EXHIBIT A

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF IOWA

THE ARC OF IOWA, *et al.*, *Plaintiffs,* v. KIM REYNOLDS in her official capacity as Governor of Iowa, *et al.*, *Defendants*.	Case No. 4:21-cv-264

BRIEF OF *AMICI CURIAE* IOWA CHAPTER OF AMERICAN ACADEMY OF PEDIATRICS AND AMERICAN ACADEMY OF PEDIATRICS IN SUPPORT OF PLAINTIFFS' MOTION FOR PRELIMINARY INJUNCTION

TABLE OF CONTENTS

INTEREST OF *AMICI CURIAE*[1]

The Iowa Chapter of the American Academy of Pediatrics, ("IA AAP") is a non-profit educational organization and professional society comprising more than 350 members, including pediatricians, residents, and medical students from Iowa hospitals, community clinics, and school-based health centers. IA AAP works to support the optimal health of children by addressing the needs of children, their families, their communities, and their health care providers.

The American Academy of Pediatrics ("AAP") was founded in 1930 and is a national, not-for-profit professional organization dedicated to furthering the interests of child and adolescent health. The AAP's membership includes over 67,000 primary care pediatricians, pediatric medical subspecialists, and pediatric surgical specialists. Over the past year and a half, the AAP has devoted substantial resources to researching the scientific literature regarding how to treat COVID-19 and reduce its spread so that the AAP can provide up-to-date, evidence-based guidance for pediatricians and public health officials. This includes, among other things, interim guidance on the use of face masks as an infection control measure and on operating safe schools during the COVID-19 pandemic.

INTRODUCTION

The public interest is a paramount consideration in adjudicating Plaintiffs' motion for a preliminary injunction. As the Supreme Court has explained, "courts of equity should pay particular regard for the public consequences in employing the extraordinary remedy of injunction." *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 24 (2008). Here, there is no question about where

[1] *Amici* certify that no party's counsel authored this brief in whole or in part, no party or party's counsel contributed money intended to fund this brief, and no person other than *Amici*, their members, and their counsel contributed money intended to fund this brief.

the public interest points: the balance of the equities and the public interest weigh in favor of an injunction barring enforcement of House File 847 ("HF 847"), which prohibits schools from implementing universal masking policies. H.F. 847, 89th Gen. Assemb., Reg. Sess. (Iowa 2021). The science is clear: universal mask policies in schools protect all children, particularly the medically vulnerable. Schools that lack such policies experience significantly higher rates of COVID-19 transmission.

Over the past 18 months, *Amici* have worked ceaselessly to evaluate the dangers of and potential public health measures for reducing the deadly spread of COVID-19. COVID-19 poses grave risks to children, even more so to children with special health needs, and these risks are spreading rapidly with the rise of the Delta variant and the start of the school year. At the same time, the AAP strongly recommends that everything possible must be done to keep students in school in-person, something that can be done safely only if all reasonable precautions are taken. The AAP has conducted a comprehensive review of the medical literature to determine what public health measures can effectively reduce the risk that COVID-19 poses to American's children. That review and the experiences of the front-line pediatric practitioners who make up the IA AAP and AAP's membership prove beyond any doubt that universal mask policies in schools significantly reduce the spread of COVID-19 in school populations where many children—including all children under the age of 12—are unvaccinated. This brief provides an overview of that literature and explains why universal mask policies are so crucial in fighting COVID-19.

