

Dear Friends -

First and foremost, we want to extend our wish for good health to you and yours as we all celebrate the end of the year and new beginnings. Second, a huge thanks to everyone who has contributed to our end-of-year appeal, which is now more critical than ever. We have not shared an update in a while, so with apologies, there is a lot here.

We are all very tired of COVID, but unfortunately, it has not tired of us as we continue to deal with COVID on a daily basis. LifeFlight uniquely cares for the most critically ill patients needing specialist care that is often far away, and we continue to meet that challenge multiple times a day.

In our December 2020 update (in what seems far longer than a year ago), Maine faced 227 new COVID cases each day and 214 total deaths, with both numbers increasing. I projected a scenario of 500 cases per day and 700 deaths by spring 2021 if we could not collectively tame COVID.

A year on, despite being one of the most vaccinated states in the country, we are now seeing 1,000+ new cases each day (based on a 7-day average) and have 1,376 deaths in Maine. Our hospitals are completely full with 378 COVID patients, 123 in the ICU, and 60 on ventilators. At this time, 50% of LifeFlight transports are COVID or related. Our hospitals are again delaying planned surgeries and we have National Guard and federal DMAT teams in our hospitals. There is no end in sight as we absorb the fallout from Thanksgiving and look forward to the end of year holidays and new year. Last year, between Thanksgiving and mid-January was the grimmest time of the pandemic. It is déjà vu.

Here is what we are watching and hope you will share with your networks.

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## **The need for community:**

Being together, while maintaining safe gatherings especially for our most vulnerable (elderly, co-morbid health issues, and immune-compromised), is more important than ever. The emotional toll of COVID, including isolation, loneliness, and uncertainty, is overwhelming. We are seeing this every day, often with tragic impacts.

**Our prescription:** Get together, but think about your bubbles, who is part of the gathering, who is traveling, and whether vulnerable members are in the group. Traveling is safe if you pay attention to good practices. Good ventilation is critical. We recognize that an outdoor venue is challenging at this time of year in the north country, but we encourage you to be creative. Consider at-home antigen tests for anyone with any cold or flu-like symptoms before gathering—more on that below. We all need to think and be careful.

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## **Vaccines:**

- Quite simply: they work. People who are not vaccinated have 5x higher risk of contracting COVID, 10x higher risk of hospitalization, and 14X higher risk of death.
- While not everyone who has died of COVID in Maine died in the hospital, we have had around 3,200 hospitalizations in Maine and 1,367 deaths. That is a remarkable and unsettling ratio.

- [New research](#) indicates that without the wide availability of vaccines over the last eight months, we would have experienced more than 1 MILLION additional deaths and 10.3 Million additional hospitalizations.

**Our prescription:** Encourage anyone not vaccinated to get vaccinated. Everyone should get boosted as quickly as possible if you received your original vaccine more than six months ago. Everyone over 16 years of age is now eligible for a booster.

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## Testing:

Testing is critical. In many places, the gold standard are nuclear acid amplification tests (NAAT), of which the PCR type is best known. These tests are often challenging to access, require laboratory analysis, and can have delays in reporting due to volume.

There are increasing numbers of new at-home tests that can produce results in 15-30 minutes. These antigen-based tests are very specific and will confirm a COVID infection, especially if you have any symptoms and are in a community with a high prevalence of transmission. If you do not have symptoms, they are not as sensitive as a PCR test. There is a chance you could have COVID but be asymptomatic if community prevalence is also high. If community prevalence is low and the test is negative, the results are reasonably accurate. You can find your community prevalence by zip code on the [Maine CDC website](#).

**Our prescription:** Consider at-home tests for anyone new to the holiday gathering with symptoms. Consider PCR testing if your holiday gathering is large with many people not in your usual bubble or traveling. Make sure to use an approved test at home [using this website](#).

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## Breakthrough Infections:

- We have experienced several breakthrough infections at LifeFlight. Thankfully, they have all been mild but nonetheless challenging as we are all stretched thin caring for patients.
- Since vaccination became widely available in Maine, the state has had 14,732 breakthrough cases with 466 hospitalizations and 201 deaths.
- The new Omicron variant has a high incidence of immune escape reinfection after COVID or infection after vaccination. Breakthrough infections will increase.
- Our most elderly citizens, those with comorbid conditions such as diabetes, and our immunocompromised citizens are most at risk of a serious breakthrough.
- Again, vaccines work. Since vaccines became available, over 70% of hospitalizations and deaths in Maine have been among unvaccinated patients.

**Our prescription:** Vaccination is essential. We need to continue to use good practices, including masking indoors or outdoors with large groups, keeping our bubbles small, and thinking through holiday gatherings. These actions will help prevent breakthrough infections, especially if elderly or other vulnerable people are in the mix.

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## Omicron:

Omicron, a new variant of SARS-CoV-2, B.1.1.529, was reported to the World Health Organization (WHO). This new variant was first detected in specimens collected on November 11 in Botswana, November 14 in South Africa, and November 29 in the US. It will likely be the predominant variant worldwide by early spring.

COVID is COVID, and the Delta variant still predominates in Maine. The incidence of the new variant is expanding rapidly: within 10 days it is now in over 36 states with rapid increase. Early research remains concerning, and the new variant will be part of every holiday celebration as we cross the end of the year.

What we know or surmise from early signals:

- The transmission rate is very high. The Omicron variant is estimated 2x more highly infectious than Delta as measured by positivity and Rt rates. (South Africa, Denmark, Norway, UK, Washington State)
- In the UK, the variant is described as a 'tidal wave,' doubling in case rate every 2-3 days. Norway and Denmark are reporting similar results.
- The reinfection rate is 5x higher than other variants. (UK)
- The variant is 3.2x more likely to transmit in a household. (UK)
- Omicron seems to have a much higher rate of immune escape for both those who have previously contracted COVID or have been vaccinated. Estimates of immune escape are reaching 75%. (UK, Israel, South Africa, US, Denmark, Norway)
- Omicron seems to have a higher infection rate in the young. (South Africa)
- While most early reports of infections seem to be mild, especially for vaccinated patients, the sheer number of new cases is concerning. (US)
- Vaccine boosters are essential. (Israel, US, UK)

To be determined:

- Immune escape is an issue, but the impact is unclear regarding serious illness.
- Will the illness be more virulent? As noted, early reports of mild illness.
- Will this be more virulent and see higher transmission for the young?
- How well will the vaccines work over time? Boosters appear effective, but more may be required.
- Do the mutations make this more like the common cold (also a Coronavirus), or more like bad COVID, Delta, as we know it today? Often viruses become less severe as they evolve. In the best case, Omicron might signal this trend.

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## Our Bottom-Line Prescription:

- COVID is COVID whatever the variant. We need to get it tamed.
- Vaccination and Boosters are critical to taming COVID. We compare this to our instrument flight rules—**strategic safety**.
- We must remain vigilant, focused, and cautious in our safe practices. Wear masks at work, indoors, with strangers in crowds. Masks also work for influenza, RSV, and the common cold. We liken these practices to the Night Vision Goggles we use—**tactical safety**.
- Please consider your holiday gatherings carefully and assess who might be vulnerable. Consider using home testing kits for holiday gatherings, especially if mixing with those not commonly in your bubble.

To stay healthy, we need to continue to do everything (and more) that we have done for the past 20 months. We cannot let our guard down. Please stay safe and stay healthy through the holidays.

Throughout history, many societies and religions have acknowledged the long dark nights giving way to increased light as we cross the solstice—our best to you for the new year as the light returns.

Tom and Norm.