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## North Country Health Officials Outline Distribution Plan For When COVID Vaccine Available

Robert Blechl Oct 30, 2020



FILE - In this May 4, 2020 photo provided by the University of Maryland School of Medicine, the first patient enrolled in Pfizer's COVID-19 coronavirus vaccine clinical trial at the University of Maryland School of Medicine in Baltimore. The U.S. Food and Drug Administration will hold a meeting to discuss the process of approving COVID-19 vaccines. (University of Maryland School of Medicine via AP, File)

As coronavirus cases spike across the nation and close to home, several pharmaceutical companies are entering the final phases of their vaccine trials.

This week, health care and emergency management officials in the North Country discussed when a vaccine could be available, the general distribution plan and who will get it first, the logistics and challenges of distribution, and how long it might take before the region develops herd immunity through a vaccine.

"When it comes, both the hospital [Littleton Regional Healthcare] and the North Country Health Consortium have the ability, no matter what the product is, to deliver it out in an orderly way," said Ed Duffy executive vice-president of LRH and a member of NCHC's board of directors. "The hospital can do it, too, but our mission is somewhat less broad and mostly covers our patients and staff. The consortium is the entire region."

Those distribution plans at the consortium were made years before COVID-19 struck and are part of the region's emergency management planning to meet and overcome any challenge, including a pandemic.

The NCHC, a private nonprofit that relies and grant funding regularly works with the state, has in place a distribution plan that includes points of access as well as vaccine storage and a method to deploy it.

The plan will go into effect through the state and all the state has to do is call up the North Country contact and say go, said Duffy.

No one has heard anything just yet, he said.

"There's a million different moving parts, but we're in a really good place, our plans are really aggressive and they've been vetted by every long-term partner we have," said Jim Richardson, NCHC's public health emergency preparedness coordinator. "The one piece we're just about ready to finish flushing out is when the vaccines come from the state in Concord where do they go once they get into our region, because there's thousands of doses that are represented here."

Vaccine Candidates And Safety

There are a number of vaccine candidates in phase three trails, which is the last study trial prior to obtaining U.S. Food and Drug Administration approval, said Duffy.

The one closest is Pfizer, which is expected to complete its third phase this week, he said.

A vaccine from Moderna is expected to come to the end of its trial phase soon afterward.

Other firms developing a vaccine include AstraZeneca as well as Johnson and Johnson, the latter of which Duffy called an important candidate.

"It's not a foregone conclusion that the phase three trials will come out okay," he said. "We're not going to know until it's completely done what its effectiveness is and whether or not it's actually indeed safe. This is true in all cases. But the data has been good up to now and they're thought to be safe relatively effective. The threshold for effectiveness is 50 percent and I think they are over that. I've heard numbers as high as 70 percent, but let's not get too excited. They're not done yet."

Even the most effective vaccines never reach 100 percent and the FDA won't accept anything under 50 percent.

Academic groups reviewing the data so far are convinced as a group that the process has been robust and they are satisfied, he said.

In order to fast-track a vaccine for distribution, a panel of the nation's leading epidemiologists and not FDA officials will give it the final stamp for emergency use authorization, said Duffy.

"Here's where the problem is," he said. "The first three vaccines have a bunch of logistical problems that go with them. For instance, one of them, I think it's the Moderna one, needs to be reconstituted right at the point it's being given. In other words, you have to take the vials out and mix them together."

The first three also have to be stored at minus 70 degrees centigrade (negative 94 Fahrenheit), a unique temperature as vaccines normally do not have to be stored that cold.

And the third vaccine candidate requires two immunizations many weeks apart.

That has to be tracked and there's a state law that requires any vaccine administered to be entered into a registry, he said.

"The state hasn't even built the registry yet," said Duffy. "It sounds like it will be a while before we get it, but I doubt it. Things will come together with these special emergency acts by the governor. We'll do manual registration of people in terms of who gets what. It will be a paper process, I'm pretty sure."

There are hurdles in the way, but the good news is that Johnson and Johnson's vaccine is kept at normal temperatures for a vaccine and it can be reconstituted, just like the flu vaccine, hours before it's given, said Duffy.

"And it's only one dose," he said. "That one looks the best to me."

And the good news about the more difficult vaccines, if they come to the North Country, is the state has ordered the necessary freezers and the consortium is near to completing a memorandum of understanding with a host facility that can store the big refrigerators and freezers and will allow 24-hour access, said Richardson.

The two freezers are normal-frozen and super-frozen.

The state is also providing the region with a mobile refrigerator, he said.

As the vaccines come in and get reconstituted, they go back into the portable refrigerators and then it becomes the responsibility of those involved in the effort locally to deliver them, said Richardson.

"That was a little bit a wrinkle, a new wrinkle, and that is not how we planned to distribute them initially with all of our written plans that have been in place for years now," he said. "But that was a requirement they had and that put a lot of squeeze on the consortium to identify people who had the adequate training to be able to do that. You have to be able to pivot when they say pivot, and we are in a good place to do that. We have those folks who have been trained to be able to provide those vaccinations once they become available."

Duffy has often said he'd be the first in line to get a vaccine, but with a number of them coming he said it might now be worthwhile to wait and see which one of the best and most effective.

When it's at last approved and available, safety will not be an issue, he said.

"It will be safe, it will be effective and people should consider getting it, because if we don't get over 50 percent of the population or so to take it, we're wasting our time," said Duffy. "Fifty percent - then you're getting true herd immunity through vaccination, which is really the way you're supposed to get herd immunity in the 21st century."