ARGUMENT

I. Children With Special Health Needs are Especially Vulnerable to COVID-19.

The AAP and the Children's Hospital Association have collaborated throughout the pandemic to collect and share all publicly available data from states on COVID-19 cases among

children.[2] As of September 16, 2021, 5,518,815 total child COVID-19 cases have been reported in the United States, representing more than 15% of the total U.S. cases.[3] Iowa alone has reported 56,171 child cases of COVID-19.[4] The prevalence of pediatric COVID-19 has skyrocketed since the school year began, with 20% of all child cases since the beginning of the pandemic diagnosed between August 13 and September 16.[5] This surge appears to be due to two principal factors: the resumption of in-person schooling (and particularly schooling in places without masks), and the emergence of the Delta variant, which is more than twice as contagious as previous variants.[6]

As the rate of COVID-19 has soared, so has the number of serious cases; just among the 24 states and 1 city that report child hospitalizations, more than 3,200 children were hospitalized due to COVID-19 between August 13 and September 16, more than 5% of the total child hospitalizations to date.[7] Since the beginning of August, more children have died each week than in all but one previous week of the pandemic.[8]

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[2] *See Children and COVID-19: State-Level Data Report, Summary of Findings*, AAP, https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/children-and-covid-19-state-level-data-report/ (data available as of 9/16/21).

[3] *Id.*

[4] *Children and COVID-19: State Data Report* at Tab. 3A, Children's Hosp. Ass'n & Am. Acad. of Pediatrics (Sept. 16, 2021), https://downloads.aap.org/AAP/PDF/AAP%20and%20CHA%20-%20Children%20and%20COVID-19%20State%20Data%20Report%209.16%20FINAL.pdf.

[5] *Id.* at Fig. 6.

[6] *See Delta Variant: What We Know About the Science*, CDC (Aug. 26, 2021), https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html.

[7] *See Children and COVID-19: State Data Report*, *supra* n. 4, at Appx. Tab. 2B.

[8] *Id.* at Appx. Tab. 2C. The week ending December 3, 2020, is the only previous week in which as many child deaths were reported as even the *lowest* week since the beginning of August. *Id.*

As the hospitalization rate and CDC's changed position reflect, COVID-19 can cause severe symptoms and potentially fatal outcomes even in children. Among other things, COVID-19 infections can produce multisystem inflammatory syndrome (MIS-C), which involves clinically severe levels of fever, inflammation, and dysfunction or shock in multiple organ systems.[9] Several studies have shown that, even when the initial symptoms are mild, COVID-19 can also lead to long-term symptoms in children and adolescents.[10] Potential long-term symptoms include chest pain, cough, and exercise-induced dyspnea to pulmonary emboli; myocarditis (i.e., inflammation of the heart muscle), shortness of breath, arrhythmia, and/or fatigue, and potentially leading to heart failure, myocardial infarction, stroke, or sudden cardiac arrest; persistent loss of the sense of smell (anosmia) or taste (ageusia), which can affect the nutritional status and quality of life of children and adolescents and be particularly disruptive to

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Notably, this was the week after Thanksgiving. This drives home the importance of promptly enjoining the Executive Order, to reduce the rate of COVID-19 in advance of the surge that will likely accompany the upcoming holidays.

[9] *See Multisystem Inflammatory Syndrome in Children (MIS-C) Associated with Coronavirus Disease 19 (COVID-19)*, CDC (May 14, 2020), https://emergency.cdc.gov/han/2020/han00432.asp; *Multisystem Inflammatory Syndrome in Children (MIS-C) Interim Guidance*, AAP (last updated Feb. 10, 2021), https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/multisystem-inflammatory-syndrome-in-children-mis-c-interim-guidance/.

[10] *See, e.g.*, Danilo Buonsenso, et al., *Preliminary evidence on long COVID in children*, Acta Paediatrica (Apr. 9, 2021), https://doi.org/10.1111/apa.15870 (studying 129 children in Italy and reporting that 42.6% experienced at least one symptom more than 60 days after infection); Helen Thomson, *Children with long covid*, 249 New Scientist 10 (2021), https://www.sciencedirect.com/science/article/abs/pii/S0262407921003031?via%3Dihub (U.K. Office of National Statistics estimate that 12.9% of children 2-11 years of age and 14.5% of children 12-16 years of age experienced symptoms 5 weeks after infection).

the feeding behavior of very young children.[11] They can also include neurodevelopmental impairment, including significant acute injuries such as stroke or encephalitis and subtle but persistent injury in cognitive, language, academic, motor, mood, and behavioral domains; cognitive fogginess or fatigue; physical fatigue; and mental or behavioral health impacts such as stress and adjustment disorders.[12]

