How Can You "Follow The Science" When There Is "No Science Behind Mask Mandates For Children"?

CDC Ignores Research, Or Lack Thereof, And Recommends
Mask Mandates For Students In Schools

"AMBITIOUS AND GROUNDBREAKING" CDC STUDY FINDS "NULL EFFECTS" OF MASK MANDATES IN SCHOOLS

A May 2021 Study From The CDC Found That Incidence Of COVID-19 For Students In Schools Mandating Masks "Was Not Statistically Significant Compared With Schools Where Mask Use Was Optional." "The 21% lower incidence in schools that required mask use among students was not statistically significant compared with schools where mask use was optional. This finding might be attributed to higher effectiveness of masks among adults, who are at higher risk for SARS-CoV-2 infection but might also result from differences in mask-wearing behavior among students in schools with optional requirements." (Jenna Gettings, DVM; Michaila Czarnik, MPH; Elana Morris, MPH; Elizabeth Haller, MEd; Angela M. Thompson-Paul, PhD; Catherine Rasberry, PhD; Tatiana M. Lanzieri, MD; Jennifer Smith-Grant, MSPH; Tiffiany Michelle Aholou, PhD; Ebony Thomas, MPH; Cherie Drenzek, DVM; Duncan MacKellar, DrPH; "Mask Use and Ventilation Improvements to Reduce COVID-19 Incidence in Elementary Schools — Georgia, November 16-December 11, 2020," U.S. Centers for Disease Control and Prevention's Morbidity and Mortality Weekly Report, 5/21/21)

• The CDC's "Ambitious And Groundbreaking" Study Covered More Than 90,000 Georgia Students Who Attended 169 Schools, Some With Mask Mandates And Some Without. "The study published by the CDC was both ambitious and groundbreaking. It covered more than 90,000 elementary-school students in 169 Georgia schools from November 16 to December 11 and was, according to the CDC, the first of its kind to compare COVID-19 incidence in schools with certain mitigation measures in place to other schools without those measures." (David Zweig, "The Science of Masking Kids at School Remains Uncertain," New York Magazine's Intelligencer, 8/20/21)

Scientists: CDC's Omission of Findings "Amounted to 'File Drawering"

Scientists Accused The CDC of Burying The Study's Finding Of "Null Effects Of A Student Masking Requirement" By Leaving It Out Of The Study's Summary. "Scientists I spoke with believe that the decision not to include the null effects of a student masking requirement (and distancing, hybrid models, etc.) in the summary amounted to 'file drawering' these findings, a term researchers use for the practice of burying studies that don't produce statistically significant results." (David Zweig, "The Science of

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Masking Kids at School Remains Uncertain," New York Magazine's Intelligencer, 8/20/21)

- Vinay Prasad, Associate Professor In University Of California, San Francisco's Department Of Epidemiology And Biostatistics: "It Should Have Been Included In The Summary." "That a masking requirement of students failed to show independent benefit is a finding of consequence and great interest,' says Vinay Prasad, an associate professor in University of California, San Francisco's Department of Epidemiology and Biostatistics. 'It should have been included in the summary." (David Zweig, "The Science of Masking Kids at School Remains Uncertain," New York Magazine's Intelligencer, 8/20/21)
- Tracy Hoeg, An Epidemiologist And Associate Researcher At The University Of California, Davis: "The Summary Gives The Impression That Only Masking Of Staff Was Studied, When In Reality There Was This Additional Important Detection About A Student-Masking Requirement Not Having A Statistical Impact." "The summary gives the impression that only masking of staff was studied,' says Tracy Hoeg, an epidemiologist and the senior author of a separate CDC study on COVID-19 transmission in schools, 'when in reality there was this additional important detection about a student-masking requirement not having a statistical impact." (David Zweig, "The Science of Masking Kids at School Remains Uncertain," New York Magazine's Intelligencer, 8/20/21)

About Two Months Later, The CDC Ignores Its Own Study, Recommends "Universal Indoor Masking" In Schools

The CDC Recommends "Universal Indoor Masking" For Students In School. "CDC recommends universal indoor masking for all teachers, staff, students, and visitors to K-12 schools, regardless of vaccination status." ("Guidance for COVID-19 Prevention in K-12 Schools," U.S. Centers for Disease Control and Prevention, 8/5/21, Accessed 8/30/21)

The American Academy Of Pediatrics Issued Guidance In July That "All Students Older Than 2 Years Old... Should Wear Face Masks At School." "All students older than 2 years and all school staff should wear face masks at school (unless medical or developmental conditions prohibit use)." ("COVID-19 Guidance for Safe Schools," American Academy of Pediatrics, Accessed 8/30/21)

While AAP, CDC Use Silence And Misdirection When Pressed On Recommendations, "Many Experts" More Open And Direct

