# Community Unit School District 303

## Research Summary on Mitigation Strategies

**by Juanita Gryfinski, RN, MSN, MS, MA, PEL-CSN, NCSN,**
**Dept. Chair Health Services D303**

The guidance recently released by the Centers for Disease Control and Prevention (CDC) emphasizes the need for localities to monitor community transmission, vaccination coverage, screening, testing, and occurrence of outbreaks **to guide decisions on the level of layered prevention strategies in K-12 schools during the coming academic year.** Throughout the past 16 months, District 303 successfully navigated through the pandemic by developing plans to prevent the spread of COVID-19 in our schools and community. Leveraging that success, it is now time to evaluate District 303's COVID-19 prevention protocols/mitigation strategies.

It is important to recall that when we approached the opening of school in August of **2020,** the District 303 leadership team often underscored that many of the mitigation strategies we then asked our students and staff to follow, were in place to protect our **community as a whole.** Those that needed the most protection during the pandemic at that juncture (the elderly and medically fragile in our community) benefited from the interventions schools mandated. Using the principal of universally shared interventions to direct our pandemic response, face masks/coverings were universally used in our schools. By treating COVID-19 as a threat to all (even though the data during the summer of 2020 clearly supported that the risk to children was low and that children were not vectors of COVID-19), we collectively mitigated. Last school year it was well understood that the best way to prevent severe illness and death associated with COVID-19 among those at high risk, was to slow down the spread of cases among the young. During the depths of the pandemic, "individuals were more than just individuals, they were links in the chain of transmission". To protect the vulnerable our strategies dovetailed naturally with the need to mitigate (slow down) spread of the virus among our students and staff by layering prevention strategies.

As we approach the opening of school this August and determine the level of layered prevention strategies District 303 should put in place at this point of time, we do so with the knowledge that **community risk has been significantly reduced since last year**. In light of this **change,** and in keeping with the Illinois State Board of Education's decision to leave mitigation choices to the local school board's control, **we the (leadership team) recommend that District 303 take the position that *masks should be worn inside by students and staff members who are not fully***

***vaccinated even though under the current CDC/IDPH/ISBE guidelines, masking is no longer mandated.*** **Per IDPH guidelines, while riding on a school bus everyone will be required to wear a mask.**

**Supporting Research:**

The reduction in community risk changes the need to enforce uniform mitigation strategies in schools as well as other public settings. One could say we have witnessed a paradigm change in this regard. Vaccines now offer protection from COVID-19 to the elderly and fragile. Protection through preventions or by decreasing the acuity of illness associated with contracting the virus. Vaccine uptake among those 65 and over in Kane County has reached 90.3% as of July 15, 2021. This remarkable public health feat has allowed parents to consider the individual risks/needs of their child when choosing protection from the virus. Vaccines have demonstrated "vigor" against COVID-19 and related variants for those at greatest risk and since eighty percent of COVID-19 deaths have been among those 65 and above, vaccines are on track to eliminate the overwhelming share of American mortality risk associated with COVID-19. Clearly, for those at risk, **vaccines have now become the most important link in the chain of transmission.** In short, vaccines have changed the generalized risk factors in the community, and ushered in the ability for school boards to review their mitigation strategies in order to determine appropriate COVID-19 prevention protocols for their students and staff.

**Transmission of COVID-19 in schools is low**. In the summer of 2020, research regarding the transmission of COVID-19 in schools (Chinese and European) demonstrated low transmission rates among students. This information provided an impetus for schools in Kane County to confidently conduct in-person learning in August of 2020. The trend of low COVID-19 transmission rates was also borne out in District 303 schools during school year 2020-21. In fact, our district did NOT experience any epidemiological spread (transmission) associated with in-person learning (as defined by IDPH) throughout the year. As school year 2021-22 approaches, the leadership team is encouraged by research studies that demonstrate that adult vaccination lowers COVID-19 incidence among children. In some studies, the reduction was as much as by 50 percent. Such findings indicate that staff vaccination in our schools has the potential to create greater protection from both potential school based and household spread. According to researchers, on average, fewer than 0.01 percent of Americans are currently infected with the virus, using this data point researchers indicate that the chance that any close contact will transmit infection to a child is reduced to a scant 0.00007 percent. Furthermore, these researchers conclude, that if the contact is outdoors, the risk appears to be more than 1,000 times lower. The established low **transmission of COVID-19 in schools coupled with evidence that vaccinated**

**adults indirectly lower transmission risk even further, provides reason for school leaders to review** past mitigation strategies, including required masking.

**The risk of COVID-19 to children is low**. The risk of COVID-19 to children was known to be low last summer, however, school leaders justified employing many layers of mitigation strategies in school settings (despite the relative burden) to protect those at high risk if they contracted COVID-19. Data now indicates only 0.1 percent of COVID-19 infections in children result in hospitalizations, and that data point is likely an overestimate given that recent studies suggest a percentage of pediatric COVID-19 admissions were originally misclassified. The risk of a child developing MIS-C, a serious inflammatory condition with known effective treatments, is less than 1 in 1,000. Parents are best positioned to weigh the risks of infection to their child and their family on an individual level by reviewing such data points. It is important to note that other diseases and conditions present greater risks to children than that of COVID-19. Childhood cancers, accidents, birth defects, heart disease and other infectious diseases present higher risks (or severe illness, hospitalization and mortality). For example, past typical flu seasons have claimed more pediatric lives than that of COVID-19, and such information provides yet another data point for parental risk tolerance analysis when determining what masking strategy a parent will have their child follow in school. **The literature is replete with research findings that parents (perhaps in consultation with their primary care provider) can access to determine whether or not to mask their child while in school.**

"Long COVID" in children is rarer than previously thought. Less than 2 percent of children experience any symptoms two months after infection. Multiple research studies have found little evidence of the disease affecting children's hearts or other body systems.