Moreover, the uncontrolled spread of COVID-19 poses an even greater risk for children with special health needs. Children with certain underlying conditions who contract COVID-19 are more likely to experience severe acute biological effects and to require admission to the hospital or intensive care unit.[13] This includes children with, for example, Down's syndrome, lung conditions, heart conditions, and weakened immune systems—all conditions suffered by one or more of the Plaintiffs.[14]

II. Overview of the AAP's Research Efforts into School Safety During the Pandemic

One of the AAP's chief functions is to provide evidence-based guidance to America's pediatric professionals and public health officials, thereby helping its members and policymakers improve the health of all children. To do so, the AAP issues Policy Statements that report the

[11] *Post-COVID-19 Conditions in Children and Adolescents*, AAP (last updated July 28, 2021), https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/post-covid-19-conditions-in-children-and-adolescents/.

[12] *Id*.

[13] *Caring for Children and Youth with Special Health Needs During the COVID-19 Pandemic*, AAP (last updated Sept. 20, 2021), https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/caring-for-children-and-youth-with-special-health-care-needs-during-the-covid-19-pandemic/.

[14] *People with Certain Medical Conditions*, CDC, (last updated Aug. 20, 2021), https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html.

most up-to-date, evidence-based expert consensus on key issues of pediatric practice and public health. These Policy Statements are written by recognized pediatrician experts who undertake a comprehensive review of the medical literature and available data on the topic at hand. They are then peer-reviewed by additional experts across the AAP and approved by the AAP's executive staff and board of directors.

Since the spring of 2020, as the COVID-19 pandemic began to sweep across the country, the AAP's top focus has been supporting practicing pediatricians and public health policymakers in treating COVID-19 and reducing its spread, particularly among children. The AAP has issued Interim Guidance Statements on several topics related to COVID-19, including guidance on when and how pediatricians should test patients for COVID-19;[15] on providing clinical care to patients with COVID-19;[16] on treating post-COVID conditions;[17] on how to safely provide routine medical care such as check-ups, screenings, laboratory exams, treatment, and immunizations during the COVID-19 pandemic;[18] on supporting the emotional and behavioral health needs of children, adolescents, and families during the COVID-19 pandemic;[19] and—most

[15] *COVID-19 Testing Guidance*, AAP (last updated July 8, 2021), https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/covid-19-testing-guidance/.

[16] *COVID-19 Interim Guidance*, AAP (last updated Aug. 2, 2021), https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/.

[17] *Post-COVID-19 Conditions in Children and Adolescents*, *supra* n. 11.

[18] *Guidance on Providing Pediatric Well-Care During COVID-19*, AAP (last updated Aug. 30, 2021), https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/guidance-on-providing-pediatric-well-care-during-covid-19/.

[19] *Interim Guidance on Supporting the Emotional and Behavioral Health Needs of Children, Adolescents, and Families During the COVID-19 Pandemic*, AAP (last updated July 28, 2021), https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-

relevant to this case—on the use of face masks as an infection control measure;[20] on operating safe schools during the COVID-19 pandemic that foster the overall health of children, adolescents, educators, staff, and communities[21]; and on caring for youth with special health needs during the COVID-19 pandemic.[22] The AAP has repeatedly reviewed and updated these Interim Guidance Statements to ensure that they reflect the best medical understanding and current scientific evidence regarding COVID-19, including its transmission and health effects.

III. Based on Extensive Research, the AAP Strongly Recommends that Schools Maintain Universal Mask Policies in Schools as an Infection Control Measure

Beginning early in the pandemic, members of the AAP began receiving questions from families and school boards about how in-person education could be conducted safely during the pandemic. As pediatrician organizations, the AAP and IA AAP recognize and are seriously concerned about the impact on children of being away from in-person. This can negatively affect children's cognitive, educational, and social development, as well as children's short and long-term mood, behavior, and mental health. At the same time, as discussed above, the COVID-19 pandemic poses serious risks to children. As a result, the AAP decided to develop Interim Guidance for pediatricians and school boards on considerations regarding safe and healthy

guidance/interim-guidance-on-supporting-the-emotional-and-behavioral-health-needs-of-children-adolescents-and-families-during-the-covid-19-pandemic/.