In Response To A Reporter's Request For "Underlying Data" To Support Their Recommendation For Universal Masking In Schools, AAP "Did Not Respond" And The CDC "Links To Unrelated Materials On Vaccines And A Recent Outbreak Among Adults." "After the CDC and the American Academy of Pediatrics issued their student-mask guidance last month, I contacted both organizations asking for the evidence or underlying data upon which they had based their recommendations. The AAP did not respond to multiple requests. The CDC press office replied that since children under 12 cannot be vaccinated, the agency 'recommends schools do universal masking' and included links to unrelated materials on vaccines and a recent outbreak

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After Consulting "Many Experts," "Nobody Was Able To Find A Data Set As Robust As The Georgia Results — That Is, A Large Cohort Study Directly Looking At The Effects Of A Mask Requirement." "Over the course of several weeks, I also corresponded with many experts — epidemiologists, infectious-disease specialists, an immunologist, pediatricians, and a physician publicly active in matters relating to COVID — asking for the best evidence they were aware of that mask requirements on students were effective. Nobody was able to find a data set as robust as the Georgia results — that is, a large cohort study directly looking at the effects of a mask requirement." (David Zweig, "The Science of Masking Kids at School Remains Uncertain," New York Magazine's Intelligencer, 8/20/21)

SCIENTISTS, DOCTORS, RESEARCHERS FIND "NO SCIENCE BEHIND MASK MANDATES FOR CHILDREN"

Dr. Marty Makary And Dr. H. Cody Meissner: "There's No Science Behind Mask Mandates For Children." "We have been encouraging Americans to wear masks since the beginning of the pandemic. But special attention should be paid to the many children who struggle with masks. Public-health officials claim to base their decisions and guidance on science, but there's no science behind mask mandates for children." (Marty Makary and H. Cody Meissner, "The Case Against Masks for Children," *The Wall Street Journal*, 8/8/21)

- Dr. Marty Makary Is A Professor At Johns Hopkins School Of Medicine.
 (Profile of Martin Adel Makary, M.D., M.P.H., Johns Hopkins Medicine website, Accessed 8/30/21)
- Dr. H. Cody Meissner Is Chief Of Pediatric Infectious Disease At Tufts Children's Hospital And A Professor Of Pediatrics At Tufts University School Of Medicine. (Profile of H. Cody Meissner, M.D., <u>Tufts Children's Hospital Website</u>, Accessed 8/30/21)

Dr. Vinay Prasad, M.D., M.P.H., And Associate Professor Of Medicine At The University Of California San Francisco: "The CDC Cannot 'Follow The Science' Because There Is No Relevant Science." "The CDC cannot 'follow the science' because there is no relevant science. The proposition is at best science-y; a best guess based on political pressure, pundit anxiety, and mechanistic understanding." (Vinay Prasad, "What's the Evidence Guiding CDC's Latest Mask Policy?" Medpage Today, 7/29/21)

• Dr. Prasad: "We Have Learned Next To Nothing" About The Efficacy Of Mask Mandates. "When it comes to non-pharmacologic interventions such as mandatory business closures, mask mandates, and countless other interventions, the shocking conclusion of the last 18 months is this: We have learned next to nothing. Yet, here we are again with CDC changing its mind on masking, but what new evidence is guiding the policy?" (Vinay Prasad, "What's the Evidence Guiding CDC's Latest Mask Policy?" Medpage Today, 7/29/21)

Dr. Martin Kulldorff, Professor Of Medicine At Harvard Medical School: "No Scientific Evidence That Masking Children Is Effective." "Triple stumble by Fauci[:]

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- 1. No scientific evidence that masking children is effective[;] 2. Even if effective, children have low disease risk, minuscule mortality risk and do not transmit much[;] 3. For the rare transmission, adults should get vaccinated; not demand masks on children https://twitter.com/tomselliott/status/1415006074483118085" (Martin Kulldorff, Twitter, 7/13/21)
 - Dr. Kulldorff: "Mandating Children To Wear Masks Is Detrimental To Their Health, And Claimed Benefits To Public Health Lack Scientific Evidence." "Anthony Fauci is an immunologist, not an infectious disease epidemiologist, but happy to debate him. Mandating children to wear masks is detrimental to their health, and claimed benefits to public health lack scientific evidence. https://twitter.com/MartinKulldorff/status/1380902063136251904" (Martin Kulldorff, Twitter, 4/11/21)

Dr. Scott Balsitis, Ph.D., Viral Immunologist, And Former CDC Fellow: "No Data" To Support Universal Indoor Masking For Students. "True, in spite of having no data showing it works. Therein lies the problem. It doesn't matter how many people want something to be true, it matters if it is true. That's why most medical experts in many other countries are recommending against masking kids." (Scott J. Balsitis, Twitter, 8/27/21)

