NH DIVISION OF Public Health Services
Department of Health and Human Services

Bureau of Infectious Disease Control

Considerations for Transitioning Between School Instructional Models Based on Level of Community COVID-19 Transmission and Impact on Local Schools

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Background:

The spread of Coronavirus Disease 2019 (COVID-19) in New Hampshire in March 2020 resulted in schools transitioning to full-time remote learning for the remainder of the 2019-2020 academic year. In July, the New Hampshire Department of Education (NH DOE) released Grades K-12 Back-to-School Guidance for the return to school in fall 2020. Because of continued COVID-19 community transmission and the unpredictability of the pandemic, schools were asked to plan for different instructional scenarios (in-person, remote, and hybrid) and maintain flexibility to adapt school learning to the evolving pandemic.

Purpose:

The purpose of this document is to provide considerations for when schools transition between the different instructional models in response to the changing community and school-based COVID-19 epidemiology. This guidance suggests an instructional model based on the COVID-19 level of:

1.) Community transmission within the county in which the school resides (or within the cities of Manchester and Nashua for those school districts)

2.) Impact on individual school facilities

These two factors are incorporated into a decision matrix below that specifies a method of instruction suggested by the New Hampshire Department of Health and Human Services, Division of Public Health Services (DPHS). Data related to these metrics will be displayed on the "School" tab on the analytics data dashboard available at: https://www.nh.gov/covid19/dashboard/overview.htm. Each school and school district, however, operates in a unique context and with different facility and space capacity, so school districts can choose to take a more or less restrictive approach, according to the local context. NH DPHS will also work with schools and SAUs to implement public health protective measures based on specific situations.

Determine the Level of COVID-19 Community Transmission:

NH DPHS proposes two different criteria outlined in the table below for determining county COVID-19 transmission level; Manchester and Nashua will continue to have city-level data separated for local decision making. The overall community transmission level should be assigned based the highest level identified by any one of the following criteria. School districts should utilize data from the county/city in which their schools are primarily located.

Criteria	Level of Community Transmission		
	Minimal	Moderate	Substantial
COVID-19 PCR test positivity as a 7 day average	<5%	5 – 10%	>10%
Number of new infections per 100,000 population over prior 14 days	<50	50-100	>100

Determine the Level of COVID-19 School Impact:
To determine the school-specific COVID-19 impact level, NH DPHS suggests three criteria outlined in the table below. The overall level of school impact should be assigned based the highest level identified by any one of the following criteria.

Criteria	Level of School Impact		
	Low	Medium	High
Transmission within the school facility	Zero or sporadic cases with no evidence of transmission within the school setting	One cluster* in the school	Two or more unrelated clusters* in the school with onset (based on source case symptom onset dates) within 14 days of each other
Student absenteeism due to illness	<15%	15-30%	>30%
Staff capacity to conduct classes and school operations†	Normal	Strained	Critical

** A cluster is defined as 3 or more individuals confirmed with COVID-19 who are part of a related group of individuals (e.g., classroom) who had the potential to transmit infection to each other through close contact.*

† *This subjective assessment should factor in a school's ability to maintain adequate staff for facility operations, transportation, teaching, and administrative functions.*

Decision Matrix for Transitioning Between Methods of Instruction:
Using the determined community transmission and school impact levels, schools can use the table below to identify the recommended method of instruction.

		Level of Community Transmission		
		Minimal	Moderate	Substantial
Level of School Impact	Low	In-Person	In-Person	In-Person
	Medium	In-Person	Hybrid	Hybrid†
	High	Hybrid*	Remote	Remote

** Depending on the level of COVID-19 transmission within the school facility and outbreak status, public health may recommend temporary closure of school and remote learning for a short period of time to control transmission before re-opening in a hybrid instructional model.*

† *For limited COVID-19 transmission within the school facility (e.g., contained cluster in a classroom), the school can choose to move selected classrooms or sections of the school to temporary remote learning while maintaining other normal school operations.*

This matrix should serve as a guide for schools to consider when planning and making decisions around when to move between methods of instruction. NH DPHS will work with schools and districts to implement public health prevention measures and conduct contact tracing in the school setting for any person identified with COVID-19, and the State will work with local schools and communities to ensure adequate testing capacity and contact tracing resources.