[20] *Face Masks*, AAP (last updated Aug. 11, 2021), https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/cloth-face-coverings/.

[21] *COVID-19 Guidance for Safe Schools*, AAP (last updated July 18, 2021), https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/covid-19-planning-considerations-return-to-in-person-education-in-schools/.

[22] *Caring for Children and Youth with Special Health Needs*, *supra* n. 11.

schooling and recommendations for measures that can decrease the risk and facilitate in-person learning.

Based on the AAP's expert review of the scientific literature and the guidance outlined by the World Health Organization ("WHO"), United Nations Children's Fund ("UNICEF"), and Centers for Disease Control and Prevention ("CDC"), along with our members' collective expertise as pediatricians and researchers, the AAP concluded that "[e]verything possible must be done to keep students in schools in-person." *COVID-19 Guidance for Safe Schools*, *supra* n. 21. This is because "[s]chools and school-supported programs are fundamental to child and adolescent development and well-being and provide our children and adolescents with academic instruction; social and emotional skills, safety, reliable nutrition, physical/occupational/speech therapy, mental health services, health services, and opportunities for physical activity, among other benefits." *Id.* By contrast, "[r]emote learning highlighted inequities in education, was detrimental to the educational attainment of students of all ages, and exacerbated the mental health crisis among children and adolescents." *Id.*

The initial AAP Interim Guidance, developed in the spring of 2020, was drafted and reviewed by a number of pediatricians with expertise in a wide variety of disciplines. The drafters reviewed dozens of articles and available data to determine whether and how children could safely attend school during the pandemic.

The result was the AAP Interim Guidances on Face Masks,[23] Safe Schools,[24] and Children with Special Health Needs.[25] These statements were first issued in the spring of 2020

[23] *Face Masks*, *supra* n. 20.

[24] *COVID-19 Guidance for Safe Schools*, *supra* n. 21.

[25] *Caring for Children and Youth with Special Health Needs*, *supra* n. 11.

and have been continually reviewed and updated since that time. By this point, the AAP's experts have reviewed hundreds of articles related to the efficacy and safety of masks, as well as their effects (or lack thereof) on the cognitive, social, and psychological development of children. The following discussion is based principally on the current (summer 2021) iterations of these interim guidance documents.

Based on our review of the medical literature, the AAP has determined that "at this point in the pandemic, given what we know now about low rates of in-school transmission *when proper prevention measures are used*, together with the availability of effective vaccines for those age 12 years and up, that the benefits of in-person school outweigh the risks in almost all circumstances." *COVID-19 Guidance for Safe Schools*, *supra* n. 21 (emphasis added). Among the prevention measures we recommend (such as immunization of all eligible individuals and adequate and timely COVID-19 testing), one of the most important is that "**[a]ll students older than 2 years and all school staff should wear face masks at school (unless medical or developmental conditions prohibit use)**." *Id.* (emphasis added).

The AAP's strong recommendation of universal masking for students, teachers, and support staff in school has remained consistent from the beginning—because masks are a safe, effective, and critical infection control measure. This conclusion has been consistently reinforced by all relevant data and credible research regarding the transmission and health risks of COVID-19 and the effect of wearing masks on children's education, health, and development.

After significant analysis, including analysis of the emerging Delta variant, the AAP reaffirmed its recommendation of universal masking in school settings on July 19, 2021. Eight

days later, on July 27, 2021, the CDC followed suit, recommending "universal indoor masking for all teachers, staff, students, and visitors to schools, regardless of vaccination status."[26]

With respect to children with special health needs, the recommendations with respect to masks are the same.[27] Schools should "maintain universal masking" and educate teachers and staff in proper mask use.[28] Universal masking reduces community transmission, thus reducing the likelihood that an infected person will come in contact with a child with special health needs, and reduces the likelihood of transmission to the child if an infected person does come into contact with an especially vulnerable child.[29] These steps should be universal and are separate and apart from any Individual Education Plans that may be necessary for individual children.[30] In other words, masking should apply to everyone at the school, not solely to a particular vulnerable child. (Of course, schools should *also* continue to work with parents as necessary to update Individual Education Plans.)

