



Town of New Castle, NH
Settled 1623
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COVID Update March 26, 2021

1) Please Maintain your vigilance: My first plea is that you not relax your community mitigation measures- and that you refrain from travel over at least the next 1-2 months. We are so close to being able to open up more consistently, but cases are rising and opening too quickly may cause another case spike.

For more detail: CDC Director Warns the US Could See Another “Avoidable Surge” US Centers for Disease Control and Prevention Director Dr. Rochelle Walensky warned on Monday that the United States could see “another avoidable surge” of covid-19 if mitigation measures such as mask wearing, physical distancing, and avoiding crowds or travel aren’t followed. Walensky said, “As I’ve stated before, the continued relaxation of prevention measures while cases are still high and while concerning variants are spreading rapidly throughout the United States is a serious threat to the progress we have made as a nation.”

2) Phase 2B, or people age 50 and older can register for the vaccine. This is through the new “VINI” system. About 100,000 of the eligible people have chosen to register already. If you qualify and you have not done so, please register now.

Here is the general information webpage:

<https://www.vaccines.nh.gov/>

VERY IMPORTANTLY, check your SPAM folder regularly after you have registered. Some will receive registration confirmation that is filtered to spam. Additionally, use your home email account as work emails have more spam filters.

From WMUR Tuesday March 23. As Phase 2B vaccinations continue, we’re hearing about frustrations and success stories. The volume issues that plagued the state’s VINI registration website have settled down, but there is still some confusion out there.

One problem some people are encountering is being unable to get a spouse vaccinated at some Walgreens locations. The way the system is set up, an eligible person registering for a vaccination can also register an eligible spouse without needing to set up an additional appointment. But some people with appointments at Walgreens were told that a vaccine wasn’t available for their plus-one. State officials said there has been some confusion, and the “plus-one” system should be honored at all vaccination locations, including Walgreens. Anyone who has a problem should call 211.

As vaccine supplies increase, the number of appointments available is also increasing, and New Hampshire is once again holding a mass vaccination event at New Hampshire Motor Speedway in Loudon. Appointments are required for the event, which is being held Saturday and Sunday. The Pfizer vaccine will be offered at the event, and the state hopes to vaccinate about 8,000 people.

As I am writing this early this week, look for Governor Sununu's statement on Thursday March 25 about when those 16 and older can register for the vaccine.

3) For fully vaccinated individuals- [Can Vaccinated People Be Together Unmasked?](#)

CDC says yes, but only in household settings

- A fully vaccinated household may visit another **one** fully vaccinated household, or **one** low-risk unvaccinated household, without anyone wearing masks.
- Everyone must wear masks in public, at work, and when in a medium or large gathering.

Here is the link to NH Guidance for fully vaccinated people. (if the link does not work, please just cut and paste it into your web browser)

<https://www.dhhs.nh.gov/dphs/cdcs/alerts/documents/covid-19-update37.pdf>

4) For the scientists in New Castle:

Brief 19, March 24, 2021- Vaccines decrease coronavirus disease *and* infection among healthcare workers, several new studies find. We may later find that this also applies to non-healthcare workers.

As vaccine distribution continues, marked with the passing of 100 million in the United States vaccinated last week, four important research communications released yesterday in the *New England Journal of Medicine* describe various successes of vaccination programs among healthcare workers. Three of the letters focus on infection rates among the vaccinated workers and another reported on antibody levels in the blood of vaccinated participants.

One letter (Nir-Paz and colleagues) comes from researchers in Israel, a country which has had one of the fastest mass vaccination programs of any nation. Researchers studied the effectiveness of the Pfizer/BioNtech mRNA vaccine among healthcare workers. At baseline, 10 percent of the 6,680 healthcare workers across a two medical center campus in Jerusalem were found to be afflicted with covid-19, most of which was believed to be from community (as opposed to hospital) spread. Over an 8-week period beginning in December, nearly 85 percent of the non-infected workers were vaccinated. A notable decline in SARS-CoV-2 cases was seen among healthcare workers starting two weeks after the first dose and remained low one month after vaccination. Importantly, the researchers found that in addition to the vaccine-associated reductions in the number of new cases (including both symptomatic and asymptomatic



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infections), the number of new infections remained low even when a variant of concern (the United Kingdom B.1.1.7) surged among the general population.

