

Children, COVID, and the urgency of normal

An advocacy toolkit for parents, students, mentors, teachers, and administrators.

January 24th, 2022

“18 months ago it was irresponsible and wrong to say:

- Covid is similar to the flu
- Many people hospitalized or dying just have positive tests, are not sick from Covid
- It’s most important to protect the vulnerable

Omicron is different. Now, that's basically correct.

Covid is adapting to us, we need to adapt.”

-Former CDC Director Tom Frieden

January 7, 2022



About the authors



Dr. Scott Balsitis started his career in virology as an Emerging Infectious Diseases Fellow at the CDC studying pandemic preparedness. He earned his PhD in Virology at the University of Wisconsin-Madison and completed a Fellowship at the University of California, Berkeley. He has 22 years of experience in virology research, including on vaccines and therapeutics against HIV, Hepatitis B, RSV, Influenza, COVID-19, and other viruses.



Dr. Monica Gandhi is an infectious disease physician, a professor of medicine at the University of California, San Francisco, and the director of the U.C.S.F. Center for AIDS Research. Her articles on COVID immunology and COVID policy have been featured in *The New York Times*, *The Wall Street Journal*, *The Washington Post*, *The Atlantic*, *Newsweek*, *Time*, and numerous other publications.



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Dr. Lucy McBride is a Harvard- and Johns Hopkins-educated internal medicine physician, mental health advocate, and author of a popular COVID-19 newsletter. She has written and spoken extensively about the inseparability of mental and physical health during the pandemic, has articles featured in *The Washington Post* and *USA Today*, and is a regular contributor to *The Atlantic*.



Dr. Tracy Beth Hoeg is a PM&R physician affiliated with the University of California-Davis, and an epidemiologist studying COVID transmission in schools. She was senior author on one of the earliest studies on COVID in schools, recently testified before Congress on the impacts of COVID and COVID policies on children, and is currently leading a study on the effectiveness of school COVID mitigation policies.



Dr. Kwadwo Kyeremanteng is the department head of critical care at The Ottawa Hospital. He dedicates his time to care for the sickest of the sick patients in the intensive care unit (ICU). During the COVID-19 pandemic Dr. Kyeremanteng created ‘Solving Wellness,’ a virtual health & wellness platform for health care professionals. ‘Solving Wellness’ has been helping address health care burnout and providing health, fitness and self care for its members.

About the authors: Pediatrics



Dr. Jeff Vergales is a pediatrician and pediatric cardiologist at the University of Virginia. His national background in risk management in children placed him at the forefront of developing policy and leading multiple national and state initiatives in management of summer camps, schools and other child congregate care settings during the COVID-19 pandemic.



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About this toolkit

This toolkit is intended to help everyone who needs to make evidence-based decisions for pre-K and K-12 schools and extracurricular activities. It summarizes the most important data regarding COVID and children of all ages so you can be empowered.

It is intended for parents, students, mentors, teachers, administrators, and everyone invested in taking the best possible care of our children. Please share and discuss within your communities, and use it to help inform and focus discussions with your school.

The discussion is particularly focused toward highly vaccinated communities, because that is where schools are being most impacted by COVID policy changes right now. We highly encourage vaccination.

We urge everyone to have discussions with openness and mutual respect. The job of being a teacher, school administrator, parent, or student has been exceptionally difficult these last two years. Understand that if you're frayed, so is the person you're talking to. Compassion and accurate information will move us forward.

As scientists and physicians, our role is to **inform** you with accurate data, give it **context** you can understand, and provide **guidance** about confusing issues. Impacts from COVID and mental health vary among different communities, schools, families, and individual children. We humbly acknowledge this, and provide these data to support every community in making their **own decisions**.

Children, COVID, and schools

COVID poses very little threat of serious disease for students in highly vaccinated communities.

- COVID is a flu-like risk for unvaccinated children. Extraordinary measures in schools are not justified.
- Vaccinated children have almost no risk of severe disease. Omicron does not change this.
- Teachers remain well protected by vaccination, with boosters important in older age groups.

Protecting the mental, social, and emotional health of students is paramount.

- Children are experiencing unprecedented levels of anxiety, depression, and other mental health impacts.
- Child deaths from suicide vastly outnumber deaths from COVID and are increasing.

Focused protection strategies can protect the vulnerable without harming students' overall wellbeing.

Preserving in-person learning and de-escalating fear are the best responses to Omicron.