Dr. Balsitis: "We Now Have Three Studies On Masking Kids, And None Show A Significant Benefit." "We now have three studies on masking kids, and none show a significant benefit.
 https://www.cdc.gov/mmwr/volumes/70/wr/mm7021e1.htm
 https://www.medrxiv.org/content/10.1101/2021.05.19.21257467v1.full
 https://meridian.allenpress.com/jat/article/doi/10.4085/1062-6050-0185.21/466422/Reported-COVID-19-Incidence-in-Wisconsin-High" (Scott J. Balsitis, Twitter, 8/26/21)

Dr. Lucy M. McBride, M.D. And Practicing Internist: "The Science Simply Isn't There To Support A Mandate" Of Masks In Schools. "In my opinion, we should not have mask mandates in schools, given that kids are at exceedingly low risk of complications from Covid-19, and more importantly the science simply isn't there to support a mandate." (Fiona Rutherford, "Schools Get CDC Leeway on Covid Limits to Keep Kids in Class," *Bloomberg*, 7/9/21)

- Dr. McBride: "I Take Issue W/ Mask Mandates In Schools When The Science Isn't There." "I take issue w/ mask mandates in schools when the science isn't there. IMHO the decision to mask should be up to the family, child, & peds MD based on the unique child/family medical/social/environm factors. Ex. a high-risk child or a child living w/ non-immune family might mask." (Lucy McBride, MD, Twitter, 7/9/21)
- Dr. McBride: "There Isn't Any Solid Evidence That Masking Children Helps Reduce Covid Transmission. We Just Don't Have That Data." (Fiona Rutherford, "Schools Get CDC Leeway on Covid Limits to Keep Kids in Class," <u>Bloomberg</u>, 7/9/21)

Dr. Elissa Schechter-Perkins, M.D., M.P.H.: "I'm Not Aware Of Any Studies That Show Conclusively That Kids Wearing Masks In Schools Has Any Effect On Their

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Own Morbidity Or Mortality Or On The Hospitalization Or Death Rate In The Community Around Them." "A year ago, I said, 'Masks are not the end of the world; why not just wear a mask?" Elissa Schechter-Perkins, the director of Emergency Medicine Infectious Disease Management at Boston Medical Center, told me. 'But the world has changed, there are real downsides to masking children for this long, with no known end date, and without any clear upside.' She continued, 'I'm not aware of any studies that show conclusively that kids wearing masks in schools has any effect on their own morbidity or mortality or on the hospitalization or death rate in the community around them." (David Zweig, "The Science of Masking Kids at School Remains Uncertain," New York Magazine's Intelligencer, 8/20/21)

Dr. Elissa Schechter-Perkins Is An Associate Professor Of Emergency
Medicine At The Boston University School Of Medicine And The Director Of
Emergency Medicine Infectious Disease Management At Boston Medical
Center. (Profile of Elissa M. Schechter-Perkins, MD, MPH, BU School of Medicine website, Accessed 8/30/21; David
Zweig, "The Science of Masking Kids at School Remains Uncertain," New York Magazine's Intelligencer, 8/20/21)

Dr. Jeffrey Flier, M.D., Former Dean Of The Faculty Of Medicine At Harvard University: "We Lack Credible Evidence For Benefits Of Masking Kids Aged 2-5." "We lack credible evidence for benefits of masking kids aged 2-5. Despite what American Academy of Pediatrics says. @VPrasadMDMPH explains. https://twitter.com/VPrasadMDMPH/status/1417199553762119682" (Jeffrey Flier, Twitter, 7/19/21)

Study About Whether Masks Reduce Covid Transmission In Children Was "**Inconclusive.**" "Do masks reduce Covid transmission in children? Believe it or not, we could find only a single retrospective study on the question, and its results were inconclusive." (Marty Makary and H. Cody Meissner, "The Case Against Masks for Children," <u>The Wall Street Journal</u>, 8/8/21)

Researchers And Doctors In Germany Conclude That "There Is A Lack Of Evidence For Widespread Use [Of Masks] In Children." "The effectiveness of masks in children as a viral protection is controversial, and there is a lack of evidence for their widespread use in children; this is also addressed in more detail by the scientists of the German University of Bremen in their thesis paper 2.0 and 3.0." (Kai Kisielinski, Paul Giboni, Andreas Prescher, Bernd Klosterhalfen, David Graessel, Stefan Funken, Oliver Kempski, and Oliver Hirsch, "Is a Mask That Covers the Mouth and Nose Free from Undesirable Side Effects in Everyday Use and Free of Potential Hazards?" International Journal of Environmental Research and Public Health, 4/21, 18(8): 4344)

