COVID Update April 2, 2021

1. Each one of us is tremendously lucky to be alive in this era of medicine. Data released from a Pfizer study on 2,260 children ages 12-15 who received the Pfizer vaccine reported that it is safe and 100% effective in preventing symptomatic disease. This is simply unheard of in medicine.

2. As of 8am Friday April 2, everyone age 16 and above is eligible to register to get a COVID vaccine. While younger people will not likely get an appointment for a couple of days from now, they still should able to get a first appointment within a few weeks, and if vaccine shipments continue to increase as expected, anyone who has an appointment scheduled can keep checking to see if earlier ones become available.

Because only the Pfizer vaccine is authorized for 16- and 17-year-olds, the state is ensuring that ALL the state run fixed vaccination sites and Walgreen's have Pfizer vaccines available.
A parent or guardian must accompany the teen to the vaccination appointment. Because New Hampshire is restricting vaccinations to people who can prove their state residency, parents must bring that proof with them. Teenagers also have to bring documentation that verifies their age. If they don't have a driver's license or a state ID, a birth certificate or passport will work.

You can register for the vaccine here: https://www.vaccines.nh.gov/

3. As exciting as the vaccination news is, cases nationally, statewide, and in New Castle have been increasing. The CDC just released that COVID was the Third leading cause of death in 2020- behind only heart disease and cancer.
PLEASE do not let down your guard, follow community mitigation measures, and do not congregate in large groups or travel. We would like to avoid a 4th wave.

4. Other Vaccine Updates

a. Novavax

Novavax completed enrollment of 30,000 participants in their US/Mexico Phase 3 trial. Results from studies in the UK and South Africa with the Novavax vaccine show 100% efficacy in preventing severe infection including hospitalization and death from the UK and South African variants. This could be an important advantage for this vaccine.

b. Pregnancy study

The Pfizer and Moderna vaccines were studied in 131 reproductive-age vaccine recipients (84 pregnant, 31 lactating, and 16 non-pregnant) at two academic medical centers. Vaccine-induced antibody titers were equivalent in pregnant and lactating compared to non-pregnant women. Vaccine-generated antibodies were present in all umbilical cord blood and breast milk samples showing immune transfer to the babies. The vaccines showed good efficacy at inducing antibodies in pregnant and lactating women and transfer of these antibodies via the placenta or breast milk. There was no increase in side effects compared to non-pregnant women.

c. Asymptomatic infection

The Pfizer vaccine has shown high efficacy (94%) against asymptomatic infection in Israel. These data are supplemented by several other recent studies. Also a Health Care Worker study in the UK showed a four fold decrease in the risk of asymptomatic infection after a single dose of the Pfizer vaccine. A study of asymptomatic adult patients (n = 39,156) within a large United States healthcare system who underwent COVID-19 testing prior to a procedure showed a 5 fold reduction in positive tests for those who were vaccinated compared to unvaccinated. **All of these data are consistent and very encouraging for the efficacy of the Pfizer vaccine to prevent asymptomatic infection and potentially significantly decrease transmission.**

d. Children and adolescents

See Pfizer information above. The Moderna adolescent study has been enrolling participants since December. Both Pfizer and Moderna announced this month that they have started enrollment in studies of children 6 months-11 years old.

e. Variants

The Pfizer/BioNTech was 100% effective in preventing COVID-19 cases in South Africa, according to the companies.

Moderna has begun a clinical study of a booster vaccine that is designed to achieve better efficacy against variant B.1.351, the South African variant. Pfizer has started a study of a 3rd dose of the current vaccine administered 6-12 months after the first two doses in order to assess immunity against newly emerging variants. Also Pfizer is planning to study a new vaccine targeting the South African variant but trials have not started yet. The current Pfizer vaccine has shown high efficacy (97%) in Israel where the UK variant (B.1.1.7) was the dominant strain.

f. AstraZeneca/Oxford Vaccine- Last Thursday AstraZeneca/Oxford released the results from their Phase 3 trial performed in the US, Chile and Peru. This is an adenovirus vector two shot vaccine (28 days apart). The Phase 3 study enrolled 32,449 people 18 years and older.

