Dear D11 School Board Member and D11 Administrative Staff, Sept. 17, 2021

First of all, I want to thank you for a wonderful year, and for the flexibility you've offered on masks during our summer. I am a resident, substitute teacher, taxpayer, Chairman of the MLO committee and a grand-father of past and present D11 students.

With that in mind, as schools are making decisions around what to do with masks in the fall, I'd like to share my preferences. This has become such a polarizing topic that I think many people who might not want to have their kids in masks will be shy about standing up. So, I'm going to stand up and share my thoughts.

As you are no doubt aware, D11 has mandated masks until Oct 7. There is a world of difference between a mandate and a strong recommendation. The CDC strongly recommends that people not eat raw fish or under-cooked meat, and yet many people choose to do exactly that. My hope is that D11 will embrace the flexibility offered in this "strong recommendation" and not mandate masks—or distancing—for students in any setting.

I believe the data is firmly on the side of this position. The policy response to COVID—particularly as applied to children—has been wickedly inept. We now have nearly a year-and-a-half's worth of data. Not to use that data to craft better policies and create better outcomes for our children would be simply wicked.

That data tells us several key things that argue strongly against masking children. To wit (all of these claims are supported with data and links below):

- **Children are at extremely low risk from death**, hospitalization, or other adverse events due to COVID-19. They face a 3-4x higher mortality risk from flu vs. COVID and a 10x risk of suicide.
- **Even with Delta,** children are at extremely low risk, with some data suggesting that pediatric hospitalization rates for Delta are less than half what they were for earlier variants.
- **Children are NOT super-spreaders.** They are not the reservoir of COVID-19 that is "prolonging the pandemic." Multiple contact tracing studies have shown that the R0 for children is actually BELOW one, meaning it is mathematically impossible for them to drive this epidemic. They are epidemiological dead ends.
- **Mask mandates–especially in schools–do not reduce school or community transmission.**
- **Mask are ineffective as protection for Covid-19.** Simple mathematics regarding particle size is irrefutable evidence that masks cannot perform any significant filtering of the Covid-19 virus.
- **Masks on Children harbor the presence of harmful bacteria and disease.** What is being deposited, stored and growing on the mask of our children?
- **Masks on Children are harmful to Cognitive Language and Social Development. A** mother's understanding to standard child development studies shows that a large portion of human communication and social interaction is dependent on full facial recognition. Masks block human emotion and social learning reducing individual development.

With these facts in hand, it becomes clear that if we are to continue masking children for COVID with vaccines universally available to the at-risk, there will be no logical point at which we can un-mask them. Even with widespread vaccination of children for COVID-19, using the arguments currently in vogue, the greater lethality of flu would counsel permanent masking to limit its spread (never mind CDC analyses showing that doing so does not limit its transmission). If we do not take this off-ramp for masking, there will be no other.