- Maintaining in-person learning is critical for protecting our students.
- Escalating COVID rules are harmful. Normalize the daily school experience as much as possible.

To protect our children, an urgent return to fully normal schooling is needed.

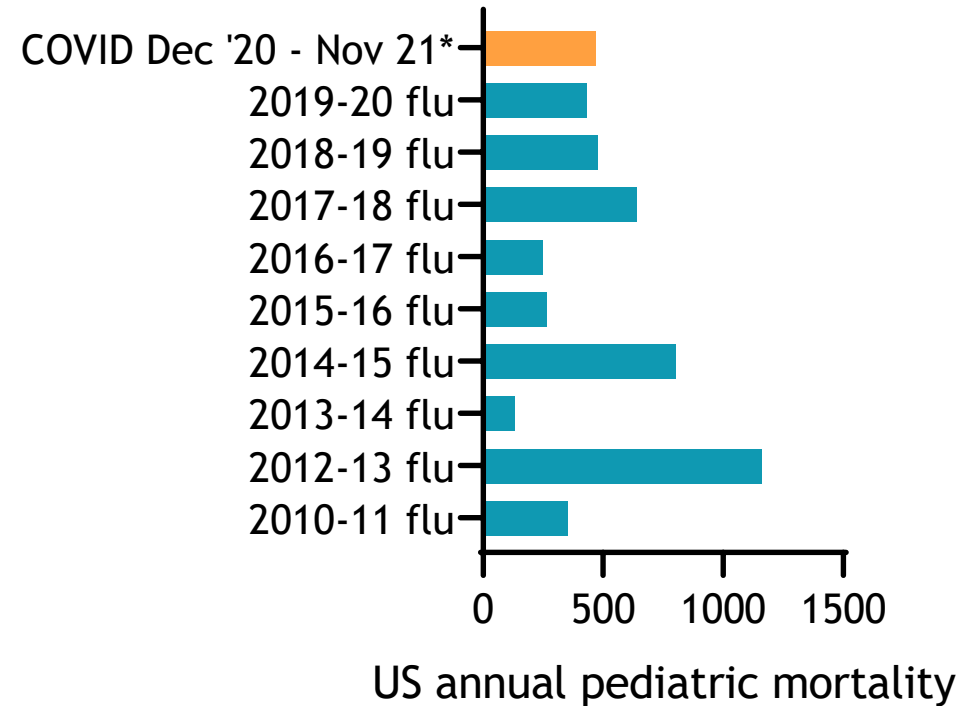
COVID is a flu-like risk to unvaccinated children

CDC data show that annual pediatric mortality from COVID is similar to that of the flu in unvaccinated children^{1,2}

- Summary of CDC data on 0-17 year olds:

Long COVID is not a major risk to children

- Studies consistently find that post-infection symptoms are similar in children who had COVID and children who had other, non-COVID infections.³



*Dec 2020- Nov 21 was the worst 12 months for pediatric COVID deaths in the United States.