The overall efficacy of the vaccine in the prevention of symptomatic COVID 19 infections was 76%. The efficacy was 85% in people 65 years old and older. The vaccine was 100% effective in preventing severe COVID-19 including preventing hospitalization or COVID-19 related death.

It does not have efficacy against the South African variant.

g. Vaccine Durability

Pfizer (PFE) and BioNTech's (BNTX) COVID-19 vaccine is proving effective six months after the second dose, according to an ongoing analysis of the Phase 3 trial participants.

5. For the Scientists on New Castle:

a. Brief 19, 3/31/21- More evidence of vaccine efficacy among essential workers. Real world data matches trials.

Evidence continues to favor the efficacy of the covid-19 vaccines, most recently in the form of data from the HEROES-RECOVER network, released this week in the CDC's *Morbidity and Mortality Weekly Report*. This confidence boost adds to last week's letters published in the *New England Journal of Medicine* that touted vaccines amongst healthcare workers in the United States. The results from this new data set focus not only on healthcare workers, but also first responders and essential frontline workers, such as teachers, hospitality staff, delivery people and retail personnel.

Promisingly, the data showed that there was a 35-fold difference in infection rates when comparing those who were vaccinated to those who were not. In other words, the vaccines demonstrated 90 percent effectiveness at preventing SARS-CoV-2 infection, as measured 14 days after the second dose. Even after the first dose, an 80 percent efficacy rate was achieved.

Data were collected between December and March from nearly 4,000 research subjects from a diverse group of jurisdictions around the United States, including Arizona, Florida, Oregon, Minnesota, Texas and Utah, some of which experienced critically high levels of covid-19 disease during the time that the study covered. However, Arizona was by far the most tested region. At the time of analysis, nearly 64 percent of the cohort of people being followed had received two doses of an mRNA vaccine and another 12 percent had received one shot. Subjects tended to be more often female, between the age of 18-49 year, and White.

These data should be easily applicable to the general population and should provide further reassurance of vaccine importance, assuming that major changes in these dynamics do not emerge due to new SARS-CoV-2 variants. Nevertheless, given the preponderance of White subjects in this study, future studies showing effectiveness among Hispanic, Black, and other populations may help increase vaccine interest in non-White groups.

b. Brief 19- New survey study highlights alarming rates of vaccine refusal among US parents. -paraphrased

A new preprint recently published on *OSF Preprints* explores vaccine hesitancy among and resistance among United States parents. This paper is part of a series of papers by The Covid States Project, a 50-state ongoing survey on attitudes and behaviors regarding covid-19.

Between February 5 and March 1, 2021, the researchers surveyed 19,789 individuals across all 50 states plus the District of Columbia. Individuals were surveyed via an online platform regarding perspectives related to covid-19 vaccines. The main findings are:

Covid-19 vaccine hesitancy and resistance by age, gender, and parental status:

- 39 percent of mothers were unlikely to vaccinate their children.
- 23 percent of fathers were unlikely to vaccinate their children.
- 43 percent of younger mothers (ages 18 to 35) were unlikely to vaccinate their children compared to 35 percent of older mothers (ages 36 to 60); the difference in hesitancy/ resistance among younger fathers (21 percent) and older fathers (23 percent) was similar.
- 37 percent of young mothers would not get the covid-19 vaccine for themself compared to only 26 percent of young women who were not parents. Differences in covid-19 vaccine refusal was similar for older women, younger males, and older males regardless of parental status, and was lower than the 37 percent reported among young mothers.

Covid-19 vaccine hesitancy and resistance by education:

- Among parents without a college degree, 34 percent of parents would not get the covid-19 vaccine compared to 23 percent of similarly educated non-parents.
- There was no substantial difference in vaccine refusal among parents (10 percent) and nonparents (11 percent) with a college degree.

Covid-19 vaccine hesitancy and resistance by parental status and income: Income was broken down into quartiles: < $25k per year, $25k to < $75k per year, $75k to < $150k per year, and > $150k per year.

- The greatest proportion of individuals refusing the covid-19 vaccine was found among those reporting less than $25,000 of income per year. In this group, parents (37 percent) were more likely to refuse vaccination compared to nonparents (27 percent).
- A similar trend was noted for those making between $25,000 and less than $75,000 per year with parents (28 percent) again more likely to refuse vaccination compared to nonparents (18 percent).
- The differences between parent and nonparent vaccine refusal were similar between groups and remained low (9 to 13 percent) for individuals reporting annual incomes of greater than $75,000 per year.

