The COVID-19 pandemic "officially" began on March 11, 2020, per a declaration by the World Health Organization. Americans are still in its throes and are wondering when it will end.

COVID isn't done with us, even though we may be done with it. Average daily case reports are up over 20 percent, and the Upper Midwest continues to see more cases. But as statistics show, overall cases are down compared to this past summer of 2021, with three out of five Americans now fully vaccinated.

That statistic leaves many of the vaccinated feeling like they've been held hostage by a group of people who seem to think only of themselves. Cases surge yet again in parts of Europe, particularly in German-speaking countries, as this is being called the "fourth wave." It gives scientists and clinicians pause as they worry if the same will occur here--again.

'Get Your Booster'

On November 19, the Food and Drug Administration (FDA) and Centers for Disease Control (CDC) announced that all adults—ages 18 to 49—who'd already received Moderna or Pfizer vaccinations more than six months ago could get a booster. Americans over 18 who got Johnson & Johnson have already been cleared to get a booster two months after their dose.

It was welcome relief for public health officials who said a decline in immunity was to be expected. They also haven't let go of their initial and critical message to please get vaccinated, period, if anyone hasn't.

"We can give all the booster doses we want and until we get people vaccinated, or they all get infected, we're going to continue to see the transmission of COVID," said Anna Durbin, MD, an associate professor at the Johns Hopkins University School of Medicine, to ABC News.

This year, for those anticipating a "pandemic-free" holiday season after the confining restrictions of 2020, the answer is "maybe not" as cautionary messages from health experts continue to echo via multiple media outlets.

No End but an Endemic

The goal for all Americans and the world is for COVID-10 to become endemic, those experts say. That means it will still exist, but we'll have fewer outbreaks, and will see fewer hospitalizations and deaths.

"I think it's becoming slowly part of the furniture," Andrew Noymer, Ph.D., an epidemiologist at the University of California at Irvine told The Washington Post. "I don't want to wear scuba gear everywhere I go. This is just part of the human environment now."

With no definite answers, we impatiently rely on hope, and the predictions of those experts who speak in terms like "certainly possible."

That's how Joshua Petrie, an epidemiologist at the University of Michigan School of Public Health described to Vox the potential for some regions of the country to be in an endemic phase next year. He also said we should think about endemicity more like a "dimmer switch," instead of "an on-off switch."

When he spoke to The New York Times, Anthony Fauci, MD, said that Americans should think of the current pandemic as a "mixed bag." He did acknowledge that "all pandemics burn themselves out," but there's a downside to that —that more people will die and get sick.

"Or do you want to do something about it to prevent further deaths and further illness?" he asked during the podcast.

He also said that he'd "prefer that people do this [get vaccinated] on their own accord because of their realization of their responsibility to themselves, their families, and society. If that doesn't work, I am all in favor of mandates."

Answer Depends on Who's Asked

A group of esteemed scientists—more than 100 —weighed in on the "When? question for the journal *Nature* last January, and 90 percent of them said that the coronavirus could indeed become endemic. That depends upon immunity acquired when a person becomes infected or gets vaccinated epidemiology 101.

As the article noted, flu and the common cold—which are caused by four coronaviruses—may be endemic, but annual vaccines and acquired immunity allow us to lead a normal life without "lockdowns, masks and social distancing." Still, people get sick and die from flu—globally, approximately 650,000 people each year.

Jeffrey Shaman, an infectious-disease researcher at Columbia University in New York City, said he expects COVID-19 to establish its seasonal pattern of annual winter outbreaks similar to flu.

Mark Dybul, MD, CEO of Enochian BioSciences and a professor at Georgetown University Medical Center's Department of Medicine, is known as an accurate "COVID predictor." In a sit-down at a Fortune conference, he outlined three potential scenarios for the virus's future.

He thinks that by spring, Americans may deal with a vaccine-resistant variant. "There's simply no way you can have such low rates of vaccination around the world with the virus ping-ponging between vaccinated and unvaccinated people," he said.

Dybul offered up three possible scenarios for the fate of the virus. The first is that if vaccines can't control the virus, we now have treatment including the Pfizer antiviral pill, Paxlovid, that reduces hospitalization by nearly 90 percent.

In addition, the FDA has created its new Coronavirus Treatment Acceleration Program (CTAP) with 670+ drug development programs in planning stages, and 470+ trials reviewed by the FDA. Most importantly, 11 treatments are currently authorized for Emergency Use, with one actually approved for use.

On November 16, Amcyte Pharma of Seattle announced it was launching Nasitrol spray for sinus irrigation. "In this pilot study, a nasal spray with I-C [Iota-Carrageenan] showed significant efficacy in preventing COVID-19 in healthcare workers managing patients" with the disease. That was the determination of a study that included multiple authors and researchers, published in October in the *International Journal of General Medicine*.

Dybul's second, most feasible option, he says, is that COVID will behave like flu for wealthy countries but be much stronger and harmful in poorer countries.

His third scenario appears to be most dire, with the virus mutating faster than science can control it. This possibility will be a major risk for unvaccinated populations, a panel of disease experts also told Reuters.

The Role of Human Behavior

The World Health Organization hopes that 70 percent of the world's population will have been vaccinated by January 1, 2023.

Members of the Reuters panel were much more optimistic than Dybul and said they thought the highly contagious Delta variant would be history by the end of November 2021. That group included Chris Murray, MD, DPhil, a leading disease forecaster at the University of Washington.

"We'll go into a very modest winter increase" in COVID-19 cases, he told the agency, adding that with no major new variants, COVID could start "to really wind down in April."

At the end of the day, to coin a well-worn phrase, there's probably only one factor that will determine "When will the pandemic 'end'?"

CDC Director Rochelle Walensky, MD, told a group of reporters in early October that "We have a lot of the science right now; we have vaccines. What we can't really predict is human behavior. And human behavior in this pandemic hasn't served us very well."