

Bold hopes for virus antibody tests still unfulfilled

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In this Tuesday, May 5, 2020 file photo, a health worker draws blood from a patient for a COVID-19 coronavirus antibody test in DeLand, Fla. Scientists are still working to figure out how well antibodies for the new coronavirus may shield someone from another infection, or how long that protection might last. (AP Photo/John Raoux)

At the height of the coronavirus lockdown, President Donald Trump and his top health advisers trumpeted a new test that would help Americans reclaim their lives—one that would tell them if they already had the virus and were protected from getting it again.

Their arrival would help "get Americans back to work" by showing those who might have "the wonderful, beautiful immunity," said Trump, a point repeated at the daily briefings last April.

Months later, the U.S. is awash in the tests but the bold predictions about their usefulness have yet to materialize.

"There was definitely a lot of wishful thinking that there was going to be a magical test that was going to save us all, but we're not there yet," said Dr. Jennifer Rakeman of New York City's Public Health Laboratory.

The tests check the blood for antibodies the body makes to fight off an infection. Scientists are still working to figure out how well antibodies for the coronavirus may shield someone from another infection, or how long that protection might last. Some early studies suggested any immunity fades fast; research published last week was more promising, suggesting that antibodies last at least four months after diagnosis and do not fade quickly.

For now, the Centers for Disease Control and Prevention and the American Medical Association explicitly warn that antibody tests should not be used to make decisions about returning workers to the office or students to school, though some labs still promote them for those uses. The CDC recommends everyone—even those who were sick and recovered—take precautions to prevent getting and spreading the virus.

Experts say it was probably unrealistic to expect answers to key immunity questions early in the outbreak. Those questions have

traditionally been answered only through long-term animal or human studies, said Marc Jenkins of the University of Minnesota.

The National Institutes of Health and universities are conducting some of this work, but much of it has taken a back seat to the rapid development of vaccines in the middle of a pandemic.

"Everyone's impatient and I can see why," Jenkins said. "But there's no easy path to this knowledge" about immunity.

Antibody tests are different from the standard nasal swab tests that diagnose active infections. Instead, they use a blood sample or finger-prick of blood to look for signs of a past infection, whether the person was sick or had no symptoms at all. Based on other viruses, experts expect those with coronavirus antibodies to be at least partly immune for several months, if not longer.

Dr. Anthony Fauci and other members of the White House task force said early on it was a "reasonable assumption" that if "you have the antibody, you're protected" but added that there wasn't proof.

To get that proof, scientists first run experiments in animals. Human trials come next and can take even longer. Researchers track people who had an infection and developed antibodies to see if they become reinfected. Their antibodies are measured to gauge the level needed for immunity.

Jenkins and others said it's entirely possible that an effective vaccine will arrive before coronavirus antibody studies are completed, helping answer some of the key questions. Vaccines spur the production of antibodies, and a number of coronavirus vaccines are now being tested around the world.



This Tuesday, April 14, 2020 file photo shows an antibody test kit at a drive-thru testing site in Hempstead, N.Y. The test, being administered by Somos Community Care, takes approximately 15 minutes and tests for the presence of antibodies in a person's blood, signifying that they may have some immunity to the coronavirus. (AP Photo/Seth Wenig)

In the meantime, experts say antibody tests are useful for two things: Large studies in the general population to see how widely the coronavirus has spread, and screening people who may be able to donate their antibody-rich blood plasma, which is used as an experimental treatment for COVID-19.

But those uses were not the focus of White House briefings last spring,

which attracted between 8 million and 10 million cable TV viewers daily, according to Nielsen. A spokesperson for the White House coronavirus task force did not provide a response to requests for comment.

Expecting massive demand, the Food and Drug Administration chose a "flood-the-zone" strategy, allowing more than 170 tests to launch with little oversight.

At the same time, Trump highlighted his administration's "fantastic progress" bringing antibody tests to market, some officials were raising concerns. Reports of European governments forced to discard millions of faulty tests raised alarms.

"We're going to be very careful to make sure that when we tell you you're likely immune from the disease ... the test really said that," said Admiral Brett Giroir, the administration's "testing czar."

The FDA pulled back on its lax policy for antibody tests in May, requiring companies to begin submitting data on accuracy. The FDA has authorized about 40 thus far, while dozens more await review.

Despite the precautions from regulators, some testing companies continue to advertise the tests for workers and others. Big laboratories, including LabCorp and Quest, offer the tests to employers, along with other services like temperature checks.

"We are aware of the CDC's guidance," Quest spokeswoman Kimberly Gorode said in a statement. "That is why we recommend that employers use antibody testing as part of a holistic approach to bringing their employees back to the office."

LabCorp said in a statement: "As knowledge grows there may be benefit

in having access to this information."

At testing sites in New York City in April, doctors with Somos—a medical non-profit serving low-income communities—told people who tested positive for antibodies that they could safely return to work, although they acknowledged "nothing is 100%." In a recent interview, the group's founder, Dr. Ramon Tallaj, defended the testing. He said the workers would have been expected to go back anyway. The antibody tests simply provided "one extra layer of protection," he said.

The CDC and state public health agencies continue to use antibody testing to track the spread of the virus in the U.S. So far, in most areas studied, fewer than 5% of the population have antibodies. That's far below the levels that most experts think will be needed for herd immunity against coronavirus, underscoring the need for a vaccine.

For now, Jenkins doesn't recommend spending the money to get tested for antibodies unless a doctor recommends it.

"Even the research community can't really tell you what the result means," Jenkins said.

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