• Researchers And Doctors In Germany: "Further Research Is Particularly Desirable." "For scientists, the prospect of continued mask use in everyday life suggests areas for further research. In our view, further research is particularly desirable in the gynecological (fetal and embryonic) and pediatric fields, as children are a vulnerable group that would face the longest and, thus, most profound consequences of a potentially risky mask use." (Kai Kisielinski, Paul Giboni, Andreas Prescher, Bernd Klosterhalfen, David Graessel, Stefan Funken, Oliver Kempski, and Oliver Hirsch, "Is a Mask That Covers the Mouth and Nose Free from Undesirable Side Effects in Everyday Use and Free of Potential Hazards?" International Journal of Environmental Research and Public Health, 4/21, 18(8): 4344)

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Experts Indicate Mandating Masks In Schools "May Contribute Only A Marginal Benefit Or None At All." "Though the CDC says that layered mitigation in schools is effective, without studying each of the layers individually, it cannot know which of those measures work, and to what degree, and which don't. For example, several experts told me, it's entirely possible that open windows or fresh-air ventilation accounts for nearly all the mitigation benefit in a classroom and other 'layered' interventions may contribute only a marginal benefit or none at all." (David Zweig, "The Science of Masking Kids at School Remains Uncertain," New York Magazine's Intelligencer, 8/20/21)

Brown University Researchers Did "Not Find Any Correlations With Mask Mandates" And COVID-19 Case Rates Among Students. "This paper reports on the correlation of mitigation practices with staff and student COVID-19 case rates in Florida, New York, and Massachusetts during the 2020-2021 school year. We analyze data collected by the COVID-19 School Response Dashboard and focus on student density, ventilation upgrades, and masking. We find higher student COVID-19 rates in schools and districts with lower in-person density but no correlations in staff rates. Ventilation upgrades are correlated with lower rates in Florida but not in New York. We do not find any correlations with mask mandates. All rates are lower in the spring, after teacher vaccination is underway." (Emily Oster, Rebecca Jack, Clare Halloran, John Schoof, Diana McLeod, "COVID-19 Mitigation Practices and COVID-19 Rates in Schools: Reporton Data from Florida, New York and Massachusetts," med Rxiv, 5/21/21)

World Health Organization: Studies On Effectiveness Of Masking Students In School Are "Sparse." "Studies on the effects of risk-mitigation interventions in schools, such as limiting contact between children, wearing masks (outside or in classes continuously), closing areas and activities (play, sports, canteens) and enhancing ventilation, are sparse." (World Health Organization, "Schooling during COVID-19: recommendations from the European Technical Advisory Group for schooling during COVID-19," WHO Regional Office for Europe, 6/21)

But CDC Recommendations, News Headlines Ignore "Lack Of Evidence" On Masking Kids In School

"The Best Practices For Mask Use In Schools...Are Much Less Obvious Than CDC Guidance And News Headlines About Keeping Schools Safe Might Have You Believe." "But with tens of millions of American kids headed back to school in the fall, their parents and political leaders owe it to them to have a clear-sighted, scientifically rigorous discussion about which anti-COVID measures actually work and which might put an extra burden on vulnerable young people without meaningfully or demonstrably slowing the spread of the virus. In that context, the best practices for mask use in schools — elementary schools in particular — are much less obvious than CDC guidance and news headlines about keeping schools safe might have you believe." (David Zweig, "The Science of Masking Kids at School Remains Uncertain," New York Magazine's Intelligencer, 8/20/21)

SCIENTISTS, DOCTORS, RESEARCHERS FIND NEGATIVE IMPACTS OF MASKING CHILDREN

Experts Find Children Can Face "Psychological Harm" From Wearing Masks

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Children Can Face "Psychological Harm" From Masking, Including "Robotic And Emotionless Interactions, Anxiety And Depression," According To Professors Of Medicine At Johns Hopkins University And Tufts University. "The possible psychological harm of widespread masking is an even greater worry. Facial expressions are integral to human connection, particularly for young children, who are only learning how to signal fear, confusion and happiness. Covering a child's face mutes these nonverbal forms of communication and can result in robotic and emotionless interactions, anxiety and depression. Seeing people speak is a building block of phonetic development. It is especially important for children with disabilities such as hearing impairment." (Marty Makary and H. Cody Meissner, "The Case Against Masks for Children," The Wall Street Journal, 8/8/21)

Mask Mandates In Schools Can Impact The "Psychological And Physical Development Of Healthy Children." "The long-term sociological, psychological and educational consequences of a comprehensive masking requirement extended to schools are also unpredictable with regard to the psychological and physical development of healthy children." (Kai Kisielinski, Paul Giboni, Andreas Prescher, Bernd Klosterhalfen, David Graessel, Stefan Funken, Oliver Kempski, and Oliver Hirsch, "Is a Mask That Covers the Mouth and Nose Free from Undesirable Side Effects in Everyday Use and Free of Potential Hazards?" International Journal of Environmental Research and Public Health, 4/21, 18(8): 4344)