¹https://www.cdc.gov/nchs/nvss/vsrr/covid_weekly/index.htm

²<https://www.cdc.gov/flu/about/burden>

³<https://doi.org/10.1016/j.jinf.2021.11.011>

COVID risk to vaccinated healthy children is extremely low

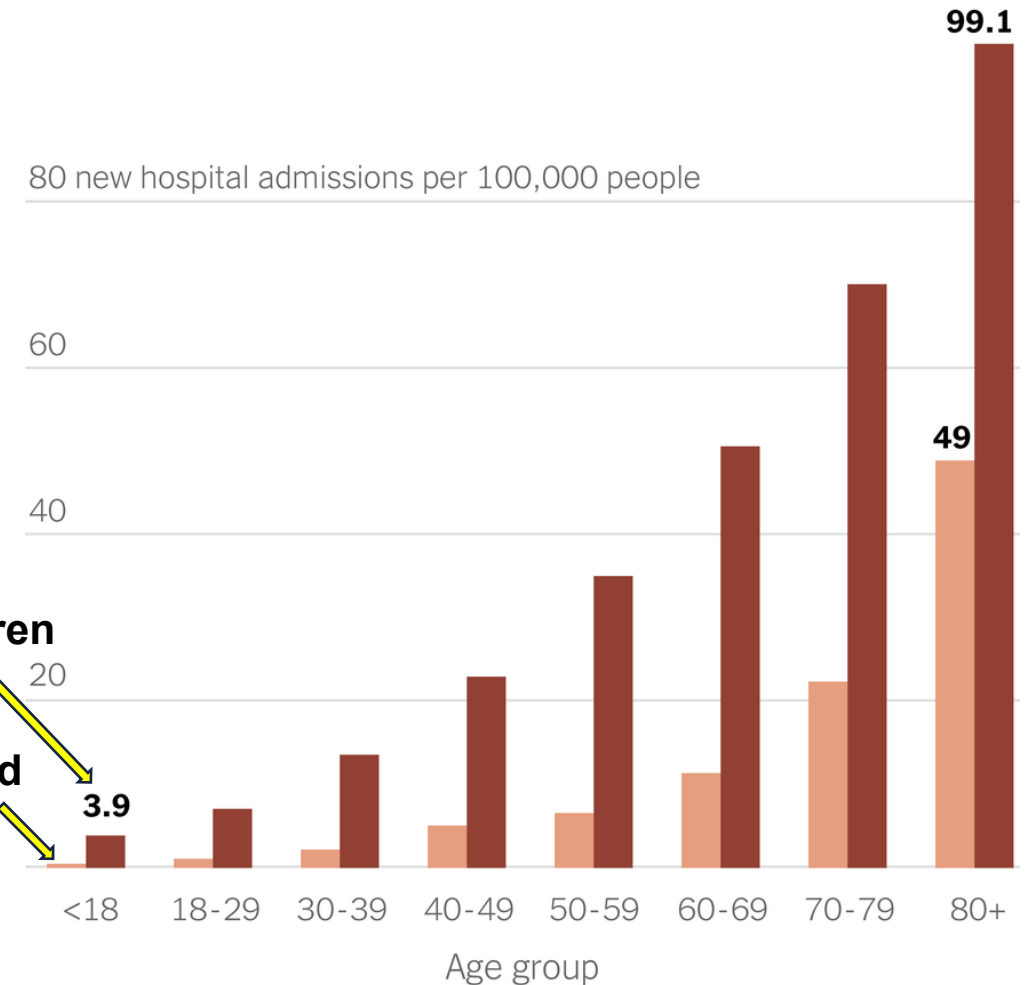
With severe disease risk from COVID already very low for healthy children, vaccines drive the risk to nearly zero.⁴

- Data from the Delta surge shows risk by age and vaccination status.
- Chart shows data from 930,000 total cases, including 411,000 cases in children.
- In vaccinated children, there were zero deaths and almost no hospitalizations.

Covid hospital admission rates in England⁵

Totals between Sept. 6 and Oct. 3, 2021

■ Fully vaccinated ■ Not fully vaccinated



Flu-like risk level
in unvaccinated children

Vaccinated
children

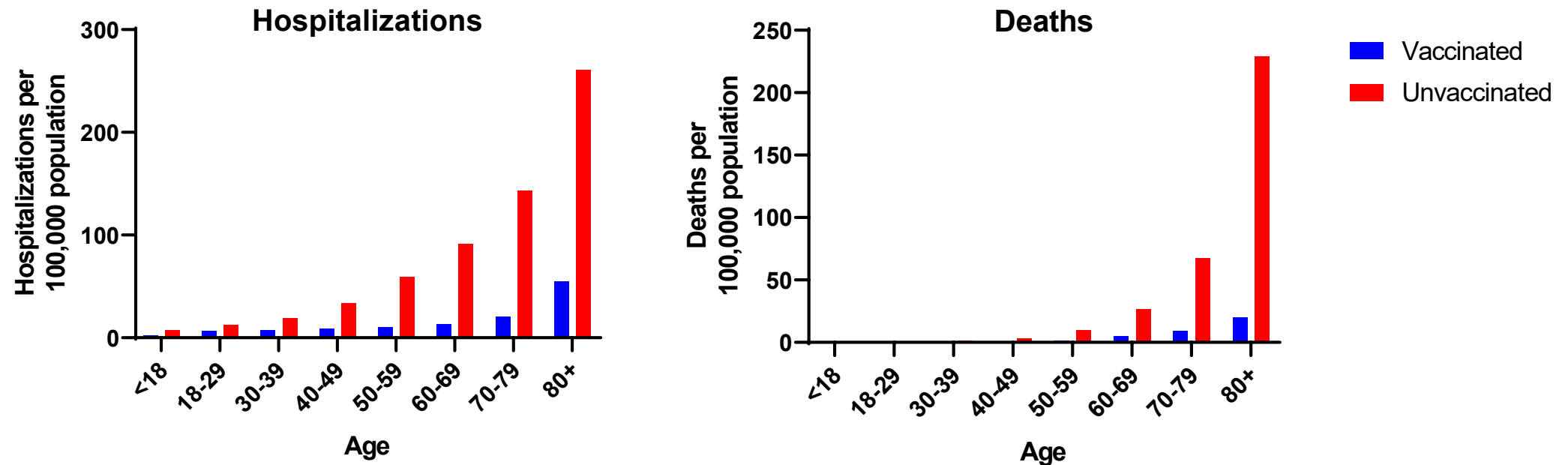
⁴https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1029606/Vaccine-surveillance-report-week-43.pdf