There are several reasons for our (and the CDC's) recommendation of universal masking in school. The most important, the efficacy of masks in reducing transmission, is discussed in the next section. In addition:

a. a significant portion of the student population is not eligible for vaccination;

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[26] *Interim Public Health Recommendations for Fully Vaccinated People—Summary of Recent Changes*, CDC (July 28, 2021), https://www.cdc.gov/coronavirus/2019-ncov/vaccines/fully-vaccinated-guidance.html.

[27] *Caring for Children and Youth with Special Health Needs*, *supra* n. 11.

[28] *Id*.

[29] *Id*.

[30] *Id*.

b. the need to protect unvaccinated students from COVID-19 and to reduce transmission;

c. the lack of systems to monitor vaccine status among students, teachers and staff;

d. the potential difficulty in monitoring or enforcing mask policies for those who are not vaccinated; in the absence of schools being able to conduct this monitoring, universal masking is the best and most effective strategy to create consistent messages, expectations, enforcement, and compliance without the added burden of needing to monitor vaccination status;

e. the possibility of low vaccination uptake within the surrounding school community; and

f. the continued concerns for variants that are more easily spread among children, adolescents, and adults.

COVID-19 Guidance for Safe Schools, *supra* n. 21.

IV. Enjoining HF 847, Which Bars Schools from Implementing Universal Mask Policies, Is in the Public Interest.

The State, relying on parent declarations that purport to offer medical opinions, suggests that other accommodations would sufficiently protect Plaintiffs, that universal mask policies are harmful, and that the status quo of barring schools from imposing universal mask policies is in the public interest. Def. Resistance to P.I. Mot. at 14, 15, 25. Quite to the contrary, the AAP's research indicates that the balance of equities and public interest weigh in favor of enjoining HF 847.

First, the research literature reviewed by the AAP has confirmed that masks are an effective method to measurably reduce the transmission of COVID-19. As the CDC has explained, masks "reduce the emission of virus-laden droplets . . . , which is especially relevant for asymptomatic or presymptomatic infected wearers who feel well and may be unaware of their infectiousness to others, and who are estimated to account for more than 50% of transmissions." Cloth masks "not only effectively block most large droplets (i.e., 20-30 microns and larger) but they can also block the exhalation of fine droplets." As a result, "[m]ulti-layer cloth masks can

both block up to 50-70% of these fine droplets and particles," with "[u]pwards of 80% blockage recorded in some studies. To a slightly lesser extent, masks also "help reduce inhalation of these droplets by the wearer"; multi-layer cloth masks can filter out "nearly 50% of fine particles less than 1 micron."[31]

Second, as the ABC Science Collaborative, a 13-state initiative coordinated by the Duke Clinical Research Institute at the Duke University School of Medicine, summed it up, "[p]roper masking is *the most effective* mitigation strategy to prevent COVID-19 transmission in schools when vaccination is unavailable or there are insufficient levels of vaccination among students and staff."[32] Numerous studies have shown that increasing the rate of mask-wearing, including through universal mask policies in particular, significantly reduces the spread of COVID-19.[33] In

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[31] *Science Brief: Community Use of Cloth Masks to Control the Spread of SARS-CoV-2*, CDC (May 7, 2021), https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/masking-science-sars-cov2.html (citations omitted).

