The first problem was vaccine supply. Now, it’s demand.

Thursday marked a major milestone in the United States’ COVID-19 vaccination campaign: 200 million shots given in President Biden’s first 100 days in office. Over 40 percent of the US population now has at least one dose of a COVID-19 vaccine.

But over the past week, the average number of vaccinations reported per day started to fall. Last week, the US was averaging around 3.3 million shots per day. This week, that number dropped to around 3 million shots per day.

Every one of those shots takes us another step closer to the end of the pandemic in the US. The slowing pace, though, is a warning sign that we’re reaching an inflection point where the supply of COVID-19 vaccines will outpace the demand. It’s already happening in some places: states have vials of vaccine, but people aren’t signing up for open appointments.

We’re reaching that point because almost all of the people most eager to get vaccinated have already gotten their shots, according to a Kaiser Family Foundation report released this week. Polling from the end of March found that 61 percent of US adults wanted to get vaccinated as soon as possible — around 157 million people. We’ve only got around 27 million people to go before we hit that number, which the report says could happen in just a few weeks.

“Once this happens, efforts to encourage vaccination will become much harder, presenting a challenge to reaching the levels of herd immunity that are expected to be needed,” the report read.

Experts warned from the start of the pandemic that it would be a struggle to vaccinate everyone. A pocket of people in the US is skeptical of any and all vaccines. For some people, the fast development and rollout of the COVID-19 vaccine seemed worrying; for others, the politicization of the pandemic means that they don't think the virus is enough of an issue to go and get a shot.

Reaching some of those people will be harder than others. There's a group of hard-line anti vaxxers who probably won't ever get the shot, or at least won't for a long time. People who identify as Republicans are most likely to fall into that category. No matter what outreach strategies doctors and officials use, this group of people will still probably turn the shot down.

"As long as there are places with more supply than demand, then there is more work to be done on demand,"

But a significant chunk of the people who aren't particularly *eager* to get the vaccine say they still probably will get it, they're just not actively tracking it down. That group doesn't want to be first in line; they want to wait and see before they roll up their sleeves. With some effort and creativity, it's possible to get them on board. It'll take changing tactics. Officials may make it easier to get a vaccine by offering walk-in appointments. Communities may offer incentives, like the New Orleans bars and restaurants holding "shot-for-shot" events. People who have questions about the vaccine may prefer to get it at their doctor's office instead of a vaccine site – talking with a trusted doctor is a powerful way to overcome hesitancy.

"As long as there are places with more supply than demand, then there is more work to be done on demand," said Marc Lipsitch, a Harvard epidemiologist, told *Politico*. "If a strategy is only sort of working, which I think is the case, we could do better by experimenting with different approaches."

Figuring out a way to maintain the pace of vaccinations and get the available shots in arms is the next public health challenge of the COVID-19 pandemic. As each person gets vaccinated, they're safer, and their world expands. But they also start being able to protect others – the vaccines make it less likely that they'll carry and spread the virus, as well.

As the number of people who are vulnerable to catching it shrinks, the virus has fewer pathways to travel from person to person. At a certain point, once the vast majority of pathways are blocked off by people who are protected, it will become much harder for the virus to spread – a milestone called herd immunity. It's still not entirely clear what that threshold is for this pandemic. The virus is still very new. But some experts think that about 70 to 80 percent of people in a population need to be vaccinated before herd immunity kicks in.

That's why ending the pandemic isn't individual – it's collective. In order to reduce the risk of COVID-19 for everyone, we have to encourage as many people to get their shots as possible.

Here's what else happened this week.

Research

We Are Turning COVID-19 Into a Young Person's Disease
As more and more adults get vaccinated, the proportion of young people getting COVID-19 is increasing. (Sarah Zhang/*The Atlantic*)

Doctors are testing a prescription video game for COVID-19 'brain fog'
An FDA-approved video game is being trialed to treat "brain fog" in people who have recovered from COVID-19. (Nicole Wetsman/*The Verge*)

Development

Shots in Little Arms: When Can Kids Get the Vaccine?
The vaccines are not yet authorized for people under 16 in the US, leaving many families wondering when their kids will be able to get vaccinated. This article takes you through some FAQ on the issue. (Paola Rosa-Aquino/*Intelligencer*)

CDC Director Recommends Pregnant People Receive COVID-19 Vaccines
A new study in the New England Journal of Medicine looked at 35,000 pregnant people who had received a COVID-19 vaccine, and found that the vaccines were safe – for both parent and child. (Rachel Treisman/*NPR*)

What we're learning from the rare cases of COVID-19 in vaccinated people
A very small number of people who get vaccinated still get COVID-19. Here's what researchers are learning from those cases. (Nicole Wetsman/*The Verge*)

CDC committee backs Johnson & Johnson COVID-19 vaccine
An advisory committee to the CDC recommended that the government lift the pause on the Johnson & Johnson vaccine, finding that the benefits of the vaccine far outweighed the very small risk of a complex clotting disorder. (Nicole Wetsman/*The Verge*)

Perspectives

> *The inoculation process has transformed into a tongue-in-cheek fashion choice; a Band-Aid plastered on your shoulder is the spiciest trend of the summer. We've all lived through an eternity of fad skirmishes – boxers vs. briefs, Coke vs. Pepsi, Nintendo vs. Sega – but nothing holds a candle to 2021 and our appointment for a subdermal, antibody-producing serum.*

— Luke Winkie writes for *Vox* about the vaccine factions forming online.

More than numbers

To the people who have received the 993 million vaccine doses distributed so far — thank you.

To the more than 145,098,784 people worldwide who have tested positive, may your road to recovery be smooth.

To the families and friends of the 3,077,900 people who have died worldwide — 571,001 of those in the US — your loved ones are not forgotten.

Stay safe, everyone.

https://www.theverge.com/2021/4/24/22399889/vaccine-supply-demand-antivirus-newsletter-covid