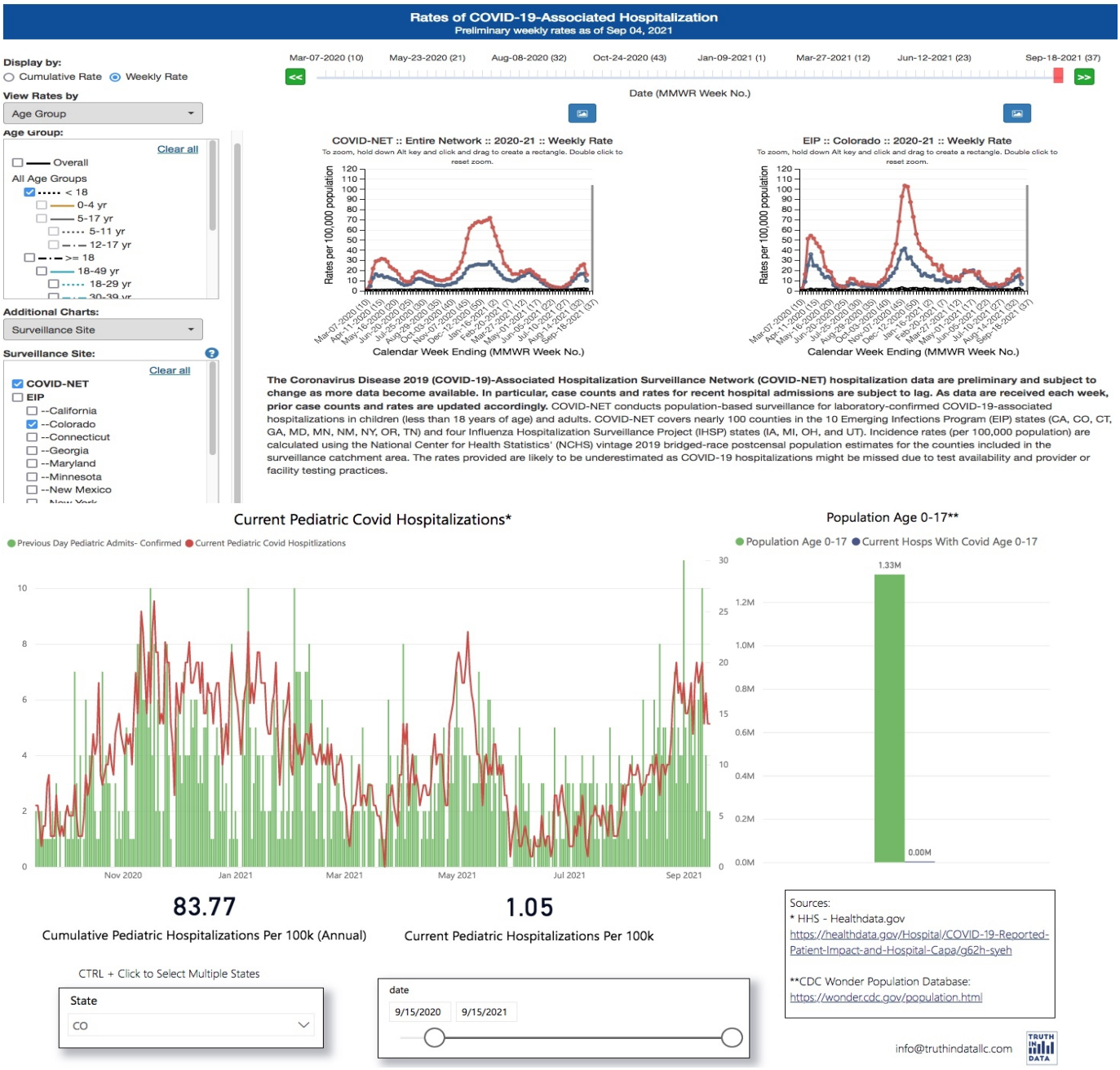
Supporting data:

Children are at extremely low risk from COVID:

As of now, there are 332 deaths of children with COVID in the U.S. This compares to about 450/year in a normal flu season—and remember, these 332 deaths occurred during TWO COVID seasons. Beyond this, the CDC has noted that 35% of these deaths could not possibly have had anything to do with COVID (e.g., they were car accidents, suicides, etc., etc.). Thus, the actual number is not possibly above 219. Of these, virtually all were extremely ill. Researchers from Johns Hopkins recently found a mortality rate of zero for children who were not extremely ill with prior conditions, like leukemia. Nor does this reflect lower spread due to our world-breaking interventions. The CDC estimates that through May, 2021, there were 27 million COVID infections in children (23 million symptomatic). Using the number of deaths where COVID might actually have been causal, this yields a maximum infection fatality rate (IFR) of 0.001% for symptomatic infection in children. This compares to around 12.5 million symptomatic flu infections in the same age group in any given year, which, with an average of 450 deaths, yields an IFR of 0.003%. Thus COVID is significantly less dangerous for children than flu—3-4x less deadly depending on the year—even without a vaccine. The risk of hospitalization is also miniscule. Again, on 23 million symptomatic infections, the CDC estimates there to have been 209,000 pediatric hospitalizations—a rate of 0.9%. The rate for flu is ~0.4%, approximately half that of COVID. However, here, too, there are caveats. A recent study found that 45% of pediatric COVID hospitalizations were in no way related to COVID. This would bring pediatric hospitalization rates for COVID in line with those for flu. There is, of course, the question of "Long COVID" in kids. Once again, there is much more heat than light here. In a recent study, researchers found no difference in long-COVID symptoms in children who had antibodies for COVID, vs. those who did not—i.e. those who were never infected. This study found the same. From all of this data, it should be clear that, at a minimum, if we are going to mask children to prevent COVID, logically we must mask them for flu as well. Is that what we want? What are the trade-offs? When it comes to children, their risk of death from suicide (under normal circumstances) is nearly 10-fold higher than their risk of death from COVID. I did not choose this statistic at random—I believe this is a potential trade-off to masks that is not being considered. The sense of isolation and alienation created by masks seems likely to aggravate this a much greater serious risk. If the risk of suicide were increased by masking and distancing by even 1%, it would need to be offset by a reduction in pediatric COVID deaths of at least 10%. Given the very fragile nature of the children who have died from COVID, that is extremely unlikely. Unfortunately, no concern has been given to the potential downsides of masks by public health officials, especially when it comes to children.

Delta has NOT changed the game. Children are STILL at extremely low risk from hospitalization or death from COVID.