⁵<https://www.nytimes.com/2021/10/12/briefing/covid-age-risk-infection-vaccine.html>

Vaccines remain highly effective against severe disease with Omicron

With Omicron, vaccines have lost most of their effectiveness against mild disease. Expect many cases. Efficacy vs. severe disease remains high, and Omicron is less pathogenic.⁶ Cases will be overwhelmingly mild.

The UK reported data by age and vaccination status in December, during massive Omicron spread:⁷



In vaccinated people under age 60, Omicron deaths are extremely rare or absent. Note that no UK children are boosted. The protection shown here is achieved with two doses.

⁶https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1044481/Technical-Briefing-31-Dec-2021-Omicron_severity_update.pdf

⁷https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1045329/Vaccine_surveillance_report_week_1_2022.pdf

Teachers, staff, and family members are well-protected by vaccination, with a booster dose important for older age groups

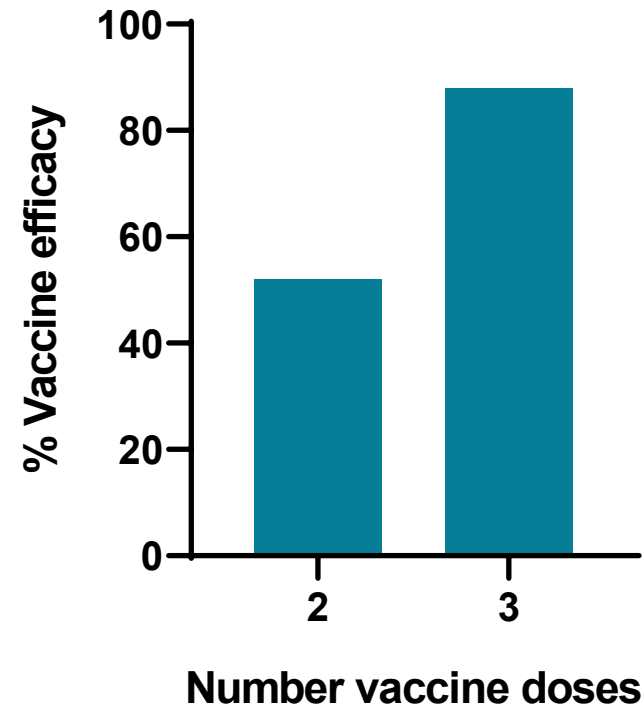
In the previous slide, we see some risk remaining in older age groups, where there is a substantial decline in 2-dose vaccine efficacy against severe Omicron.

In adults over age 65, a booster dose restores protection against hospitalization to pre-Omicron levels (90%).^{8,9}

The enhanced protection appears durable, remaining at 90% for at least 10 weeks, the longest monitoring to date.⁸

The UK has decided not to recommend additional boosters. Three doses does the job.