Two other letters published simultaneously demonstrated similar success among healthcare workers. One, from the United States (Podolsky and colleagues) found that vaccinations decreased new confirmed infections by a *factor of 50*. Researchers studied the over 23,000 hospital employees who work at University of Texas-Southwestern Medical Center in Dallas. During the first month of vaccinations, 59 percent of employees received the first dose and 30 percent received the second dose of either the Pfizer or Moderna vaccines. When assessing new infections, a marked difference was seen among those unvaccinated compared to those partially or fully vaccinated (2.6 percent versus 1.8 percent versus 0.05 percent). A 90 percent decrease in the number of employees requiring isolation or quarantine was seen, showing that the vaccines effects on workforce preservation was massive.

Similar findings were also seen at Southern California medical centers (Torriani and colleagues). Over 36,650 health care workers at two campuses received a first dose over a two-month period starting in December with 77 percent receiving the second dose in this time frame. Among those receiving just the first dose of the vaccine only 379 of the over 36,650 workers tested positive for SARS-CoV-2; 71 percent of those infections occurred within two weeks of vaccination. After both vaccinations, only 37 out of the over 28,180 workers who received a second dose became infected, corresponding to a positivity rate similar to the UT-Southwestern population of rates (see above). The absolute risk of infection was higher in both the San Diego (1.2 percent) and Los Angeles (0.97 percent) populations compared to earlier vaccine research but many reasons for this are possible, including expanded testing, higher prevalence of the virus, and the appearance of variants of concern.

Finally, new research assessing vaccine responses to people who were previously been infected was published. Given that the initial research the led to the US Food and Drug Administration's granting of emergency use authorization for the Pfizer/BioNtech, Moderna, and Johnson & Johnson vaccines focused on persons who had never been infected with SARS-CoV-2, there remains much to be learned about what kinds of responses we can expect from the previously infected population. Researchers at Children's Mercy in Kansas City (Bradley and colleagues) assessed antibody responses in previously infected healthcare workers after a single dose of the Pfizer/BioNtech vaccine. Baseline antibody levels were checked among 36 health care workers, followed by repeat testing three weeks post-vaccination, among those who had confirmed covid-19 somewhere between 30 and 60 days prior to receiving the vaccine. The results were compared to 152 healthcare workers who did *not* have a prior known covid-19 illness. Not surprisingly given how common asymptomatic infection appears to be, six of the *control* subjects were found to have positive antibodies, consistent with unknown previous infections. When assessed at the three-week point, those who had been previously infected were found to have a higher quantity of antibodies. What is unknown is how long those increased levels will persist.

As the authors of the Dallas study (Podolsky and colleagues) state, these data are important to share with employees who may be hesitant to receive vaccination, despite access to vaccination not being a hindrance. While over 90 percent of healthcare workers in a recent study reported the intention of vaccinating, the real rates have been lower in many areas. We need to continue vaccination the front-line workers, not only for health and safety but for continued workforce preservation.

Brief 19, Monday March 22, 2021-Coronavirus antibody levels of children and adults differ widely in response to infection, new study finds.

The mystery of why SARS-CoV-2, the virus that causes covid-19, currently spares most children from serious disease remains unsolved. It may be that children are less likely to be infected due to a difference in the number of receptors that the virus uses to enter cells. Or it may be that pediatric immune systems respond more favorably to infection. The second explanation is especially important in light of [recent evidence](#) suggesting that far more children in the US have already been infected with the virus, many of whom had few or even no symptoms.

A new study in *JAMA Network Open* provides substantial readouts on the immune-response to SARS-CoV-2 infection, stratified by age. Antibody levels (immunoglobulin G, which reflect longer-term antibodies that develop after an initial infection) among children ages 1-10 were similar to adults over 51 years of age. But older children (ages 11-18), and young and middle-aged adults had markedly lower (approximately 50 percent lower) antibody levels. Also, functional studies of the antibodies' ability to neutralize the virus showed that younger children had better responses than adolescents and young adults.

These new data comport with epidemiologic data (that we have come to take for granted) that children are less likely to develop serious or critical covid-19. In addition, these findings add information that may be more widely applicable than previous studies, as the samples from this study included far more asymptomatic cases and those with mild illness only in comparison to previous studies that focused on sicker and hospitalized children.

The question as to why some of the immune responses that we can measure appear to be less robust in older children and young adults than in very young children and older adults is another remaining puzzle. This study therefore highlights how much we have left to learn. If the very young and the very old have at least some important measurable immunologic responses in common in a quantitatively meaningful way, why is it that the young have experienced far milder clinical outcomes on average? Once this is worked out, the lessons may help us treat not just SARS-CoV-2 but a variety of respiratory illnesses.

Yours In Health,

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