

What we know about COVID-19 vaccines in Mass. — and what we don't

Who gets it first? What are the side effects? What should I do if I'm pregnant? Your questions about the new vaccines, answered.

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The first patient enrolled in Pfizer's COVID-19 coronavirus vaccine clinical trial at the University of Maryland School of Medicine in Baltimore on May 4, 2020. ASSOCIATED PRESS

Sometime this month, the first Massachusetts residents could begin to get vaccinated against COVID-19, hopefully signaling the start of the end of the grueling pandemic. But the record-time arrival of these vaccines raises a host of questions from a wary and beleaguered public: How bad are the side effects? How long will immunity last? Will I have to keep wearing a mask after my shots?

The Globe reached out to public health authorities in Boston and across the country to tell readers what the experts do — and don't — know about the vaccines that hundreds of thousands of us will be receiving in the coming months.

Who will get the vaccine first?

Health care personnel — including doctors, nurses, cleaning staff, clerical workers, and food service employees — will have access to the vaccines first, along with residents and staff of long-term-care facilities. Governor Charlie Baker made his priorities clear in a press conference Thursday at the Worcester field hospital, saying, “Health care workers and long-term-care folks are absolutely going to be up near the top of the list.” The state has until Friday to submit its vaccine distribution plan to federal authorities. Baker said more details about the plan would come Monday.

How many people will get the vaccine in the first phase?

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If Pfizer's application for emergency use is approved next week, Massachusetts expects to receive an initial shipment of 60,000 doses, and up to 300,000 doses by the end of the year or first week of January, once Moderna's emergency-use authorization is granted, said Dr. Paul Biddinger, director of emergency preparedness at Massachusetts General Hospital and chairman of Baker's vaccine advisory group. (The numbers represent the first doses of the two-dose regimen. The government's federal allocation system will automatically deliver the second dose, according to Biddinger.)

Even Baker predicts the rollout “will probably be a little lumpy” as distribution gets up and running. “Because there are definitely more than 60,000 health care workers and residents of long-term-care facilities in Massachusetts, I think there’s going to have to be a degree of subprioritization,” Biddinger said, “both potentially at the state level and potentially at the hospital level, just because there won’t be enough vaccine for everyone on day 1.”

I’ve heard the Moderna and Pfizer vaccines require two doses. Do I really need both shots?

Indeed, both Moderna’s and Pfizer’s vaccines require two shots, administered 21 and 28 days apart, respectively. Dr. Daniel Kuritzkes, chief of the division of infectious diseases at Brigham and Women’s Hospital, noted this two-dose regimen is not uncommon for vaccines. The hepatitis A vaccine, for example, is given in two shots, spaced at least six months apart. Some young children need two doses of the seasonal flu shot.

And yes, you need *both* doses to develop enough antibodies to fight off infection.

“We know from the early phase studies of these [COVID-19] vaccines that you get some antibodies made after the first vaccine, but you don’t really get the high titers of antibodies that we think are necessary to be protective until after the second shot,” Kuritzkes explained.

The downside to the two-dose regimen, of course, is that some people may not get both shots. Crucially, doctors and pharmacists will have to educate people on the need to return for their second dose, said Dr. William Schaffner, a preventive medicine and infectious diseases professor at Vanderbilt University School of Medicine. Otherwise, he said, “they won’t be optimally protected.”

I already had COVID-19. Do I still need to get vaccinated?

“Probably yes,” said Dr. David Hamer, an infectious disease specialist at Boston Medical Center. We still don’t know how long immunity to the coronavirus lasts, either from natural infection or vaccination. “There have been a few cases of reinfection,” Hamer noted, “but it seems to be a rare event.”

Dr. Philip J. Landrigan, director of Boston College’s global public health program, said “there’s no downside” to getting vaccinated even if you’ve recovered from COVID-19. But the vaccines initially will be in limited supply,

he said, so there's no need to rush to the front of the line. Dr. Karen Tashima, director of clinical trials in the Immunology Center at Miriam Hospital in Providence, agreed.

"Maybe people had COVID in the last six months and don't need [the vaccine]," she said. "But they might need it if their antibodies [eventually] go away."

After I get vaccinated, do I still need to wear a mask and social distance?

Yes, and for many reasons, according to public health experts. For one, we don't know whether the vaccines will prevent infection and transmission of the virus. All we know is that they should keep you from getting sick.

"It takes two weeks after your second shot to get good immunity. But there'll still be a lot of infection going around. After you get the vaccine, you'll still have a 5 percent chance of getting the virus," Tashima said. "And the studies haven't shown yet that you can't spread the virus asymptotically after you've been vaccinated."