Vaccine effectiveness against hospitalization in people over age 65



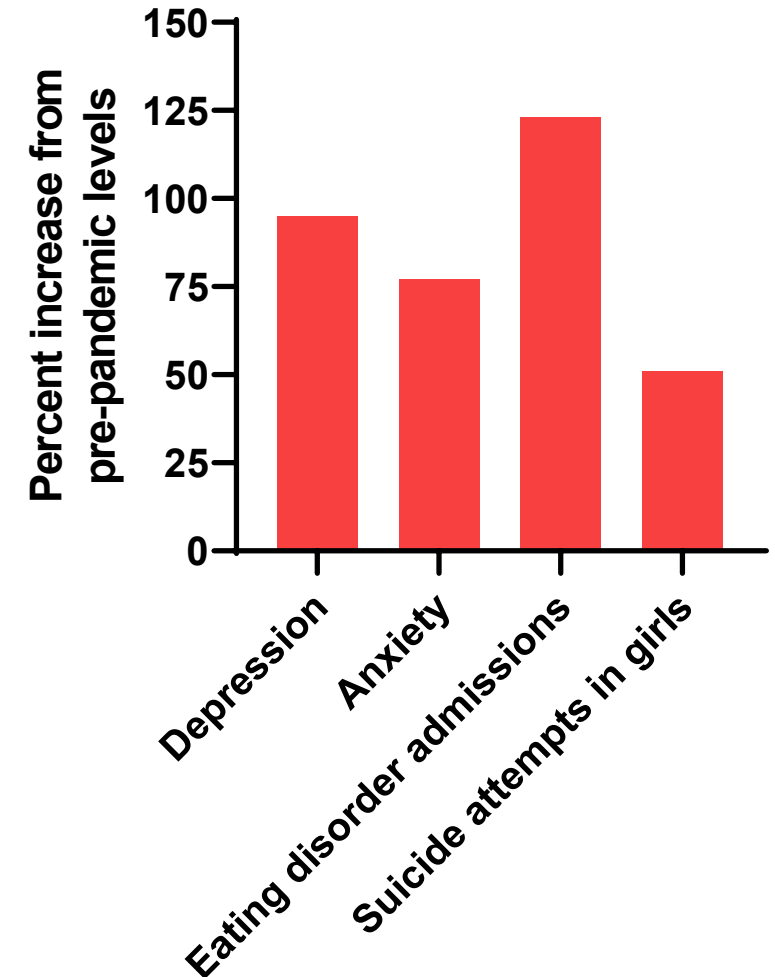
⁸<https://www.gov.uk/government/news/boosters-continue-to-provide-high-levels-of-protection-against-severe-disease-from-omicron-in-older-adults>

⁹<https://www.cdc.gov/mmwr/volumes/71/wr/pdfs/mm7104e3-H.pdf>

Protecting the mental, social, and emotional health of students should be our top priority

Indicators of student mental health distress are at all-time highs. Policies to improve and protect student mental health are urgently needed.

- Depressive and anxiety symptoms **doubled** during the pandemic.¹⁰
- **25%** of youth are experiencing depressive symptoms and **20%** of youth are experiencing anxiety symptoms.¹⁰
- A study of eating disorder hospitalizations found a **120% increase**.¹¹
- There were approximately **2400** child suicides in the US in 2020. Children were the only age group to show an increase in suicides from 2019-2020.¹²
- In early 2021, emergency department visits for suspected suicide attempts in the US increased **51%** in adolescent girls.¹³



¹⁰<https://www.hhs.gov/sites/default/files/surgeon-general-youth-mental-health-advisory.pdf>

¹¹<https://publications.aap.org/pediatrics/article/148/4/e2021052201/179731/Medical-Admissions-Among-Adolescents-With-Eating>

¹²<https://www.cdc.gov/nchs/data/vsrr/VSRR016.pdf>

¹³<https://www.cdc.gov/mmwr/volumes/70/wr/mm7024e1.htm>

School closures are harmful

“The toll of school closures and social isolation on children’s mental health cannot be overstated and will require both immediate- and long-term investigation and action to fully assess and address the impact.”¹⁴

-Editorial from *Journal of the American Medical Association Pediatrics*, January 18, 2022

School closures were associated with:

- Negative mental health impacts for **both parents and students**¹⁵
- Considerable impacts across emotional, behavioural and restlessness/inattention problems¹⁶
- Marked rises in screen-time and social media use and reductions in physical activity¹⁶
- Increased obesity¹⁷
- Learning loss¹⁸