The same applies for Delta, which, while more transmissible, appears to be less deadly, not more, for children. In the UK, where Delta has come and gone, hospitalization rates for children with Delta were nearly 50% lower. Data from the CDC shows that pediatric hospitalizations are at nearly identical levels as last year at this time, and significantly lower than winter peaks. The most recent data from HHS shows just 12 pediatric hospitalizations in Colorado—and a winter peak of just 25, out of a population of 1.33 million children in the state.



Children are not Super-Spreaders—Even Unvaccinated

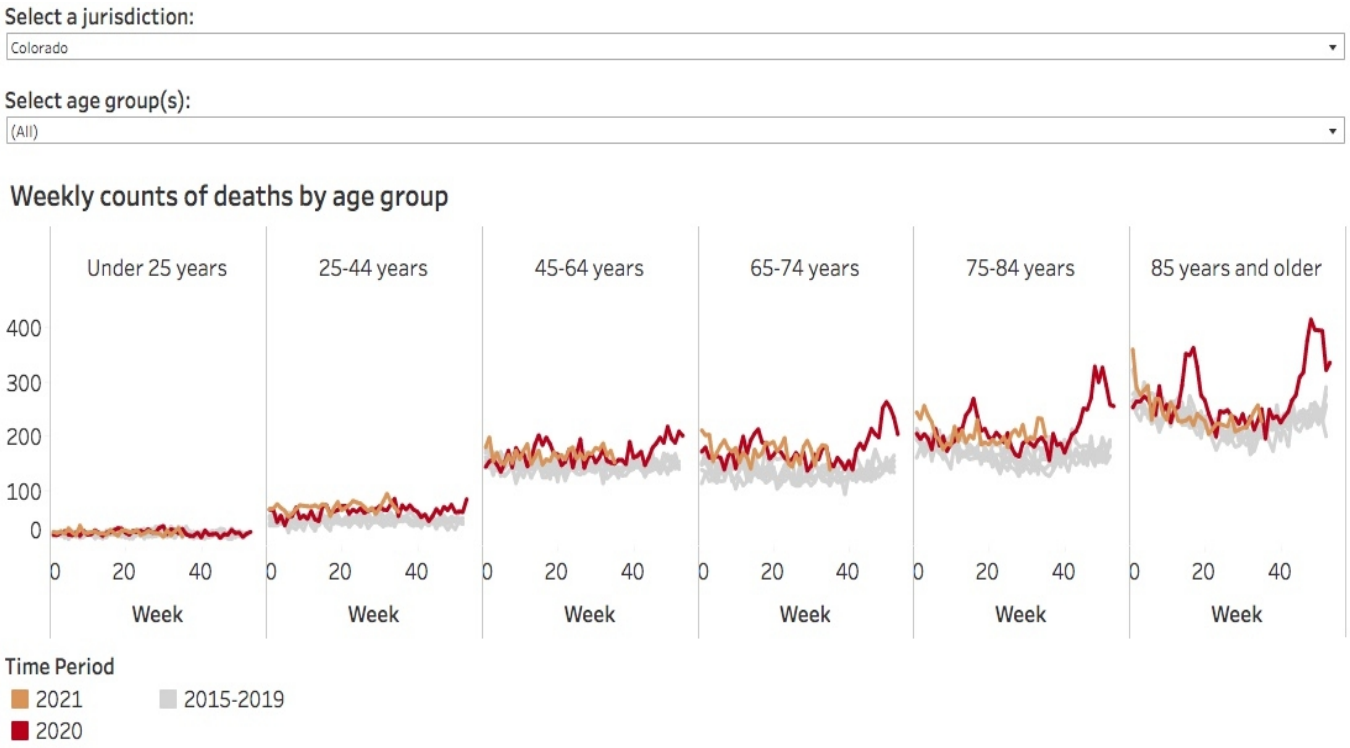
The original rationale for masking kids was that they were super-spreaders—that while they wouldn't get sick, they might kill grandma. In fact, they are not super-spreaders. This study from the CDC found that each student infection generated an additional 0.77 infections (27 student infections yielded 21 additional infections clearly related to a student), while each teacher generated an additional 2.6 infections—3.4 times the rate of the children. This is important because it shows that children are effectively dead ends when it comes to transmission—even unvaccinated. 0.77 is effectively the R0 for children, meaning that they CANNOT be responsible for driving community transmission. A similar—but much larger—study of 400,000 children in Germany found that children generated just 0.25 cases for each infection, while teachers generated 1.1—4-fold more. Interestingly, the children were not masked in this study except at the end, when cases rose significantly. Children's lower transmission rates appear to protect not just them, but those around them. In Florida, where 98% of the school year was offered to students full-time and in-

person, and where 20 districts were mask-optional for the full year, the case rate for children was 0.088%, per week—i.e. less than 1 child in 1000 contracted COVID/week. For Floridians not associated with schools, the weekly case rate was 2.4 times that, 0.214% ((1.66m infections – (these infections))/18.3 M non-teacher-staff, non-student population)/37weeks). To underscore the "protective effect" provided by these kids' lower transmission rates, teachers and staff in Florida schools contracted COVID at less than half the rate of other Floridians—0.11%/week (13,991 infection/~329K teachers and staff/37 weeks). Furthermore, researchers analyzing Florida, Massachusetts, and New York schools found that there was no association between school mask mandates and case rates either in the school, or the community.