Fifty percent reaches herd immunity and 70 percent a little more, he said.

In the meantime, there's a number of problems for the FDA to figure out, said Duffy.

"They hired McKesson [Corp., a pharmaceutical distribution firm] as a logistics company as well as doing everything else to be the distributor," he said. "McKesson is going to have to figure out how this happens. I'm sure they're working furiously on it."

Although not 100-percent certain, the current consensus is that a vaccine will be available some time in December, he said.

Exactly when it will be ready for deployment in the North Country remains to be seen, but health officials are hoping by December or early next year, said Duffy.

Distribution

Once a vaccine is available for the region, Richardson outlined the plan for distribution and who will get it first.

Under U.S. Centers for Disease Control guidance, people are divided into five tiers.

Tier 1 is made up of the public safety group of first responders and first-line health care workers as well as residents and staff members of long-term care facilities.

Tier 5 includes the general population.

"Right now, we are only looking at Tier 1 folks," said Richardson. "The plan that we have in place comes from the state, and then at the regional level we have our own plan that aligns with the state plan."

Tier 1 groups include the sheriff's department, county jail workers, and police, fire and EMS, who are all in the high risk-category because of their regular interactions with the public.

For them, two different distribution models will be employed.

One model is a fixed site that Richardson said was discussed on Thursday with the unified command staff, which includes emergency manager from North Country municipalities.

"They chose two fixed sites and these fixed sites are only going to be open those Tier 1 folks and the public safety group because the initial vaccines that become available are going to be very limited," he said.

The fixed sites submitted to the state on Thursday are in Lancaster.

The sites haven't been approved yet by the state, but the intent is to have EMS providers, paramedics and advanced EMTs provide the vaccinations for public safety personnel, with support from the National Guard, which will not administer vaccines, but will work in a logistical capacity.

And because the North Country is a large geographic area with limited roadways, it would not be optimal for Tier 1 people in Pittsburg or other distant towns to drive to Lancaster, he said.

To address that, the second model involves a group of EMS providers who will act as a strike team to provide vaccinations to safety officials in four different geographical areas around the North Country to ensure that as many Tier 1 groups as possible are captured, said Richardson.

The last area in the second model that being fleshed out is Haverhill.

The models have been approved by both the unified command staff and the state.

Healthcare workers in general are being provided vaccines directly from the state.

The second group in Tier 1, the residents of long-term care facilities, a high-risk group because of their age and health conditions, and the facilities' staff members have two options now, one announced a week ago by the federal government, said Richardson.

They can partner with Walgreen's and CVS to have their residents and workers vaccinated.

The vast majority of the region's long-term care facilities, though, will go through NCHC's public health network for vaccinations, and NCHC has agreements with them to provide their residents and employees with a vaccine once it becomes available.

"We're not even looking at Tier 5 yet," said Richardson. "The general public should know that when they see Tier 1 groups being vaccinated they should not assume Tier 5 is right behind it because that just won't be the case. It will be months down the road."

When it comes time for the general population, distribution to residents in the North Country will be done like any normal immunization, said Duffy.

Likely, with the current precautions being taken during the pandemic, immunizations will be administered with residents driving up to a set location in a covered area, said Duffy.

Fortunately, whatever the method, the region is ready.

"It's really not a problem for us and the consortium to solve," said Duffy. "If you get the vaccine to us, we can deliver it."

**Immunity** 

Once a vaccine is deployed, the New Hampshire Division of Public Health Services and Immunization has told the NCHC to prepare for an eight-month effort to sufficiently vaccinate the North Country population, said consortium representatives.

"I'm hearing optimistically that by the Fourth of July, if a vaccine comes relatively soon, like in January for everyone, that we could be at good levels if people are willing to take it," said Duffy. "I'm counting on more around Labor Day. I've heard people, not doomsayers, but people who know what they're talking about, say it could be the whole of 2021. That would be awful for all of us for a lot of reasons."

As for the coming winter, Duffy pulled no punches.

"I think that we're going to see a bad year," he said. "There's no question about it. Usually, it doesn't get this bad this fast, and its' gotten really bad really quickly in terms of COVID in the state. We're much worse than we were in the lull time. Our peaks in new cases per 100,000 population are at the same height they were at the end of April and early May."

He also pointed out a troubling trend.

"Cases in U.S. rural areas are outstripping metro areas by quite a bit," he said. "If you go back from March, urban populations led in cases until approximately the middle of August. Now it's flipped. It flipped at the end of August to early September to be more prevalent in rural areas. It's scary for us."

As of now, though, there is a small silver lining.

"Our infection rate is much better, though," said Duffy. "And the hospitalization and death rates are lower, probably because it's younger people who are now getting it."

Another upside is that unlike influenza and colds, which mutate from natural selection, coronaviruses don't mutate to the same extent or mutate meaningfully, or least they've never demonstrated that characteristic, said Duffy.

"Once in a while, the spike protein will change slightly, but it doesn't meaningfully affect infectivity," he said. "At least that's been the experience with coronavirus up to now. Part of what the flu does for a living is change its coat to avoid detection. These don't have that in them. You're going to get random mutations, which make it less infectious or maybe a little bit more, but it's not part of its nature to do so."

Will the coronavirus eventually become endemic, meaning it circulates throughout the year, just as the flu?

"I think its on track to become endemic," Duffy predicted. "Every year now in the fall, you'll get the flu shot and get a SARS-CoV2 immunization. Hopefully, they can combine them and put them in the same [dose]. It's a new thing you're going to be getting."