¹⁴<https://jamanetwork.com/journals/jamapediatrics/fullarticle/2788076>

¹⁵<https://www.cdc.gov/mmwr/volumes/70/wr/pdfs/mm7011a1-H.pdf>

¹⁶<https://jamanetwork.com/journals/jamapediatrics/fullarticle/2788069>

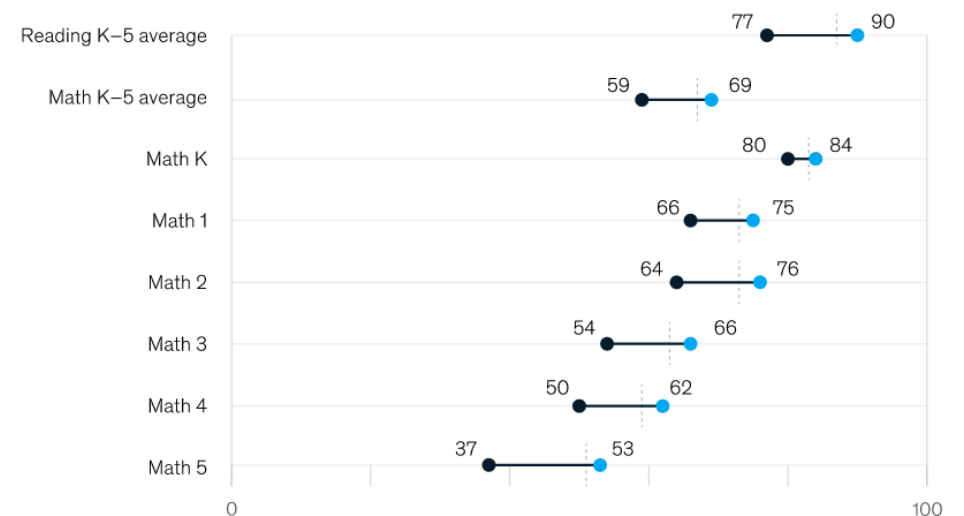
¹⁷<https://www.cdc.gov/mmwr/volumes/70/wr/mm7037a3.htm>

¹⁸<https://www.mckinsey.com/industries/public-and-social-sector/our-insights/covid-19-and-learning-loss-disparities-grow-and-students-need-help>

Most students are falling behind, but students of color are faring worse.

Amount students learned in the 2019–20 school year, % of historical scores¹

- Schools with >50% students of color
- All schools average
- Schools with >50% white students



¹Percent of an “average” year of learning gained by students in 2019–20 school year, where 100% is equivalent to historical matched scores over previous 3 years. Source: Curriculum Associates

Focused protection for the vulnerable

The vulnerable must not be forgotten. Even with vaccines available, some people will remain at risk of severe disease from COVID infections.

“Focused protection” methods protect the vulnerable without widespread disruption to society or harms to healthy children.

If you think you are at elevated risk, discuss with your doctor. It is common for members of the general public to incorrectly estimate their personal risk. If you are in a very high-risk category:

1. Get fully vaccinated and boosted. Boosters greatly reduce the risk for the most vulnerable.¹⁹
2. During periods of high transmission, limit your exposure by quarantining and avoiding indoor public spaces.
3. Use **well-fitted N95 respirators**. A properly-fitted N95 is highly effective at protecting the wearer, and does not rely on the behavior of others around you for protection.²⁰ **High-quality one-way masking is more effective at protecting the vulnerable than universal use of low-quality masks.**
4. Test right away if you develop respiratory symptoms, and seek early treatment if positive. Multiple effective treatments for all COVID variants now exist, and early treatment is highly effective at preventing severe outcomes of COVID-19.

Focused protection works. It’s how we have managed other respiratory viruses for high-risk individuals for our entire lives.

¹⁹<https://www.gov.uk/government/news/boosters-continue-to-provide-high-levels-of-protection-against-severe-disease-from-omicron-in-older-adults>

²⁰<https://www.cdc.gov/niosh/docs/2010-133/pdfs/2010-133.pdf>

Recommendations

Maintain in-person learning regardless of case counts. Students' overall health is best supported by keeping daycares, pre-schools, and schools open.

De-escalate fear around getting COVID.

- Talk openly with children and parents about how well the vaccines work and how safe we are.
- For healthy children, COVID is a flu-like risk if unvaccinated and almost no danger if vaccinated.
- Encourage children, parents, and staff to see mild COVID infections as inevitable and not alarming.
- Encourage a booster dose for parents, caregivers and school employees, especially if older or in higher-risk groups.

Apply focused protection measures to protect community members who remain at high risk.

Change the focus to supporting students' mental, emotional, and social health.

- Avoid escalating mask rules or other COVID policies. More restrictive policies increase fear & falsely convey that schools are unsafe. This increases harm to student mental health, which can have major detrimental effects.
- Do not treat vaccinated and unvaccinated children differently. Children are not a danger.
- Encourage extracurricular activities and social events without fear.
- Restore fully normal life and school for all children at the first opportunity.

Health is about more than the mere absence of COVID-19

It is time to appropriately balance risks to children's health

- Disruptions to normal living can never be harm-free
- Coronavirus is here to stay
- We cannot eliminate risk, but we *can* reduce it to levels we've always known how to live with

Reclaiming normal life for our kids is the best way to support and protect them

We Learned Our Lesson Last Year: Do Not Close Schools

Dec. 20, 2021

By Joseph G. Allen

Dr. Allen is an associate professor and director of the Healthy Buildings program at Harvard T.H. Chan School of Public Health. He is also the chair of the Lancet Covid-19 Commission Task Force on Safe Work, Safe School and Safe Travel.