Covid-19 vaccine hesitancy and resistance by parental status and race:

- The within-race differences between parents and nonparents regarding vaccination refusal did not vary substantially, often between 1 percent to 8 percent.
- Between-race differences in vaccination refusal were noticeable with Asian Americans least likely to refuse vaccination (9 to 10 percent refusal rate) and Black parents most likely to refuse vaccination (30 percent refusal rate). The refusal rate between Black nonparents, Hispanic parents/nonparents, and White parents/nonparents was similar (18 to 25 percent refusal rate).

Numerous limitations to survey studies like this exist; including the fact that surveys like these mostly reach technologically savvy individuals. In addition, the survey data are limited in their ability to explore or explain the *reasons* for vaccine refusal in depth. Nevertheless, the Covid States Project provides important information regarding which populations in the US need to be targeted for educational purposes regarding the safety, efficacy, and importance of covid-19 vaccination.

Please, please get your vaccine when you are eligible.

c. This is a link to Frequently asked Questions for Employers Regarding the Vaccine. It applies to all people:

https://www.nhms.org/Portals/96/Documents/News/BIA-NHHA-NHMS%20COVID-19%20Vaccine%20FAQs%20for%20NH%20Employers%203-21.pdf?ver=onBL5QA5f7jw7QigH_ljOQ%3d%3d

d. For those of you who have solid organ transplants, below is a sobering link for information on how well (or not) the vaccine is working in this group of individuals:

https://www.youtube.com/watch?v=g25kuBQhxlY

e. Attached is an information page for rent and utility assistance for those with difficulty paying due to COVID.

Many thanks to Tony and Diane Coniglio and Laurie Chandler for their contributions to this update.

Yours in Health,

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NEW HAMPSHIRE

Emergency Rental Assistance Program

DOYOUNEEDHELP PAYING YOUR

RENT AND UTILITIES BECAUSE OF COVID-19?

The New Hampshire Emergency Rental Assistance Program provides assistance to eligible residents who cannot pay their rent and utilities due to the COVID-19 pandemic.

Apply at the Community Action Partnership (CAP) agency in your area.

APPLY AT **CAPNH.org** OR CALL **2-1-1**

Community Action Partnership of New Hampshire

Community Action Program Belknap-Merrimack Counties, Inc.

SCS People Helping People Southwestern Community Services

SNHS

TRI-COUNTY COMMUNITY ACTION

Community Action Partnership of Strafford County

2-1-1 Get Connected. Get Help.

NEW HAMPSHIRE

Emergency Rental Assistance Program

DO YOU NEED HELP PAYING YOUR RENT AND UTILITIES BECAUSE OF COVID-19?

The New Hampshire Emergency Rental Assistance Program provides assistance to eligible residents who are experiencing financial hardship due to COVID-19 and are at risk for homelessness, or living in unsafe or unhealthy housing.

TO LEARN IF YOU QUALIFY FOR ASSISTANCE:

APPLY ONLINE AT CAPNH.ORG

- Past-due and future rent payments.
- Utilities, such as electricity, home heating costs, water, sewer, trash.
- Other housing-related costs such as internet and relocation expenses associated directly or indirectly with COVID-19.
- Relocation expenses including rental application fees, utility hook-up fees, and security deposits.
- You may qualify for utility assistance even if you do not receive or need rental assistance

- At least one person in your household has qualified for unemployment benefits, had their income reduced, had significant costs, or had other financial hardship due to COVID-19. Certain income requirements must be met.
- You do not need to be receiving unemployment benefits payments.
- The CAP agency will assist in identifying information needed.
- Eligible households may qualify for assistance for past-due and future rent and utility

Town of New Castle, NH
Settled 1623
Incorporated 1693

payments for a period not to exceed 15 months.

Your Community Action Partnership (CAP) agency will assist you with the application process.

The application can be completed online, or you may request a paper application.

APPLY AT **CAPNH.org** OR CALL **2-1-1**

This is a federally funded through the Governor's Office for Emergency Relief and Recovery. It is administered by New Hampshire Housing, in collaboration with the Community Action Partnership agencies.