In some circumstances, schools may want to take a more or less restrictive approach than what is suggested in the table above. For schools that go to remote learning, for example, that decision can be a short-term

remote learning period (e.g., 2 weeks), or potentially longer; however, NH DPHS recommends schools minimize out-of-school learning to the extent possible and maximize in-person learning as resources and staffing allow. Most schools during the pandemic have been able to maintain full in-person or hybrid models of learning with limited transmission occurring in K-12 school settings. As of January 24, 2021, more than 1,700 students and staff associated with New Hampshire K-12 schools have been diagnosed with COVID-19 during the 2020-2021 school year affecting almost 400 different schools. There have been 47 clusters identified in non-residential K-12 schools in NH to date. With the exception of one larger cluster (N=49 cases), the remaining 46 clusters included 293 associated infections with an average of about 6 infections per cluster (range: 3-21 cases per cluster). Therefore, hundreds of potential exposures that have occurred in K-12 school settings have resulted in little or no identified transmission, and no K-12 schools have experienced larger outbreaks.

Similar to NH's experience, there are now multiple recent studies showing that K-12 schools are at low risk for spreading COVID-19.[1-4] A recent study of public K-12 schools in North Carolina found that implementation of mitigation measures (6-foot social distancing, mask wearing, hand washing, daily symptom monitoring and temperature checks) resulted in a low number of infections acquired within schools.[1] In this study, there were 773 community-acquired cases of COVID-19 identified, but only 32 subsequent secondary infections and no instances of child-to-adult transmission.[1] Another study of primary schools in Norway identified 13 people with COVID-19 in the school setting resulting in 292 contacts.[2] Close contacts were followed and systematically tested, and only 3 additional infections were identified despite only 1 meter (about 3 feet) of recommended physical distancing without routine face mask use.[2] A third study of 17 schools in rural Wisconsin with high compliance with mask-wearing found a lower incidence of COVID-19 in schools conducting in-person instruction compared to the surrounding community (about 37% lower), and among 191 people identified with COVID-19 in schools, only seven (3.7%) were associated with in-school transmission with all episodes of in-school transmission occurring in students.[3] Finally, a study published by the U.S. Centers for Disease Control and Prevention (CDC) evaluated trends in COVID-19 among persons aged 0-24 years in the United States. National trends did not suggest that infections in K-12 aged children drove increases in community transmission.[4] Nearly two-thirds of K-12 school districts across the U.S. offered either full or partial in-person learning, but there were limited reports to the CDC of outbreaks occurring within K-12 schools, and incidence of COVID-19 in counties where K-12 schools offered in-person learning was similar to that in counties offering remote learning.[4]

NH DPHS continues to recommend that:

- Schools maximize physical distancing between students with a goal of 6 feet of separation, but no less than 3 feet of separation (i.e., 3-6 feet of physical distancing allowed).
- Schools that have not implemented face mask use in classrooms should implement mask use wherever possible, especially given the high rates of community transmission and the State-wide mask mandate currently in effect (see Emergency Order #74 and Emergency Order #81).
- Schools should continue to implement other recommended mitigation measures as outlined in the Department of Education's Back-to-School Guidance.

Because schools provide a structured environment that supports adherence to community mitigation measures, even in the midst of high levels of community transmission, schools have been able to operate safely with minimal risk to other students, staff, and surrounding communities. In fact, CDC recommends that "K-12 schools be the last settings to close after all other mitigation measures have been employed and the first to reopen when they can do so safely."[4]

References:

1. Zimmerman KO, et al. Incidence of secondary transmission of SARS-CoV-2 infections in schools. Pediatrics, Jan 2021. Prepublication available at: https://pediatrics.aappublications.org/content/early/2021/01/06/peds.2020-048090.

2. Brandal LT, et al. Minimal transmission of SARS-CoV-2 from paediatric COVID-19 cases in primary schools, Norway, August to November 2020. Euro Surveill, Jan 2021;26(1). Available online at: https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2020.26.1.2002011?emailalert=true.

3. Falk A, et al. COVID-19 cases and transmission in 17 K-12 schools – Wood County, Wisconsin, August 31 – November 20, 2020. MMWR Morb Mortal Wkly Rep, Jan 2021;70. Available online at: https://www.cdc.gov/mmwr/volumes/70/wr/mm7004e3.htm?s_cid=mm7004e3_w.

4. Leidman E, et al. COVID-19 trends among persons aged 0-24 years – United States, March 1 – December 12, 2020. MMWR Morb Mortal Wkly Rep, Jan 2021;70(3):88-94. Available online at: https://www.cdc.gov/mmwr/volumes/70/wr/mm7003e1.htm?s_cid=mm7003e1_w.