severely ill with Covid-19. Results are indeed hopeful and promising from this uncontrolled remdesivir intervention study

Hydroxychloroquine
On a less optimistic note, France's drug-safety agency has released data indicating that hydroxychloroquine, the anti-malaria drug Trump has pushed as a potential miracle drug for treating Covid-19, appears to have serious side effects on the heart when used for Covid-19 patients, and should be used under medical supervision.

US National

Confirmed Cases: 550,655
Deaths: 21,667
Recovered: 31,120

1) The US now has more Covid 19 deaths than any other country.

At the end of March, the White House presented data that suggested between 100,000 and 200,000 people could die from the coronavirus. Though there have been some questions about the statistical models the administration used to make that estimate, Dr. Fauci said the estimates are now closer to 60,000 — in part because aggressive stay-at-home measures are working. However, the virus has not yet reached its peak in the US.

2) Health Disparities for People of Color

The virus is affecting everyone, in one way or another, but in terms of actual sickness and death, it is disproportionately afflicting people of color. So far, at least, it is afflicting primarily those people of color who live in the most densely populated cores of our metropolitan centers. Minorities are not more predisposed to infection "biologically or genetically," but rather they are "socially predisposed" to it.

New York City officials last week said black and Latino residents were dying at twice the rate of white people. In Chicago, more than 70% of virus-related fatalities were among African Americans — a percentage more than double their share of the population.

The people most at risk tend to live in crowded quarters and take public transit to jobs deemed essential or impossible to do from home. Preexisting health problems, also often related to living conditions, can make the virus more likely to be fatal.

3) Testing Fallibility

As COVID-19 tests (PCR tests that detect the presence of the virus) become more widely available across the United States, scientists have warned that there is one growing concern: The tests are not 100 percent reliable, meaning people with negative results might actually have the virus. It depends on how much virus the person is shedding (through sneezing, coughing and other bodily functions), how the test was collected and whether it was done appropriately by someone used to collecting these swabs, and then how long it sat in transport. Much hope is placed on newly available serological tests that look for antibodies produced by a person's body in response to the virus and can tell whether a person was infected, long after they recovered.

California, Bay Area, and San Francisco

Total Tested: 7,666
Total Cases: 872
Deaths: 14

1) Bay Area curve continues to flatten.

The number of total confirmed and suspected COVID-19 patients in Bay Area hospitals decreased again on 4/10, giving the region a third straight day of reduction. According to figures dated April 10 and released by the state Saturday morning, there were 718 confirmed and suspected COVID-19 hospitalizations in the nine counties that make up the San Francisco Bay Area, with 256 patients in intensive care units. The Friday total hospitalization figure is a nine percent decrease from Thursday, and the ICU figure is a two percent decrease. The number of Bay Area coronavirus patients requiring hospitalization was at the lowest it has been since the state started recording hospital data by county on April 1.

2) Outbreaks among homeless in San Francisco

In San Francisco there has been an outbreak of 70 new positive cases at a San Francisco homeless shelter - 68 homeless individuals and two staff members at MSC South have tested positive to COVID-19. The city is using hotel rooms to isolate those who have been exposed, Breed said. MSC South is the city's largest homeless shelter, located at Fifth and Bryant streets, with a 340-bed capacity is being transitioned from a homeless shelter into a medical care facility to take care of coronavirus patients and staffed by Department of Public Health nurses and doctors.

2) The State of California has launched an invaluable website - https://covid19.ca.gov/ - that has lists of resources, updates on statistics and actions the State has taken such as:

- Made testing free for most Californians who are medically eligible for testing
- Ensured students continue to learn and get meals even when schools physically close
- Deployed the California National Guard to work at food banks
- Distributed millions of N95 masks and other protective gear to health care workers, with more to come soon
- Secured travel trailers and hotels to house people experiencing homelessness

Recommendations

We have no new recommendations at the time of this report.

We recommend that the actions suggested in previous reports continue to be implemented, with top priority given to:

- Making and documenting outreach phone call to all members
- Enabling members to connect to each other through online classes, events, and Circle meetings
- Informing members about community resources and SFV events and volunteer help through regular email updates

As time and resources permit, begin to implement the recommendations from previous reports, in particular:

- Continue to address social isolations through:
    - Buddy system – pairing members with volunteers, and with each other, to do regular check-ins
    - Convene online intergenerational dialogues
    - Convene an online focus group of the people who are making the member outreach calls to pool what they are learning about member needs
    - Convene online groups of members to discuss how they are coping, what they are learning, and what help/resources they still need
    - Coach Circle leaders in facilitating circle discussions about how members are doing, in particular in terms of social isolation. Where appropriate, suggest Circle leaders facilitate dyad/triad meetings in between Circle meetings.
    - Given the increasing number of racist incidents against Asians, consider offering an event to educate members about this trend