Mask Mandates—especially in schools—do not impact school or community transmission

In the study noted above, the authors state, "We do not see a correlation between mask mandates and COVID-19 rates among students." A longitudinal study consistently shows no impact of mask mandates on either in-school transmission or community transmission. Other research has shown that, more broadly, there is no impact from masking on case transmission rates.

With all of this, the only possible remaining rationale for masking children is to protect adults who chose not to be vaccinated. Given that vaccines are available to all adults who want them and that children never saw any increased mortality—including extremely fragile children—this rationale seems specious. Indeed, in Colorado, there has been no excess death in any age group under 65 since October of 2020. For any people who may still be at-risk in these older groups, even after widespread vaccine availability, it seems far more prudent to develop measures that allow them to protect themselves (e.g. N-95s or greater), rather than continue to sacrifice the well-being of our children. While there is no excess mortality among children in any state, if there are parents who feel their children are at greater risk, developing tailored mitigation strategies to support those families would be far more prudent—particularly given that mask mandates in schools have no impact on in-school transmission. Universally masking in schools, while very visible and socially invasive, sadly appears to do nothing to protect the vulnerable in those populations.



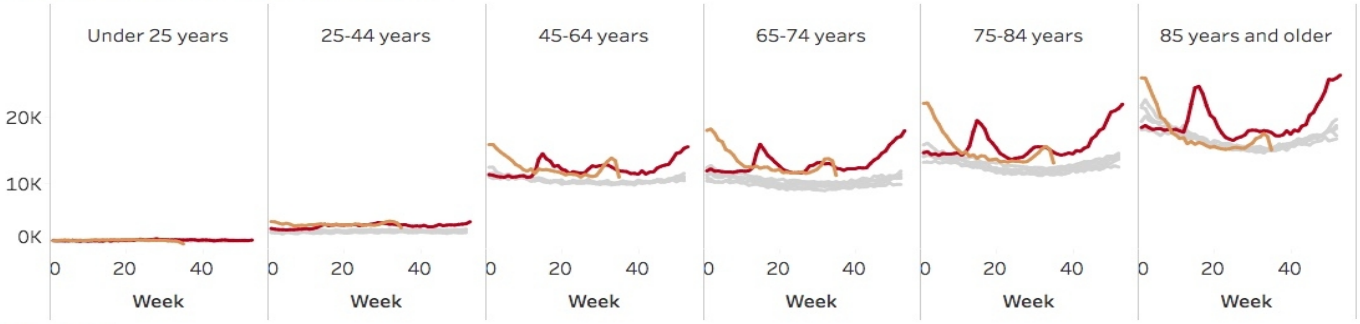
Select a jurisdiction:

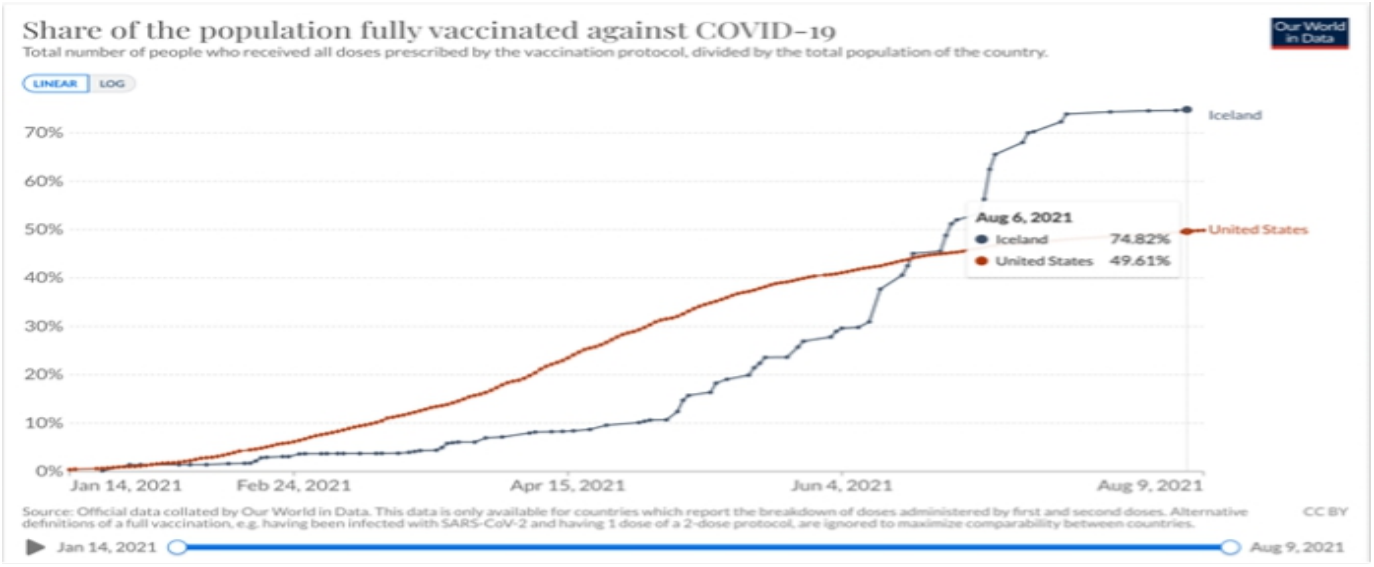
United States

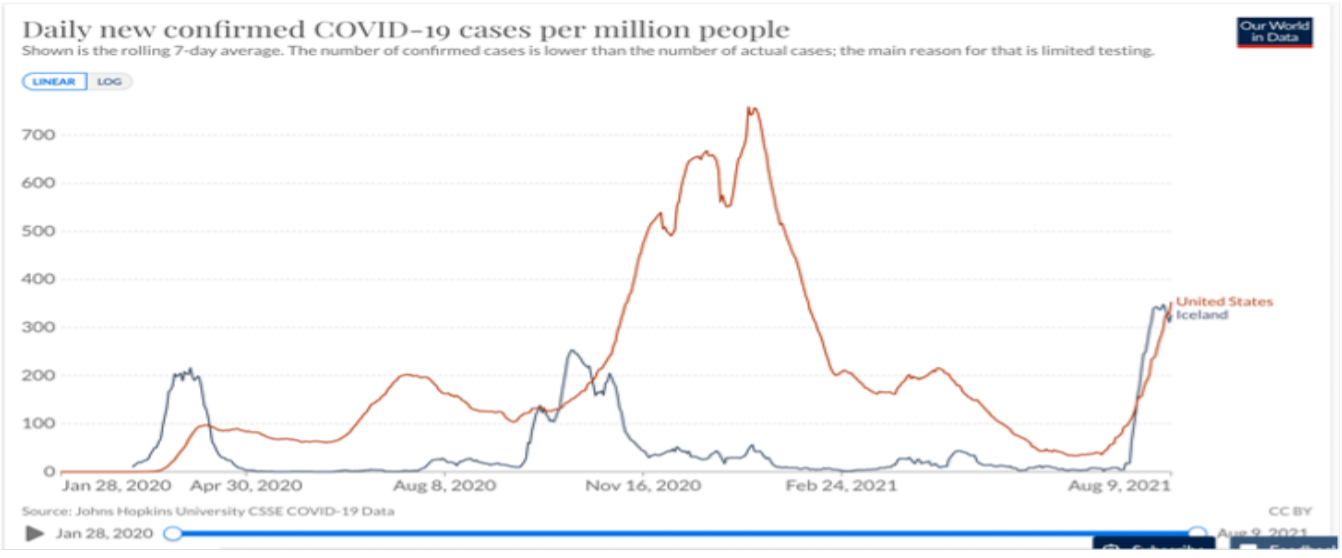
Select age group(s):

(All)

Weekly counts of deaths by age group







Mask are ineffective as protection for Covid-19.

Covid-19 is a aerosolized pathogen with a virus particle that varies in size from 60-140 nm. That equates to .06-.14 microns or 60-140 nanometers. This is similar in particle size to cigarette smoke. There has yet to be a single study showing masks are efficacious in slowing the spread of Covid. The CDC itself has admitted as much: "CDC is not aware of any randomized controlled trials that show that masks or double masks or cloth face coverings are effective against COVID-19."

Why would they have to admit that? It is simple math.

- A N-95 mask is capable of filtering 95% of particles =<.3 microns. More than twice the size of Covid-19.
- Blue surgical mask have material gaps equal to 3-10 Covid-19 virus particles.
- Standard paper disposable masks have material gaps equal to 200-1000 Covid-19 virus particles.
- A standard cloth masks have material gaps equal to 200- over 1000 Covid-19 virus particles.

The logic behind the efficacy of masks is like putting up a chain-link fence to stop mosquitos. Using standard math to illustrate how ineffective masks are to stop a 120 nanometer particle let us make Covid-19 the size of a dime. A surgical mask then has holes 2.1-7 inches in diameter, a paper mask has holes 11.7-58.3 feet in diameter and a cloth mask could have holes over 100 feet in diameter. We are to believe this will stop a dime? One could say that is ridiculous, but mathematics and particle size are true science NOT political science.

