Here’s what coronavirus testing in California will look like in coming weeks

By Catherine Ho and Cynthia Dizikes | SF Chronicle | April 25, 2020

As Californians dream of a return to normalcy, tens of thousands will have to be swabbed by armies of coronavirus testers before that can happen.

Now that Gov. Gavin Newsom has called for 60,000 to 80,000 diagnostic tests a day as a condition for reopening the economy — which amounts to 420,000 tests a week, and 1.8 million a month — here's what will be in store in the coming weeks if the still-vague plan is executed:

Nurses, doctors, nurse practitioners and physician assistants wearing masks, face shields, gloves and gowns will stick a 5-inch metal-and-plastic swab down the throats and into the nostrils of thousands of people at hundreds of drive-through testing sites, hospitals, nursing homes, homeless shelters and jails. Every swab will go into a small tube of liquid to preserve the specimen. Every tube will enter a plastic biohazard bag with the patient's name. Then dozens of bags — in chilled coolers — will be sent to one of 22 labs across the state, where lab workers will load them into machines that will determine if viral material is present.

The whole process, including returning the results to medical office they came from, will take hours or days, depending on the lab.

This public health production line is already happening every day across the state — but only at a rate of about 16,000 tests a day.

That's far too few daily tests for public health officials to understand where the virus is and whether most people can safely resume human contact, say the Harvard researchers whose calculations are the basis for the 60,000-test threshold Newsom announced last Wednesday.

The researchers determined that nationally, the U.S. will need to conduct at least 152 tests for every 100,000 people every day.

In California, that's at least 60,000 tests a day, and hundreds of thousands more each week. Getting there will require labs and public health agencies to regularly secure large shipments of swabs, test kits and other materials. In some cases, labs may have to start using machines that can run many more specimens at once. In other cases, they may have to hire more staff to help perform the tests.

“This is not like we are trying to win the lottery -- these are achievable goals,” said Omai Garner, director of clinical microbiology in the UCLA Health System. “But everything will have to go right.”

On April 19, the state relaxed its testing guidelines to allow some asymptomatic people to be tested, in addition to people with symptoms of COVID-19, the disease caused by the coronavirus.

Yet, state officials have offered no detailed strategy beyond saying they are increasing testing for high-priority people and redistributing supplies to labs that can process the most tests. That means the tests won't be uniformly spread across the state, but done in clusters where the most urgent needs arise: in nursing homes and other places where people live in groups.

State officials said they will also seek more suppliers of swabs and other critical testing equipment, where shortages have hampered efforts to test more people.
Ideally, everyone with symptoms will soon get tested, which today isn't happening. Those sick enough to be hospitalized will get results the fastest — within hours or even minutes, using on-site lab equipment. Many may soon be able to use new at-home tests authorized last week by the FDA.

It's also possible that thousands of people without symptoms will also get tested— and retested, possibly as often as every three days for awhile. That's because it takes 3.5 days to test positive after being infected, experts said. This group will probably include health care workers, first responders and employees at nursing homes and homeless shelters, who are at higher risk of exposure. Others may include workers doing essential jobs — from grocers to plumbers — who haven't been sheltering in place with the rest of the state.

Bay Area counties also have yet to coalesce around a single, concrete testing strategy, although some counties are starting to devise local strategies. That lack of clarity has left some local lawmakers and residents frustrated.

“We need more openness about how we are going to increase testing,” said Matt Haney, a San Francisco supervisor who has called for more testing of vulnerable residents, including homeless people, regardless of whether they have symptoms. “I don't think our county health department has offered a clear enough plan, or been transparent, about our testing strategy moving forward.”

Last week, San Francisco's public health officer, Dr. Tomás Aragón, spoke to the supervisors in broad terms about the county’s approach. He said “strike teams” will visit facilities to test residents and workers, including those without symptoms who have been in close contact with people who have tested positive.

San Francisco is testing about 500 people a day and hopes to get to 3,400 a day, or 80% of the city's capacity of 4,300 tests a day.

“So stay tuned,” Aragón said. “You'll see changes as testing becomes more available and as our strategy becomes more liberal in terms of testing.”

Other public health officers in the Bay Area have cautioned against defining testing goals before knowing whether they will be able to have enough staff or supplies to get there.

“We're not at a point where we can say, ‘If we do X amount of testing, then the county can open up again for business,’” said Contra Costa County health officer Dr. Chris Farnitano. “What we can say is that we want to do more testing than we're doing now.”

Contra Costa County is doing 200 to 400 tests a day and would like to get close to 1,500 tests a day — but local labs may not have enough staff to handle that volume, Farnitano said.

Nevertheless, throughout much of the Bay Area, the foundation of the testing infrastructure needed to meet the governor's goals is falling into place. What started as a handful of testing sites in March has grown into dozens. With each passing day, sites are expanding the pool of people who can get tested. They are loosening restrictions — such as requiring a doctor's order and limiting patients to those with severe symptoms — that previously prevented many sick people from getting a test.

“Far and away the most important thing we can do is screening of staff going into (assisted living) facilities,” Dr. Sara Cody, Santa Clara County's health officer, said during a Board of Supervisors meeting Tuesday. “People can have no symptoms but still be infectious and putting others at risk. The most important thing we can do is regular screening of health care workers and staff.”

Testing for the homeless — another highly vulnerable group — is also expanding.

Stanford Health Care announced Thursday that starting Monday, they will host a testing site for homeless people and others at the Alameda County Fairgrounds.

LifeLong Medical Care, a Berkeley-based network of community clinics that serves poor and uninsured East Bay residents, recently started testing some homeless people without symptoms before moving them to hotels — part of an effort by Alameda County's Health Care for the Homeless program.

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