Mask-Wearing Children May Face "Panic Attacks" And "Claustrophobic Fears." "In the field of pediatrics, special attention should also be paid to the mask symptoms described under psychological, psychiatric and sociological effects with possible triggering of panic attacks by CO2 rebreathing in the case of predisposition and also reinforcement of claustrophobic fears." (Kai Kisielinski, Paul Giboni, Andreas Prescher, Bernd Klosterhalfen, David Graessel, Stefan Funken, Oliver Kempski, and Oliver Hirsch, "Is a Mask That Covers the Mouth and Nose Free from Undesirable Side Effects in Everyday Use and Free of Potential Hazards?" International Journal of Environmental Research and Public Health, 4/21, 18(8): 4344)

Children Experience Difficulty Concentrating, Joylessness, Learning Difficulties, Fatigue, Stress, And Nightmares As A Result Of Mask Wearing, According To Researchers in Germany. "A recent observational study of tens of thousands of mask-wearing children in Germany helped the investigators objectify complaints of headaches (53%), difficulty concentrating (50%), joylessness (49%), learning difficulties (38%) and fatigue in 37% of the 25,930 children evaluated. Of the children observed, 25% had new onset anxiety and even nightmares. In children, the threat scenarios generated by the environment are further maintained via masks, in some cases, even further intensified, and in this way, existing stress is intensified (presence of subconscious fears). This can in turn lead to an increase in psychosomatic and stress-related illnesses." (Kai Kisielinski, Paul Giboni, Andreas Prescher, Bernd Klosterhalfen, David Graessel, Stefan Funken, Oliver Kempski, and Oliver Hirsch, "Is a Mask T hat Covers the Mouth and Nose Free from Undesirable Side Effects in Everyday Use and Free of Potential Hazards?" International Journal of Environmental Research and Public Health, 4/21, 18(8): 4344)

• In The Study, Mask-Wearing Children Showed High Stress Levels, With 60% At The Highest Possible Level. "For example, according to an evaluation, 60% of mask wearers showed stress levels of the highest grade 10 on a scale of 1 to a maximum of 10. Less than 10% of the mask wearers surveyed had a stress level lower than 8 out of a possible 10." (Kai Kisielinski, Paul Giboni, Andreas Prescher, Bernd Klosterhalfen, David Graessel, Stefan Funken, Oliver Kempski, and Oliver Hirsch, "Is a Mask That Covers the

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Mouth and Nose Free from Undesirable Side Effects in Everyday Use and Free of Potential Hazards?" <u>International Journal of Environmental Research and Public Health</u>, 4/21, 18(8): 4344)

• Masks "Caused Fear In 46% Of Children" In One Scientific Study. "Both masks and face shields caused fear in 46% of children (37 out of 80) in a scientific study. If children are given the choice of whether the doctor examining them should wear a mask they reject this in 49% of the cases. Along with their parents, the children prefer the practitioner to wear a face visor (statistically significant with p < 0.0001)." (Kai Kisielinski, Paul Giboni, Andreas Prescher, Bernd Klosterhalfen, David Graessel, Stefan Funken, Oliver Kempski, and Oliver Hirsch, "Is a Mask That Covers the Mouth and Nose Free from Undesirable Side Effects in Everyday Use and Free of Potential Hazards?" International Journal of Environmental Research and Public Health, 4/21, 18(8): 4344)

A Pediatric Immunologist Cites "Obvious Socio-Emotional And Educational Harms From Masking Children For This Unprecedented Duration Of Time." "The pediatric immunologist said, 'Even with a new variant, the onus is on those who recommend masking kids to robustly demonstrate a meaningful benefit, especially when the pre-Delta study of the Georgia schools did not find one, and when there are obvious socio-emotional and educational harms from masking children for this unprecedented duration of time." (David Zweig, "The Science of Masking Kids at School Remains Uncertain," New York Magazine's Intelligencer, 8/20/21)

Experts Find Children Can Face Developmental Setbacks From Wearing Masks

Masking's Impact On "Social Interaction Is Particularly Serious For Children." "The mask-related disturbance of verbal and non-verbal communication and, thus, of social interaction is particularly serious for children. Masks restrict social interaction and block positive perceptions (smiling and laughing) and emotional mimicry." (Kai Kisielinski, Paul Giboni, Andreas Prescher, Bernd Klosterhalfen, David Graessel, Stefan Funken, Oliver Kempski, and Oliver Hirsch, "Is a Mask That Covers the Mouth and Nose Free from Undesirable Side Effects in Everyday Use and Free of Potential Hazards?" International Journal of Environmental Research and Public Health, 4/21, 18(8): 4344)