Masks on Children are harmful to Cognitive Language and Social Development.

Masks inhibit communication and emotional expression. All of this begs the question, what is the risk/benefit analysis of continued universal masking in the classroom and are we willing to continue to mandate such? Consider this, Mask mandates may affect a child's emotional, intellectual development.

Pediatricians report masking & forced social isolation is retarding children's social development. "We've seen some language delays and more social anxiety. The inability of a child to leave their parent and go play with other children," System Chair of Pediatrics at Allegheny Health Network, Dr. Joseph Aracri
System Chair of Pediatrics at Allegheny Health Network, Dr. Joseph Aracri.

Another study, this one from the Warren Alpert Medical School at Brown University, found that masks are impairing early childhood development:

- "Leveraging a large on-going longitudinal study of child neurodevelopment, we examined general childhood cognitive scores in 2020 and 2021 vs. the preceding decade, 2011-2019. We find that children born during the pandemic have significantly reduced verbal, motor, and overall cognitive performance compared to children born pre-pandemic. *Moreover, we find that males and children in lower socioeconomic families have been most affected*."

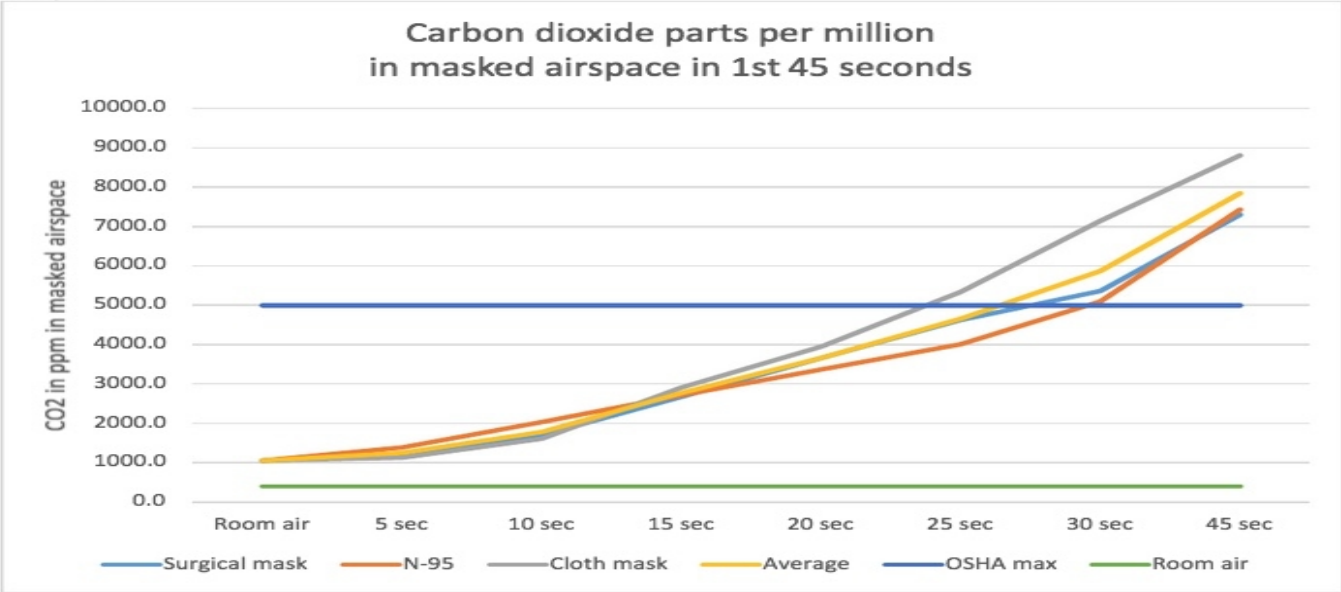
An expert in childhood trauma at Columbia University recently wrote that mask mandates are inflicting slow-motion trauma upon children that can take years to fully manifest:

- More studies should be conducted on just how traumas from Covid-19 restrictions in schools are associated with the long-term health and well-being of American children, but research on Post-Traumatic Stress Syndrome has illuminated that "stress and fear, in response to actual or possible threat, enhances the possibility of forming trauma-related memories." Every year of a child's early life lays the foundation for their adulthood and insecure foundations do, in fact, crumble. According to Maslow's Hierarchy of Needs, children without assurance of their personal security (e.g. social anxiety from masks and social distancing) are often incapable of making healthy social connections and may have difficulty building intimate relationships in their lives. Neurological research demonstrates that kids who experience this kind of fear and trauma at a young age undergo structural and functional restructuring of their brain's prefrontal cortex, resulting in emotional and cognitive processing problems. *This trauma is especially concerning for children growing up in poverty who often have the compounding effect of other trauma at home or in their community*.