We encourage you to read this article in the New York Times.²¹ Dr. Allen’s recommendations overlap completely with our own, and with those of many other infectious disease and public health experts.

“The risk of severe outcomes to kids from coronavirus infection is low, and the risks to kids from being out of school are high.”

“We should make masking in schools voluntary rather than mandatory. Masking was a necessary inconvenience early on and in short stints was fine. But to think that two years of masking has no impact on socialization, learning and anxiety is shortsighted. Kids are resilient but not endlessly resilient.”

“Schools should never close.”

²¹<https://www.nytimes.com/2021/12/20/opinion/omicron-schools-do-not-close.html>

Appendix: data on student masking

Student masking is the most visible and controversial part of ongoing school COVID mitigations. The most important thing to remember is that the risk of severe disease from COVID-19 for healthy children has always been low, and in vaccinated children COVID is much less dangerous than the flu.

Well-controlled real-world studies have not demonstrated any clear benefit of masking students.

To be informative, studies on school mask usage should evaluate **effectiveness in real-world use**, and **must include a well-matched unmasked control group**.

Several studies meeting this criteria are available, and the results are consistent.

Mask Use and Ventilation Improvements to Reduce COVID-19 Incidence in Elementary Schools — Georgia, November 16–December 11, 2020

Jenna Gettings, DVM^{1,2,3}; Michaila Czarnik, MPH^{1,4}; Elana Morris, MPH¹; Elizabeth Haller, MEd¹; Angela M. Thompson-Paul, PhD¹; Catherine Rasberry, PhD¹; Tatiana M. Lanzieri, MD¹; Jennifer Smith-Grant, MSPH¹; Tiffany Michelle Aholou, PhD¹; Ebony Thomas, MPH²; Cherie Drenzek, DVM²; Duncan MacKellar, DrPH¹

This CDC study found a 21% lower COVID incidence in schools that required mask use among students, but couldn't be sure the benefit was real. (In scientific terms, "not statistically significant.")²²



Evidence Summary

Coronavirus (COVID-19) and the use of face coverings in education settings

January 2022

This evaluation by the United Kingdom's Health Security Agency and Department for Education found an 11% reduction in student COVID cases with mask usage, but also couldn't be sure the benefit was real. (Not statistically significant.)²³

²²<https://www.cdc.gov/mmwr/volumes/70/wr/pdfs/mm7021e1-H.pdf>

²³https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1044767/Evidence_summary_-_face_coverings.pdf


Academic studies confirm the results of government studies on school mask efficacy.

COVID-19 Mitigation Practices and COVID-19 Rates in Schools: Report on Data from Florida, New York and Massachusetts

Emily Oster, Rebecca Jack, Clare Halloran, John Schoof, Diana McLeod

“We do not find any correlations with mask mandates.”²⁴

Reported COVID-19 Incidence in Wisconsin High School Athletes in Fall 2020

Phillip Sasser, MD, MS; Timothy McGuine, PhD, LAT; Kristin Haraldsdottir, PhD; Kevin Biese, MA, LAT; Leslie Goodavish, PA; Bethany Stevens; Andrew M. Watson, MD, MS. 

J Athl Train (2021)

“There were no significant associations between COVID-19 incidence and face mask use.”²⁵

Age-dependency of the Propagation Rate of Coronavirus Disease 2019 Inside School Bubble Groups in Catalonia, Spain

Sergio Alonso, PhD, Enric Alvarez-Lacalle, PhD,* Martí Català, MSc,*† Daniel López, PhD,* Iolanda Jordan, MD, PhD,‡§¶ Juan José García-García, MD, PhD,§¶ Antoni Soriano-Arandes, MD, PhD,** Uxue Lazcano, MSc,†† Pilar Sallés, MSc,‡‡ Marta Masats, MSc,‡‡ Julià Urrutia, MSc,‡‡ Anna Gatell, MD,§§ Ramon Capdevila, MD,¶¶ Pere Soler-Palacin, MD, PhD,** Quique Bassat, MD, PhD,¶¶¶¶***†††† and Clara Prats, PhD*†*

In-school COVID transmission was the same in 4-5 year olds where masking was not used and in 6-7 year olds where masking was required.²⁶

²⁴<https://www.medrxiv.org/content/10.1101/2021.05.19.21257467v1.full>

²⁵<https://meridian.allenpress.com/jat/article/doi/10.4085/1062-6050-0185.21/466422/Reported-COVID-19-Incidence-in-Wisconsin-High>

²⁶https://journals.lww.com/pidj/Fulltext/2021/11000/Age_dependency_of_the_Propagation_Rate_of.2.aspx

Many studies on school masking don't have appropriate controls.