**Risks and benefits**: Like many public health initiatives there are risks and benefits to interventions. Research has recently emerged that demonstrates adverse physiological, psychological and health effects associated with mask use in children. Most noteworthy, a randomized study published in JAMA in June of 2021, indicated face mask use in the children they studied was associated with unsafe CO2 levels *****. Recent research results from the University of Louisville have indicated that mask mandates and mask use were not associated with slower state-level COVID-19 spread during COVID-19 growth surges. Such findings, why subject to debate create the need to further study the usefulness of such mitigation efforts. Awareness of the efficacy debate and potential risks associated with masking children is valuable to parents and primary care providers when considering the risks and benefits related to the use of face coverings for their child moving forward.

Disease surveillance, maintenance of respiratory and hand hygiene as well as the implementation of staff and student COVID-19 surveillance testing onsite will provide

**evidence- based strategies** that District 303 should/will endorse and put in place as they continue to mitigate COVID-19.

**Based on any data changes, the possibility to require students to use masks will exist throughout the school year.**

## Resources used to prepare this information:


Beck, Amy, Gandhi, Monica. Adjudicating Reasons for Hospitalization Shows that Severe Illness from COVID-19 in Children is Rare. *Hospital Pediatrics*. May, 2021 DOI: 10.1542/hpeds.2021-006084

Children and COVID-19: State-Level Data Report. *American Academy of Pediatrics*. July 2021.

Effectiveness of the BNT162b2 Covid-19 Vaccine against the B.1.1.7 and B.1.351 Variants.
*N England J. Med* 2021; 385:187-189
DOI: 10.1056/NEJMc2104974 July 8 2021,

Estimated Influenza Illnesses, Medical visits, Hospitalizations, and Deaths in the United States 2018–2019 Influenza Season. https://www.cdc.gov/flu/about/burden/2018-2019.html.

Experimental Assessment of Carbon Dioxide Content in Inhaled Air With or Without Face Masks in Healthy Children*. JAMA Pediatr.* Published online. June 30.
Illness Duration and Symptom Profile in a Large Cohort of Symptomatic UK School-aged Children Tested for SARS-CoV-2. https://doi.org/10.1101/2021.05.05.21256649
*July 27, 2021 *JAMA Pediatrics* has retracted the study that was quoted in this review of the literature on mask use. According to JAMA, following their original publication, scientific issues were raised regarding the study methodology, including concerns about the applicability of the device used for the assessment of carbon dioxide levels in the study setting. JAMA is a respected journal that publishes original research, reviews, and editorials covering all aspects of biomedicine. As such, this information was originally cited in an effort to present current research findings to our school stakeholders. We acknowledge JAMA's retraction and ask that you be aware of their retraction as you read and consider the information presented.

Gandini S., Rainsio, M., Iannuzzo M. A cross-sectional and prospective cohort study of the role of schools in the SARS-CoV-2 second wave in Italy. *The Lancet.* March 26, 2021

Haigh K.C., Gandhi M., COVID-19 Mitigation with Appropriate Safety Measures in an Essential Workplace: Lessons for Opening Work Settings in the United States During COVID-19. *Open Forum Infectious Diseases*, Volume 8, Issue 4, April 2021,

Hershow R., Wu K., Lewis N., et al. Low SARS-CoV-2 Transmission in Elementary Schools — Salt Lake County, Utah, December 3, 2020–January 31, 2021*. MMWR Morb Mortal Wkly Rep 2021; 70: 442–448*

Negligible Impact of SARS-CoV-2 Variants on $CD4^+$ and $CD8^+$ T cell reactivity in COVID-19 exposed donors and vaccines
Alison Tarke, John Sidney, Nils Methot, Yun Zhang, Jennifer
M. Dan, BenjaminGoodwin, Paul Rubiro, Aaron Sutherland, Ricardo da Silva Antunes, April Frazier, Stephen A. Rawlings, Davey M. Smith, Bjoern Peters, Richard H. Scheuermann, DanielaWeiskopf, Shane Crotty, Alba Grifoni, Alessandro Sette
bioRxiv 2021.02.27.433180; doi: https://doi.org/10.1101/2021.02.27.433180

https://covid.cdc.gov/covid-data-tracker/#county-view

Illness duration and symptom profile in a large cohort of symptomatic UK school-aged children tested for SARS-CoV-2. https://doi.org/10.1101/2021.05.05.21256649

Madewell Z., Yang Y., Ira M., et al. Household Transmission of SARS-CoV-2A Systematic Review and Meta-analysis. *JAMA Netw. Open.* 2020;3(12): e2031756.

Mandrola, J. Foy and Prasad May 14, 2021, Setting the record straight: There is No ‘Covid heart’ *STAT.*

MedRxiv preprint doi: https://doi.org/10.1101/2020.09.04.20188417.

Spitzer M. Masked education? The benefits and burdens of wearing face masks in schools during the current Corona pandemic. *Trends Neurosci. Educ*. 2020; 20: 100138. doi:10.1016/ j.tine.

Wallace, David. The Kids Are Alright. Why Now is the Time to Rethink Covid Safety Protocols for Children. New Yorker Magazine. July 12, 2021.

Weber D., Babcock H., Hayden M.,, et al. Universal Pandemic Precautions - An Idea Ripe for the Times. *Infect Control Hosp Epidemiol*. 2020; 41(11):1321-1322. doi:10.1017/ice. 2020.327