Masks on Children harbor the presence of harmful bacteria and disease.

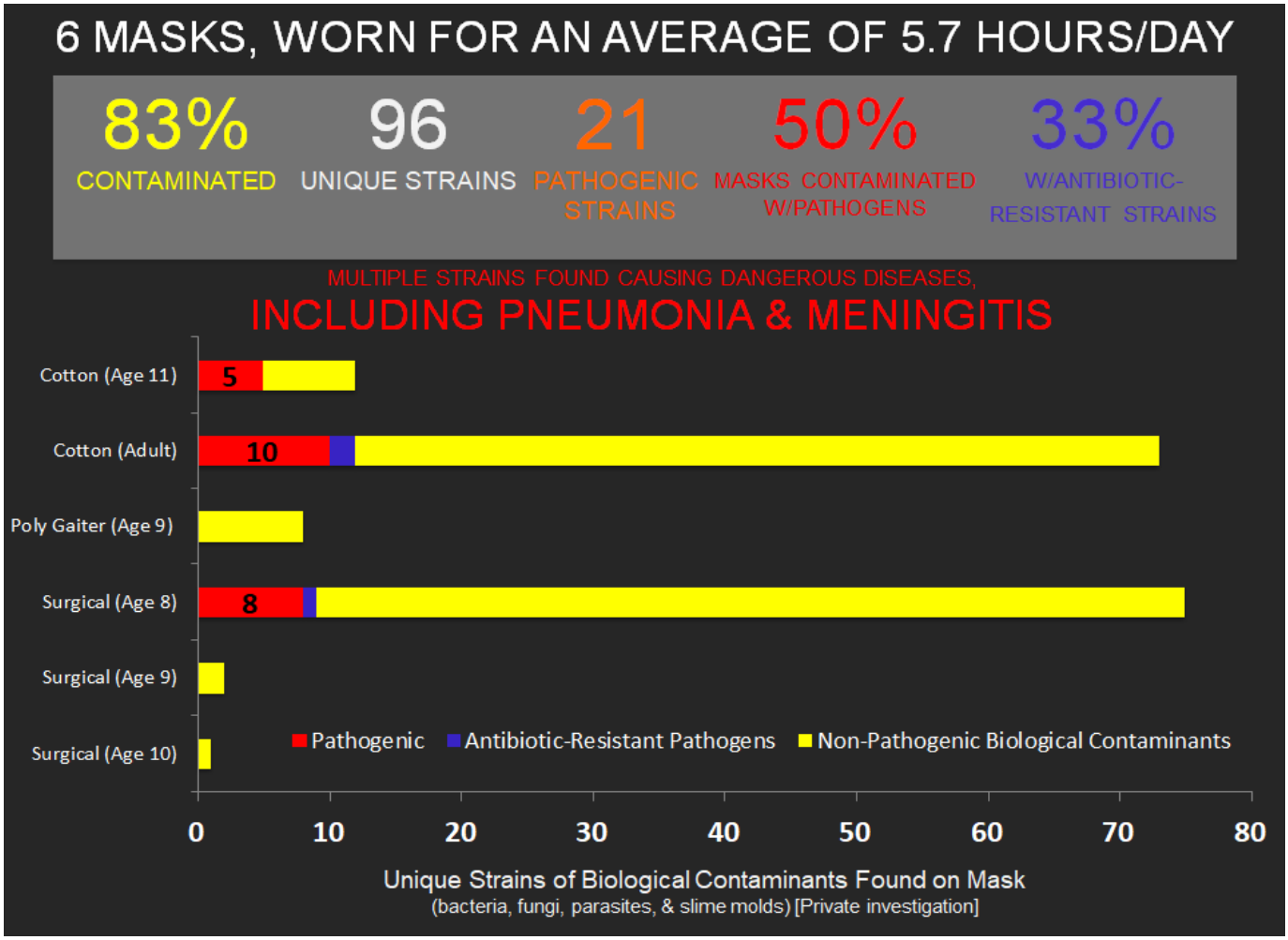
Masked children have all experienced brain fog, fatigue, headache and irritability this year which they, and I, also attribute to prolonged mask wearing. I am sure that this experience is not unique to them and is supported by the findings of a German survey of parents which found that children wearing masks for prolonged periods experience irritability, headaches, difficulty concentrating, malaise, impaired learning, and drowsiness. (https://www.researchsquare.com/article/rs-124394/v2) The observations of these parents are validated by the findings of recent studies showing that cloth and surgical masks cause higher carbon dioxide concentrations in the breathing space which causes hypercapnia leading to anxiety, sluggishness, headache and fatigue. (https://aaqr.org/articles/aaqr-20-07-covid-0403, https://www.sciencedirect.com/science/article/pii/S105381192100029X) Other research suggests the potential for more severe side effects including fungal skin and mouth infections (https://www.worldhealth.net/news/masks-may-be-causing-candida-overgrowth-your-mouth/), damage to multiple organ systems (https://pdmj.org/papers/masks_false_safety_and_real_dangers_part3/), and even cancers (https://www.globalresearch.ca/long-term-mask-use-may-contribute-advanced-stage-lung-cancer-study-finds/5736339).