[32] ABC Science Collaborative, *The ABCs of North Carolina's Plan*, https://abcsciencecollaborative.org/the-abcs-of-north-carolinas-plan-a/ (last visited Sept. 1, 2021); *see also* ABC Science Collaborative, *Final Report for NC School Districts and Charters in Plan A*, at 3 (June 30, 2021) , *available at* https://abcsciencecollaborative.org/wp-content/uploads/2021/06/ABCs-Final-Report-June-2021.06-esig-DB-KZ-6-29-21.pdf (emphasis added).

[33] *See, e.g.*, Jeremy Howard, et al., *An Evidence Review of Face Masks Against COVID-19*, 118 Proc. of the Nat'l Acad. of Servs. e2014564118 (Jan. 26, 2021), https://www.pnas.org/content/118/4/e2014564118; John T. Brooks & Jay C. Butler, *Effectiveness of Mask Wearing to Control Community Spread of SARS-CoV-2*, 325 J. of Am. Med. Ass'n 998 (Feb 10, 2021), https://jamanetwork.com/journals/jama/fullarticle/2776536; Heesoo Joo, et al., *Decline in COVID-19 Hospitalization Growth Rates Associated with Statewide Mask Mandates—10 States, March–October 2020*. 70 Morbidity & Mortality Weekly Rep. 212 (Feb. 12, 2021), https://www.cdc.gov/mmwr/volumes/70/wr/mm7006e2.htm; Derek K. Chu, et al., *Physical Distancing, Face Masks, and Eye Protection to Prevent Person-to-Person Transmission of SARS-CoV-2 and COVID-19: A Systematic Review and Meta-Analysis*, 395 Lancet 1973 (June 1, 2020), https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31142-9/fulltext; Christopher T. Leffler, et al., *Association of Country-wide Coronavirus Mortality with Demographics, Testing, Lockdowns, and Public Wearing of Masks*, 103 Am. J. Tropical Med. Hygiene 2400 (Oct. 26, 2020),

particular, studies have shown that masking and similar mitigation measures can limit transmission in schools.[34] And just this past Friday, the CDC released three new studies conducted during this school year, all of which found that "schools without a universal masking

https://pubmed.ncbi.nlm.nih.gov/33124541/; Miriam E. Van Dyke, et al., *Trends in County-Level COVID-19 Incidence in Counties With and Without a Mask Mandate—Kansas, June 1-August 23, 2020*. 69 Morbidity & Mortality Weekly Rep. 1777 (Nov. 27, 2020), https://www.cdc.gov/mmwr/volumes/69/wr/mm6947e2.htm; Wei Lyu & George L. Wehby, *Community Use of Face Masks and COVID-19: Evidence from a Natural Experiment of State Mandates in the US*, 39 Health Aff. 1419 (June 16, 2020), https://www.healthaffairs.org/doi/10.1377/hlthaff.2020.00818.

[34] *See, e.g.*, Patrick Dawson, et al., *Pilot Investigation of SARS-CoV-2 Secondary Transmission in Kindergarten Through Grade 12 Schools Implementing Mitigation Strategies—St. Louis County and City of Springield, Missouri, December 2020*, 70 Morbidity & Mortality Weekly Rep. 449 (Mar. 26, 2021), https://www.cdc.gov/mmwr/volumes/70/wr/mm7012e4.htm?s_cid=mm7012e4_w; Darria L. Gillespie, et al., *The Experience of 2 Independent Schools With In-Person Learning During the COVID-19 Pandemic*, 91 J. Sch. Health 347 (Mar. 25, 2021), https://onlinelibrary.wiley.com/doi/10.1111/josh.13008; Rebecca B. Hershow, et al., *Low SARS-CoV-2 Transmission in Elementary Schools - Salt Lake County, Utah, December 3, 2020-January 31, 2021*, 70 Morbidity & Mortality Weekly Rep. 442 (Mar. 26, 2021), https://www.cdc.gov/mmwr/volumes/70/wr/mm7012e3.htm; Amy Falk, et al., *COVID-19 Cases and Transmission in 17 K-12 Schools - Wood County, Wisconsin, August 31-November 29, 2020*, 70 Morbidity & Mortality Weekly Rep. 136 (Jan. 29, 2021), https://www.cdc.gov/mmwr/volumes/70/wr/mm7004e3.htm; Fiona Russell et al., *COVID-19 in Victorian Schools: An Analysis of Child-Care and School Outbreak Data and Evidence-Based Recommendations for Opening Schools and Keeping Them Open*, Murdoch Children's Rsch. Inst. & The Univ. of Melb. (Nov. 9, 2020), *available at* https://www.mcri.edu.au/sites/default/files/media/documents/covid-19_in_victorian_schools_report.pdf.

