

We may need 300,000 contact tracers to defeat COVID-19. We have 2,200

Enlarge / Robert Redfield, director of the Centers for Disease Control and Prevention (CDC), speaks during a Coronavirus Task Force news conference at the White House in Washington, DC, on Wednesday, April 8, 2020.

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As Americans anxiously await news of when they can emerge from their 4-meter-wide personal-space bubbles and go back to something resembling normal life, public health experts are working furiously to determine essential steps to get us there safely. And a consensus is emerging that key among those steps is recruiting a massive number of people to perform contact tracing.

“It is going to be critical,” director Robert Redfield of the US Centers for Disease Control told NPR in an interview late last week. Scaled-up contact tracing, along with increased testing, is needed to “make sure that when we open up, we open up for good.”

“We can’t afford to have multiple community outbreaks that can spiral up into sustained community transmission,” he said, “so it is going to be very aggressive, what I call ‘block and tackle,’ ‘block and tackle.’”

Contact tracing, generally, is an effort to stop disease transmission by tracking down all the people who have had contact with someone known to be infected. Standard methods of doing this, according to the World Health Organization, involve having health workers interview people with confirmed infections to identify all of their recent contacts, who, in turn, are at risk of developing the infection or may already be sick.

The health worker then makes a list of those contacts, gets in touch with each of them, and then follows up with them periodically to monitor testing results, potential symptoms, and quarantines (for at-risk contacts) or isolation (for infected contacts).

Tracking the contacts of that first case—and maybe even contacts of those contacts—can keep people still incubating an infection from passing it on, halting the chain of transmission. In places where there is not widespread transmission, health workers may even be able to identify where the first case picked up their infection. In that case, the health workers can then begin contacting that person's contacts and so on.

Pouncing on disease

But in places where there *is* widespread transmission—such as the case in much of the United States currently—contact tracing is an unmanageable and even unhelpful task. That's the point at which public health officials switch to mitigation efforts, such as the stay-at-home orders now seen in many places in the country. Public health experts are now waiting for those mitigation efforts to dampen transmission enough to be able to switch over to relying on testing and contact tracing to control transmission.

“The concept is: once you get down to a manageable number of cases and scale up the public health system, then you will be

able to pounce on any case or cluster to proactively identify cases, identify contacts, and follow up on those contacts,” Tom Frieden, a former CDC director, told STAT news recently. “When you get those things done, you can prevent the clusters from becoming outbreaks, prevent outbreaks from becoming epidemics, and prevent the epidemics from driving us into our homes again.”

Researchers estimate that each person with COVID-19 goes on to infect two to three other people, on average. That means that one infected person could give rise to more than 59,000 cases if 10 rounds of infections are allowed to take place unimpeded.

To keep such exponential infection from happening again in the US, we’ll need more testing and “very aggressive” contact tracing, Redfield said. Other experts heartily agreed and many are trying to estimate just how much testing and contact tracing we’ll need.

In a report from the think-tank American Enterprise Institute, public health experts laid out a road map to reopening the US, noting the need for increased testing. It estimated that “a national capacity of at least 750,000 tests per week would be sufficient to move to case-based interventions when paired with sufficient capacity in supportive public-health infrastructure (e.g., contact tracing).”

Though testing is still extremely limited and backlogged in the wake of seriously delayed rollouts, we’ve actually hit that goal of a 750,000 test-per-week minimum capacity, according to the COVID Tracking Project. And efforts are underway to continue expanding test access and availability.

Scaling up

We have a lot more work to do on expanding contact tracing. While some researchers and big tech companies such as Apple

and Google are looking into using mobile device location data and applications to track and notify contacts, many experts are now calling for a massive recruitment of health workers to get the necessary phone interviews and follow-up done effectively.

But, with chronically underfunded public health infrastructure and a lack of federal coordination, it won't be easy. Many experts have estimated that we'll need tens of thousands of contact tracers to keep the United States open. Dr. Frieden, for instance, called for an "army" of 300,000 contact tracers. A report by public health researchers at Johns Hopkins and the Association of State and Territorial Health Officials (ASTHO) estimated that we'll need to add at least 100,000 contact tracers to the mix. To match the level of contact-tracing done in Wuhan, China, where the outbreak began, we would need more than 265,000 contact tracers.

We currently only have 2,200 contact tracers in the country, ASTHO reports.

This had led to some brainstorming on how to boost those numbers, including tapping into volunteer networks and medical programs to get boots on the ground.

"We need a Marshall Plan. We need a New Deal. We need a WPA for public health," Gregg Gonsalves, a Yale epidemiologist, told KHN.

Tracers wanted

Meanwhile, the state of Massachusetts is working with global health nonprofit Partners in Health to recruit 1,000 people to do contact tracing.

"Widespread testing and aggressive contact tracing have been key pillars of public health responses to infectious disease outbreaks for more than a century," the nonprofit says on its

website. “Along with effective isolation and quarantine measures, contact tracing has played an important role in highly successful control programs in Germany, the Republic of Korea, Singapore, Hong Kong, and China.”

Dr. Mary-Margaret Fill, a physician and epidemiologist with the state of Tennessee, echoed the sentiment to KHN, saying: “[Contact tracers] are the internal cog in this response; without them we fall apart.”

According to Partners in Health’s online application, candidate contact tracers need only applicable communication and organization skills and a high school diploma.

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