These and other commonly cited studies don't have appropriate control groups and can't tell us anything about whether student masking is effective.

Prevalence and risk factors for in-school transmission of SARS-CoV-2 in Massachusetts K-12 public schools, 2020-2021

Sandra B. Nelson, Caitlin M. Dugdale, Alyssa Bilinski, Duru Cosar, Nira R. Pollock, Andrea Ciaranello
doi: <https://doi.org/10.1101/2021.09.22.21263900>

Association Between K–12 School Mask Policies and School-Associated COVID-19 Outbreaks — Maricopa and Pima Counties, Arizona, July–August 2021

Megan Jehn, PhD^{1*}; J. Mac McCullough, PhD^{2*}; Ariella P. Dale, PhD^{3,4}; Matthew Gue¹; Brian Eller⁵; Theresa Cullen, MD⁵; Sarah E. Scott, MD⁴

Pediatric COVID-19 Cases in Counties With and Without School Mask Requirements — United States, July 1–September 4, 2021

Samantha E. Budzyn, MPH^{1,2}; Mark J. Panaggio, PhD³; Sharyn E. Parks, PhD¹; Marc Papazian⁴; Jake Magid, MEng⁴; Lisa C. Barrios, DrPH¹

“All reported classroom exposures were masked, so these results do not directly inform the impact of masking within classrooms.”²⁷

This study used a control group, but did not control for vaccination rates and had additional serious flaws.²⁸ *The Atlantic* published a thorough critique with the conclusion “You can't learn anything about the effects of school mask mandates from this study.”²⁹

In this study, the masked and unmasked schools were not compared for vaccination rates, and vaccination rates tend to be much higher in counties with mask requirements.³⁰ The authors state that regarding masks, “causation cannot be inferred.”³¹

²⁷<https://www.medrxiv.org/content/10.1101/2021.09.22.21263900v1>

²⁸<https://www.cdc.gov/mmwr/volumes/70/wr/mm7039e1.htm>

²⁹<https://www.theatlantic.com/science/archive/2021/12/mask-guidelines-cdc-walensky/621035/>

³⁰<https://www.sfgate.com/california-politics/article/California-mask-mandate-omicron-16701224.php>

³¹<https://www.cdc.gov/mmwr/volumes/70/wr/pdfs/mm7039e3-H.pdf>

Focused protection should be applied to vulnerable children too

A very small sub-set of children have medical conditions that affect their immune systems such that they are ineligible for vaccination or are unlikely to respond to vaccination.

These children and their family members should follow the guidance of their medical team to reduce risk and may need to continue masking with a **high-quality, carefully fitted respirators** to protect against COVID and other respiratory viruses.

Proper respirator fit is crucial to maximizing protection, and can be done effectively for those in need of targeted protection. In contrast, untrained respirator use commonly results in poor fit and ineffective filtration.³²

Focused protection for these children can offer better protection than universal child masking, which has little to no efficacy in well-controlled real-world studies.

No study has shown benefit from universal use of respirators in children, and the potential for harm is large.

³²<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0245688>

School masking summary

Student masking has no scientifically established benefit in real-world use.

- When an intervention's real-world benefits are too small to measure, we should feel comfortable ending its use.
- Potential harms from long-term masking are poorly understood, and reports on mask removal have noted social and emotional benefits for students.³³

Moving to mask-optional policies - and increasing school-based support and interventions for children - will be crucial for student mental health.

- The need for normalcy at school is urgent, but preparing for change may take time in many places. We recommend ending mandatory masking no later than Feb 15th.
- This will allow schools to communicate and prepare, for anxieties to fall as the Omicron peak subsides, and for additional families to get their children fully vaccinated if they so choose. Anyone who wants or needs to continue using a mask is free to do so.

³³<https://www.wbur.org/news/2021/11/12/hopkinton-high-school-mask-free-trial-policy>

All analyses and recommendations presented here represent the author's combined perspective, and do not represent the view of any of our employers or institutions.

You can download a copy of the toolkit here:



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