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BRIEF19

A daily review of covid-19 research and policy

RESEARCH BRIEFING

Pfizer releases exciting vaccine effectiveness datum. (Datum is the singular of data).

It's all riding on a vaccine. While new or repurposed therapeutics may lower the death rate from covid-19 to some degree, most experts feel the only way to avert millions of deaths in the coming months and years is the availability of an effective inoculation against SARS-CoV-2, the novel coronavirus that has killed over 1.2 million people and infected more than 50 million others.

Yesterday, Pfizer and BioNTech announced that its candidate vaccine is “90% effective” in preventing covid-19. So far, over 30,000 people have been enrolled in their randomized placebo controlled blinded trial. Of the 94 confirmed cases, most occurred among people who received a placebo injection, not the actual vaccine.

This alone is cause for celebration. Potentially. Many important questions remain unanswered. The first point that bears understanding is that “90% effective” means that many fewer test subjects who received the two-dose series of the real vaccine candidate *developed symptomatic disease*—the constellation of symptoms we call covid-19 disease. That does not necessarily mean that 90% fewer people became *infected* with the coronavirus itself. That's important because if a vaccinated person can still be infected, they might very well be able to pass along the disease to others who in turn may develop life-threatening covid-19, even if they themselves are at far lower risk of developing symptoms, let alone a bad or life-threatening case. Moreover, the fact that 90% fewer people who received the vaccine developed symptomatic disease could still end up being a kind of statistical mirage. We know that overall fewer than 1 percent of persons die as a result of being infected with SARS-CoV-2. If it turns out that those people are *all* among the 10% of the cases that still develop symptomatic disease despite vaccination, then today's results will have been highly disappointing in the final analysis. This isn't to say that this is what happened. Rather, Pfizer released one piece of information—“datum” not “data.” We are waiting and wanting more.

For example, if this vaccine works as well as is hoped and hyped, for how long will it provide protection? (The vaccine uses mRNA vaccine technology that has only recently become feasible and has never been approved for similar purposes). Does the vaccine protect the elderly? Does it protect those with immune system dysfunction? All of these questions linger. But perhaps the single piece of information we most need that could signal that we are truly closer to being able to cast our masks aside and end our physical distancing efforts is whether or not the vaccine prevents infection and spread of the disease. If it does, 2021 will see the beginning of normalcy, though rollout will take many months or longer.

Other vaccines are in offing as well. Some may turn out to have fewer side effects. Some may work as well or better than this one. Some may not require storage in -80°C freezers—a rarity in some parts of the country, and certainly in some regions of the world.

Today's news, though, exceeds expectations. The trial was designed to be “successful” even if it was found to be far less than 90% effective at preventing symptomatic disease. In that light, and with data from other vaccines expected in the weeks and months ahead, there is cause for more than our usual “cautious pessimism,” and perhaps reason to enjoy a moment of measured optimism.

—Jeremy Samuel Faust MD MS

POLICY BRIEFING

A third wave of coronavirus infections at the White House.

Overshadowed by the nation’s attention on the Biden-Harris victory came the stunning, albeit not surprising news from the White House—Chief of Staff Mark Meadows and six administration officials around him have tested positive for covid-19. The new outbreak [swelled](#) to eight positive cases—six more in the White House and one connected to the Trump campaign.

This is the third “wave” of coronavirus infections to hit the White House. In the beginning of October, the world learned that President Trump and Melania Trump had tested positive for covid-19, in addition to a handful of other administration and military officials.

COVID-19 at the White House – Round 3

Name	Position	Category	Result	Severity	Contact of	Quarantine Status	Last Result Date
Mark Meadows	Chief of Staff	Administration	Positive				November 4, 2020
Nick Trainer	Campaign aide	Other	Positive				November 6, 2020
Cassidy Hutchinson	White House aide	Other	Positive				November 6, 2020
Charlton Boyd	White House aide	Other	Positive				November 6, 2020
White House aide 3	White House aide	Other	Positive				November 6, 2020
White House aide 4	White House aide	Other	Positive				November 6, 2020
White House aide 5	White House aide	Other	Positive				November 6, 2020
Ben Carson	Secretary of Housing and Urban Development	Administration	Positive				November 9, 2020

Table: Benjy Renton • Source: Multiple sources • Created with Datawrapper

Immediately following the outbreak, my colleagues Peter Walker, Dr. Jesse O’Shea and I joined to create a public dashboard tracking the outbreak through public reports of individuals connected to the White House. Our [latest version](#) of the first round of infections included 385 total individuals involved and 40 positive cases, many of which can be traced back to the Rose Garden event on September 26 announcing Amy Coney Barrett’s nomination to the US Supreme Court. A [second round](#) of infections occurred in late October centering around Vice

President Pence’s chief of staff Marc Short and four other individuals connected to the vice president.

Meadows, who tested positive on Wednesday, initially [told others](#) not to disclose his diagnosis. Meadows attended two major events on Tuesday (Election Day), presumably while infectious—an event at campaign headquarters and an election night party at the White House on Tuesday night. Our tracking team has launched a new [dashboard](#) and is in the process of identifying individuals present at these events. Currently, in addition to Meadows, the other individuals who have tested positive include Nick Trainer (a campaign aide), as well as Cassidy Hutchinson, Charlton Boyd and three White House aides. On Monday, another case was [reported](#), this time in Housing and Urban Development Secretary Dr. Ben Carson, who attended the election night party at the White House. Meadows has rarely worn a mask in public and has repeatedly fought with science and public health advisers. “We’re not going to control the pandemic,” he told [CNN](#) on October 26. “We are going to control the fact that we get vaccines and therapeutics.”

—Benjy Renton, <http://www.whcovidtrack.com>

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Brief19 is a daily executive summary of covid-19-related medical research, news, and public policy. It was founded and created by frontline emergency medicine physicians with expertise in medical research critique, health and public policy.