Graph 1



Florida scientists tested masks worn by school children and found they had accumulated a number of dangerous contaminants. “Although the test is capable of detecting viruses, including SARS-CoV-2, only one virus was found on one mask (alcelaphine herpesvirus),” the science site, Rational Ground, reported. The contaminants discovered on the children’s masks included:

- Streptococcus pneumoniae (pneumonia)
- Mycobacterium tuberculosis (tuberculosis)
- Neisseria meningitidis (meningitis, sepsis)
- Acanthamoeba polyphaga (keratitis and granulomatous amebic encephalitis)
- Acinetobacter baumanni (pneumonia, blood stream infections, meningitis, UTIs—resistant to antibiotics)
- Escherichia coli (food poisoning)
- Borrelia burgdorferi (causes Lyme disease)
- Corynebacterium diphtheriae (diphtheria)
- Legionella pneumophila (Legionnaires’ disease)
- Staphylococcus pyogenes serotype M3 (severe infections — high morbidity rates)
- Staphylococcus aureus (meningitis, sepsis)



”Half of the masks were contaminated with one or more strains of pneumonia-causing bacteria,” journalist Jennifer Cabrera reported. “One-third were contaminated with one or more strains of meningitis-causing bacteria. One-third were contaminated with dangerous, antibiotic-resistant bacterial pathogens. In addition, less dangerous pathogens were identified, including pathogens that can cause fever, ulcers, acne, yeast infections, strep throat, periodontal disease, Rocky Mountain Spotted Fever, and more.”

Final Remarks.

The purpose is of this letter was to point out that children are not a major source of COVD transmission, and current “successes” in keeping COVID at bay in schools has little to do with masking. Many continue to take a “what’s the harm” approach to masking. There is harm. First, those states with the strictest mask mandates also happen to be the states with the fewest children learning in-person. The myth being perpetuated by the CDC that they know how to control COVID, has robbed roughly half of the children in the U.S. of a year’s education. We have been lucky, our children are in school, in-person. But still, there is harm for them, too. According to a C. S. Mott Children’s Hospital National Poll on mental health, 3 out of 4 parents say Covid-19 has had a negative impact on their children with increases in anxiety, depression, sleep issues and aggressive behavior (https://mottpoll.org/reports/how-pandemic-has-impacted-teen-mental-health). They have not had the socialization which is one of the most important parts of their development during this period stunted, it appears, for no positive end.

For some, masks appear to “work” to stop transmission from children. Increasingly, it seems likely this is because children are not major sources of transmission—not because the children are wearing masks. Given the way children wear masks—not fit-tested N95, and constantly up-and-down on their faces—it is nearly impossible to think that the reason that schools have not been major sources of transmission is due to masks. Rather, it seems far more likely that children are not major sources of transmission, and that teachers have been protected, not by they or their children being masked, but by the strong immune systems they have developed thanks to extended and repeated exposure to children and the germs that come along with them.

Finally, as you make your decisions, I hope that you will bear in mind the seasonal nature of this disease if you elect to make masks optional now; otherwise, I believe you will be pressured to re-mask in the future. Even with extremely widespread vaccination, the seasonal patterns appear to persist (peaks in southern U.S. states were off by only 1 week from last year’s). In Iceland, where 75% of the population—i.e., all of the adult population—is completely vaccinated, the case rate is identical to ours in the U.S. Again, this is not because the epidemic is being driven by unvaccinated children—mathematically, it can’t be. This is because the vaccines, while potentially effective at reducing severe illness and death, appear to be far less effective at limiting infection and transmission. Thus, should you choose to make masks a recommendation, rather than a requirement, I hope you will think about what course of action you will take when our inevitable winter flu season surge arrives. I hope you will elect to keep masks optional at that time, too, given their lack of impact on in-school transmission and the efficacy of the vaccines and natural immunity in preventing serious disease in the at-risk population.

Thank you for taking the time to read this. I realize that this is a very fraught time, and I appreciate how challenging your position is. I hope that hearing as many perspectives as possible will help you in your decision-making process.

Respectfully Submitted,

Kenneth Davis (This letter is a compilation of material copied from the internet. I am not it's sole author)