Dr. Lloyd Fisher, President Of The Massachusetts Chapter Of The American Academy Of Pediatrics: "It Is Important For Children To See Facial Expressions Of Their Peers And The Adults Around Them In Order To Learn Social Cues And Understand How To Read Emotions." "Mask-wearing among children is generally considered a low-risk mitigation strategy; however, the negatives are not zero, especially for young children,' said Lloyd Fisher, the president of the Massachusetts chapter of the American Academy of Pediatrics. 'It is important for children to see facial expressions of their peers and the adults around them in order to learn social cues and understand how to read emotions.' Some children with special needs, for example those with articulation delays, may be most affected, he suggested." (David Zweig, "The Science of Masking Kids at School Remains Uncertain," New York Magazine's Intelligencer, 8/20/21)

A Leader With The American Academy Of Pediatrics Said, "There Very Good Reasons" Not To Mask Children, Including For Their "Social Emotional Learning." "There are very good reasons that the World Health Organization has repeatedly affirmed their guidance for children under 6 to not wear masks,' said a pediatrician who has both state and national leadership roles in the AAP but who wished to remain anonymous because they did not want to jeopardize their roles in the organization.

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'Reading faces is critical for social emotional learning. And all children are actively learning language the first five years of life, for which seeing faces is foundational,' the pediatrician said." (David Zweig, "The Science of Masking Kids at School Remains Uncertain," New York Magazine's Intelligencer, 8/20/21)

Experts Find Children Can Face Medical Complications From Wearing Masks

Mask-Wearing Children Can Face "Increased Carbon Dioxide Levels In The Blood," Exposure To Pathogens, Skin Problems, And Distractions From Learning. "Those who have myopia can have difficulty seeing because the mask fogs their glasses. (This has long been a problem for medical students in the operating room.) Masks can cause severe acne and other skin problems. The discomfort of a mask distracts some children from learning. By increasing airway resistance during exhalation, masks can lead to increased levels of carbon dioxide in the blood. And masks can be vectors for pathogens if they become moist or are used for too long." (Marty Makary and H. Cody Meissner, "The Case Against Masks for Children," *The Wall Street Journal*, 8/8/21)

Children Wearing Masks "Can Develop A Mouth Deformity And Elongated Face." "Some children compensate for such difficulties by breathing through their mouths. Chronic and prolonged mouth breathing can alter facial development. It is well-documented that children who mouth-breathe because adenoids block their nasal airways can develop a mouth deformity and elongated face." (Marty Makary and H. Cody Meissner, "The Case Against Masks for Children," *The Wall Street Journal*, 8/8/21)

THE CDC IGNORES THE LACK OF EVIDENCE ON MASK MANDATES FOR STUDENTS, BUT OTHER COUNTRIES DON'T

Many European Nations "Have Exempted Kids...From Wearing Masks In Classrooms" With "No Evidence Of More Outbreaks In Schools In Those Countries Relative To Schools In The U.S." "In the realm of science and public-health policy outside the U.S., the implications of these particular findings are not exactly controversial. Many of America's peer nations around the world — including the U.K., Ireland, all of Scandinavia, France, the Netherlands, Switzerland, and Italy — have exempted kids, with varying age cutoffs, from wearing masks in classrooms. Conspicuously, there's no evidence of more outbreaks in schools in those countries relative to schools in the U.S., where the solid majority of kids wore masks for an entire academic year and will continue to do so for the foreseeable future." (David Zweig, "The Science of Masking Kids at School Remains Uncertain," New York Magazine's Intelligencer, 8/20/21)

In The United Kingdom, The Department For Education Advised In August 2021 That "Face Coverings Are No Longer Advised For Pupils." "Face coverings are no longer advised for pupils, staff and visitors either in classrooms or in communal areas." ("Schools COVID-19 operational guidance," U.K. Department for Education, 8/27/21)

 The Department For Education Guidance Was Directed Toward School Leaders And Staff In Primary And Secondary Schools, Among Others. "This guidance explains the actions school leaders should take to reduce the risk of transmission of coronavirus (COVID-19) in their school. This includes public

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health advice, endorsed by Public Health England (PHE). It is for leaders and staff in: primary schools; secondary schools (including sixth forms); special schools, special post-16 providers and alternative provision; 16 to 19 academies; infant, junior, middle, upper schools; [and] boarding schools. We expect independent schools to follow the control measures set out in this guidance in the same way as state-funded schools, and health and safety legislation applies equally to independent schools." ("Schools COVID-19 operational guidance," U.K. Department for Education, 8/27/21)

Norwegian Public Health Officials "Do Not Recommend The Use Of Face Masks By Children." "We do not recommend the use of face masks by children. Children may have difficulty wearing a face mask correctly, and very young children may find it difficult to breathe well when wearing a face mask." ("Use of face masks in schools and childcare centres," Norwegian Institute of Public Health, 8/14/20)

