A Task Force of child health professionals and infectious disease specialists with public health expertise at Children’s Hospital at Dartmouth-Hitchcock (CHaD) has been reviewing the medical literature and monitoring the COVID-19 public health data. We take the full measure of the health and well-being of children, considering developmental, behavioral, mental health and educational aspects in addition to the risk of COVID-19. We have seen firsthand the profound harms to children of school closures and support the American Academy of Pediatrics (AAP), which “strongly advocates that all policy considerations for the coming school year should start with a goal of having students physically present in school.” Therefore,

**AS OF AUGUST 12, 2020, WE RECOMMEND RETURN TO FULL IN-CLASSROOM EDUCATION WITH APPROPRIATE SAFETY MEASURES FOR MOST STUDENTS IN DISTRICTS WHERE THE LOCAL EPIDEMIOLOGY IS CONSISTENT WITH THAT OF OUR REGION.**

Our recommendation is based on our assessment that the harms outweigh the very low rate of infection in children, the generally mild severity of illness when they are infected, the lower likelihood of transmission from children than adults, and the low rates of circulating novel coronavirus (SARS-CoV-2) in New Hampshire and Vermont. Some of the factors that inform our recommendation include:

**Executive Summary on COVID-19 infection in children from Don’t Forget the Bubbles (July 17, 2020)**

> “Around the world, children make up a minority of confirmed cases of COVID-19, usually contributing to between 1 – 5% of total case numbers. This almost certainly represents some undercounting of children in total case numbers as many countries have focused on testing the most unwell, but in some populations which undertook widespread population testing, children still account for very low case numbers. Countries which have produced representative population sero-prevalence studies have found proportionately far fewer children have been infected than adults (young children <10 years in particular).

More detailed information has emerged into childhood severity of COVID-19. A large number of children may be asymptomatic, but the true proportion is unknown. Critical illness is very rare (~1%). In data from China, the USA and Europe, infants and older adolescents appear most likely to be hospitalized and to suffer from more severe disease. Deaths in children remain extremely rare from COVID-19.”

**Children are less likely to spread COVID-19 than adults**

- In a recent review of the literature in the journal *Pediatrics*, pediatric infectious disease experts William Raszka and Benjamin Lee from the University of Vermont conclude, “Almost 6 months into the pandemic, accumulating evidence and collective experience argue that children, particularly school-aged children, are far less important drivers of SARS-CoV-2 transmission than adults.”
- A more recent study from South Korea confirms very low rates of out-of-household transmission, such as schools, of SARS-CoV-2 in 0-9 year olds (1.1%) and 10-19 year olds (0.9%). The media has highlighted that the risk of in-household transmission from 10-19 year olds is comparable with some older adult age groups, but further examination of the study suggests that the estimate for 10-19 year olds is less precise due to the small numbers of contacts traced.
In countries worldwide that have opened schools, including ones that have experienced in-school outbreaks, there has not been a related increase in community transmission of COVID-19.

There is very little COVID-19 currently in our region. As of 8/12/2020:

- Incident Command at Dartmouth-Hitchcock Medical Center (DHMC) has been running weekly models on the COVID-19 cases in New Hampshire and Vermont since March 2020 in order to predict hospital and ICU census. Looking at the DHMC data on hospitalized patients, there was a clear flattening of the curve in mid-April, with hospitalized cases beginning a steady decline across NH as of May 13th.
- New Hampshire currently has only 230 active COVID cases per million people, with 21 new cases/million people per day, on a positive test rate of 1.9%, all desirable metrics as per the Harvard Global Health Institute (globalepidemics.org) and Duke University (covidexitstrategy.org).
- Vermont currently has only 190 active COVID cases per million people, with 9 new cases/million people per day, on a positive test rate of 0.8%, also all below targets.
- Unlike the flu and many other respiratory viruses, children have been spared. No deaths have been reported in those <20 years of age in NH, Vermont, Maine and Massachusetts.
  - In New Hampshire, only 150 out 6861 COVID+ cases (2.2%) have been 9 years of age and younger, with an additional 332 in the 10-19 age group (4.8%). This is a total of 482 (7.0%). Thankfully, only 9 have required hospitalization (1.3% of 705 hospitalizations).
  - In Vermont, only 49 out of 1478 COVID + cases (3.3%) have been 9 years of age and younger, with an additional 113 in the 10-19 age group (7.6%), for a total of 162 (10.9%).

Safety measures should include:

1. **Masks.** We recommend mandatory cloth or medical masks, with no exhalation valves allowed, as they do not filter the exhaled air. At Dartmouth-Hitchcock, if a patient tests positive for SARS-CoV-2 and the patient and any individuals with whom they interact all have been appropriately wearing a mask, then the contacts are considered to be not exposed and we have not required any quarantine. With our mandatory mask policy in place for all staff, patients, and visitors at all Dartmouth-Hitchcock Health facilities, we have experienced minimal transmission within the facilities. The state of NH will require testing or quarantine for similar exposures. Accommodations should be made for those who cannot wear masks due to medical and developmental conditions. Where appropriate, eye protection/face shields in addition to masks should be used by staff where there is a likelihood of exposure to individuals with incomplete adherence to masking.

2. **Physical Distancing.** We agree with the recommendation from the American Academy of Pediatrics for 3-6 foot separation between students. Most of the demonstrated benefit from physical distancing occurs in the first 3 feet. All of the data on 6 foot separation has been in the absence of masks. The most important time for physical separation will be during times when masks are removed, such as snack time and lunch time. It will be important to plan for how this can be done safely.

3. **Stay at home if you are sick.** We recommend at least two checks – at home with a checklist (as well as temperature taking if possible), and then again at first school contact (bus or school entrance) with screening questions and consideration of additional temperature taking when warranted.

4. **Hand washing.** Availability of hand sanitizer in entrances, hallways and classrooms, and focus on frequent hand washing.

There are of course many other layered risk reduction efforts the schools can take, such as reengineering hallways and limiting entrances and gathering spaces, limits on visitors and larger gatherings, and using
ventilation and outdoor spaces where possible. More detailed resources for schools and the public are available at: www.chadkids.org/your-visit/information-about-covid-19

We will update this and other recommendations as needed, based on public health data and expertise from DHMC. It should be noted that the vast majority of observed transmission has occurred outside of the hospital environment, and we suspect that the same will be true for schools.

Our success in minimizing the burden of COVID-19 in northern New England has been built on the communities we serve adopting state and CDC guidance on proven methods for decreasing transmission (masks, distancing, handwashing) along with adhering to state requirements on gatherings and travel. Our recommendations assume that this shared commitment to one another will continue.