- Further, Norwegian Public Health Officials "Do Not Recommend The Use Of Face Masks In Schools." "We do not recommend the use of face masks in schools. This applies to both students and staff in primary school, secondary school and upper secondary school. The same applies to children and staff in childcare centres." ("Use of face masks in schools and childcare centres," Norwegian Institute of Public Health, 8/14/20)
- Norwegian Institute Of Public Health: "Transmission In Schools And Childcare Centres Contributes Only To A Small Extent In The Spread Of COVID-19 In The Society." ("Advice and information for children and adolescents," No twegian Institute of Public Health, 8/19/21)

In Sweden, "Classes Have Been Compulsory For All Pupils Up To The Age Of 16, With No Mandatory Face Masks For Pupils Or Teachers." "The country's public health authorities made the decision to keep schools open at the start of the outbreak and they stuck by this even when the death rate was ten times higher than in Sweden's Nordic neighbours. Classes have been compulsory for all pupils up to the age of 16, with no mandatory face masks for pupils or teachers." ("Sweden has kept schools open during the pandemic despite spike in cases," France 24, 9/17/20)

• Sweden, Which Has No Mask Mandates In Schools For Students Under 16 Years Old, Had "Zero COVID Deaths Among Its 1.8M Children During First Wave." "With open schools and no masks for ages 1-15 in Sweden, there were zero COVID deaths among its 1.8M children during first wave. Teachers had lower risk than average of other professions. So, we knew early on that schools are safe without masks." (Jonas F. Ludvigsson, M.D., Ph.D., Lars Engerström, M.D., Ph.D., Charlotta Nordenhäll, M.D., Ph.D., and Emma Larsson, M.D., Ph.D., "Open Schools, Covid-19, and Child and Teacher Morbidity in Sweden," The New England Journal of Medicine, 1/6/21, 384:669-671)

Ireland does not require masks in schools. "In March, Ireland's Department of Health announced that it won't require masks in schools because they 'may exacerbate anxiety or breathing difficulties for some students." (Marty Makary and H. Cody Meissner, "The Case Against Masks for Children," *The Wall Street Journal*, 8/8/21)

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The World Health Organization "Differs Substantially" From The CDC By Not Recommending Universal Masking For Kids Under 12 Years Of Age

The World Health Organization Advises That "Children Aged 5 Years And Under Should Not Be Required To Wear Masks." "In general, children aged 5 years and under should not be required to wear masks. This advice is based on the safety and overall interest of the child and the capacity to appropriately use a mask with minimal assistance." (World Health Organization, "Coronavirus disease (COVID-19): Children and masks," World Health Organization website, 8/21/20)

• The World Health Organization And UNICEF Recommend Masks For Children Aged 6-11 Only Under Certain Circumstances. "WHO and UNICEF advise that the decision to use masks for children aged 6-11 should be based on the following factors: Whether there is widespread transmission in the area where the child resides[;] The ability of the child to safely and appropriately use a mask[;] Access to masks, as well as laundering and replacement of masks in certain settings (such as schools and childcare services)[;] Adequate adult supervision and instructions to the child on how to put on, take off and safely wear masks[;] Potential impact of wearing a mask on learning and psychosocial development, in consultation with teachers, parents/caregivers and/or medical providers[;] Specific settings and interactions the child has with other people who are at high risk of developing serious illness, such as the elderly and those with other underlying health conditions." (World Health Organization, "Coronavirus disease (COVID-19): Children and masks," World Health Organization website, 8/21/20)

The World Health Organization's Guidance On Masking Children "Differs Substantially From The CDC's Recommendations." "These countries, along with the World Health Organization, whose child-masking guidance differs substantially from the CDC's recommendations, have explicitly recognized that the decision to mask students carries with it potential academic and social harms for children and may lack a clear benefit. To date, the highly transmissible Delta variant has not led them to change this calculus. (Many experts I spoke with told me that while the Delta variant represents a major and concerning new development in the Covid pandemic, it probably shouldn't change our thinking on a mask requirement for schools.)" (David Zweig, "The Science of Masking Kids at School Remains Uncertain," New York Magazine's Intelligencer, 8/20/21)

EXPERTS' SUGGESTIONS TO POLICYMAKERS: CONSULT PARENTS, CONSIDER IMPACT OF MASKS ON KIDS, MAKE INFORMED DECISIONS BASED ON RELIABLE DATA AND RESEARCH

The World Health Organization And UNICEF Encourage Policymakers To Consider The "Potential Impact Of Wearing A Mask On Learning And Psychosocial Development, In Consultation With Teachers, Parents/Caregivers And/Or Medical Providers." "WHO and UNICEF advise that the decision to use masks for children aged 6-11 should be based on the following factors: Whether there is widespread transmission in the area where the child resides[;] The ability of the child to safely and appropriately use a mask[;] Access to masks, as well as laundering and

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replacement of masks in certain settings (such as schools and childcare services)[;] Adequate adult supervision and instructions to the child on how to put on, take off and safely wear masks[;] Potential impact of wearing a mask on learning and psychosocial development, in consultation with teachers, parents/caregivers and/or medical providers[;] Specific settings and interactions the child has with other people who are at high risk of developing serious illness, such as the elderly and those with other underlying health conditions." (World Health Organization, "Coronavirus disease (COVID-19): Children and masks," World Health Organization website, 8/21/20)

Researchers in Germany Assert Policymakers Should Take Into Account "The Proven Mask-Induced Mild To Moderate Cognitive Impairment With Impaired Thinking, Decreased Attention And Dizziness, As Well As The Psychological And Neurological Effects" When Considering Mandating Masks For Students. "The proven mask-induced mild to moderate cognitive impairment with impaired thinking, decreased attention and dizziness, as well as the psychological and neurological effects, should be additionally taken into account when masks are compulsory at school and in the vicinity of both public and non-public transport, also regarding the possibility of an increased risk of accidents (see also occupational health side effects and hazards)." (Kai Kisielinski, Paul Giboni, Andreas Prescher, Bernd Klosterhalfen, David Graessel, Stefan Funken, Oliver Kempski, and Oliver Hirsch, "Is a Mask That Covers the Mouth and Nose Free from Undesirable Side Effects in Everyday Use and Free of Potential Hazards?" International Journal of Environmental Research and Public Health, 4/21, 18(8): 4344)

Dr. Marty Makary and Dr. H. Cody Meissner: "Let's See Data Showing The Benefits [Of Masking Students] And Weigh Them Against The Long-Term Harm" Before Mandating Students Wear Masks. "Before we order the masking of 56 million Americans who are too young to vote and don't have a lobby, let's see data showing the benefits and weigh them against the long-term harm." (Marty Makary and H. Cody Meissner, "The Case Against Masks for Children," *The Wall Street Journal*, 8/8/21)

Doctor: A Student Wearing A Mask In School "Should Be An Individual, Nuanced Decision"

Dr. Lucy M. McBride, M.D. And Practicing Internist: "I'm Against Mask Mandates For Kids Bc There Is No One-Size-Fits-All Prescription." "To be clear: I'm against mask mandates for kids bc there is no one-size-fits-all prescription. Kids who are high-risk or who live w/ high-risk, non-immune family may decide, for ex, to mask in school when/if COVID prevalence is high. This should be an individual, nuanced decision" (Lucy McBride, MD, Twitter, 7/9/21)

EXPERTS: DELTA VARIANT SHOULDN'T OPEN THE DOOR TO MASK REQUIREMENTS FOR STUDENTS IN SCHOOLS

"A Common Argument Right Now Is That The Emergence Of The Delta Variant Changes Everything." "A common argument right now is that the emergence of the Delta variant changes everything. Currently, some regions of the U.S. are seeing a surge of infections and hospitalizations among young people. But the numbers coming out of Britain continue to suggest that Delta is not more virulent — that is, it does not

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cause more severe illness on an individual basis to unvaccinated people — despite being more contagious. A pediatric immunologist at a major university hospital who was not authorized to speak publicly said, 'It is not biologically plausible that the same variant somehow is more dangerous for kids in the U.S. than it is in the U.K.'" (David Zweig, "The Science of Masking Kids at School Remains Uncertain," New York Magazine's Intelligencer, 8/20/21)

But Experts Indicate The Delta Variant, While A "Major And Concerning" Development, "Probably Shouldn't Change Our Thinking On A Mask Requirement For Schools." "These countries, along with the World Health Organization, whose child-masking guidance differs substantially from the CDC's recommendations, have explicitly recognized that the decision to mask students carries with it potential academic and social harms for children and may lack a clear benefit. To date, the highly transmissible Delta variant has not led them to change this calculus. (Many experts I spoke with told me that while the Delta variant represents a major and concerning new development in the Covid pandemic, it probably shouldn't change our thinking on a mask requirement for schools.)" (David Zweig, "The Science of Masking Kids at School Remains Uncertain," New York Magazine's Intelligencer, 8/20/21)

Dr. Elissa Schechter-Perkins: "I Don't Think That Delta Changes The Calculus." "More broadly, Schecter-Perkins said, 'I don't think that Delta changes the calculus because it still seems clear that it doesn't cause more severe disease, so it still doesn't change the fundamental question of 'What are we trying to achieve by masking kids when they are still extremely unlikely to suffer from severe illness or death if infected?"" (David Zweig, "The Science of Masking Kids at School Remains Uncertain," New York Magazine's Intelligencer, 8/20/21)

This research report was prepared by the Office of the Governor of Montana for informational purposes.

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