policy in place were more likely to have COVID-19 outbreaks."[35] The CDC found that pediatric COVID-19 cases increase *twice* as quickly in schools lacking universal mask policies.[36]

Indeed, masking is so effective that courts have found that it may be *required* in schools under the federal Americans with Disabilities Act and Rehabilitation Act. *See, e.g.*, *S.B. v. Lee*, No. 21-CV-00317, 2021 WL 4346232 (E.D. Tenn. Sept. 24, 2021). Courts have recognized that indoor mask-wearing is "*the* most important of the CDC's guidelines," and "the primary way to mitigate the spread of COVID-19." *Id.* at *15 (internal quotation omitted). Even before the latest CDC studies, "the evidence show[ed] that the absence of a mask mandate is fueling infections . . . with frightening celerity." *Id.* at *16. There is "only one conclusion: . . . among the unvaccinated, [the Delta variant] is untamable without community-wide masking inside schools." *Id.* at *17.

Third, masks are safe. The State argues that masks policies are harmful to respiratory function, to children's social or language skills, for children with anxiety, or for children with sensory disorders. Def. Resistance to P.I. Mot. at 14. As the AAP's Interim Guidance explains,

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[35] *Studies Show More COVID-19 Cases in Areas Without School Masking Policies*, CDC (Sept. 24, 2021), https://www.cdc.gov/media/releases/2021/p0924-school-masking.html; *see* Megan Jehn, et al., *Association Between K–12 School Mask Policies and School-Associated COVID-19 Outbreaks—Maricopa and Pima Counties, Arizona, July–August 2021*, 70 Morbidity & Mortality Weekly Rep. (Early Release) (Sept. 24, 2021), https://www.cdc.gov/mmwr/volumes/70/wr/pdfs/mm7039e1-H.pdf; Samantha E. Budzyn, et al., *Pediatric COVID-19 Cases in Counties With and Without School Mask Requirements—United States, July 1–September 4, 2021*, 70 Morbidity & Mortality Weekly Rep. (Early Release) (Sept. 24, 2021), https://www.cdc.gov/mmwr/volumes/70/wr/pdfs/mm7039e3-H.pdf; Sharyn E. Parks, et al., *COVID-19–Related School Closures and Learning Modality Changes—United States, August 1–September 17, 2021*, 70 Morbidity & Mortality Weekly Rep. (Early Release) (Sept. 24, 2021), https://www.cdc.gov/mmwr/volumes/70/wr/pdfs/mm7039e2-H.pdf.

[36] Press Release, *Studies Show More COVID-19 Cases in Areas Without School Masking Policies*, CDC (Sept. 24, 2021), https://www.cdc.gov/media/releases/2021/p0924-school-masking.html.

it is appropriate to make exceptions to mask requirements where "medical or developmental conditions prohibit use." *Face Masks*, *supra* n. 20. However, "[f]ace masks can be safely worn by all children 2 years of age and older, including the vast majority of children with underlying health conditions, with rare exception." *Id*. To the extent the State claims that masks policies are harmful to respiratory function, to children's social or language skills, or for children with anxiety, Def. Resistance to P.I. Mot. at 14, these claims lack any scientific basis.[37]

Respiratory function: Masking has no significant effect on respiratory function in the vast majority of cases. Cloth and surgical masks are gas-permeable, which means that carbon dioxide can pass out of the mask and oxygen pass in, without obstruction. Masks do not present a risk of hypercapnia (excess $CO_{2)}$ or hypoxemia (inadequate oxygen saturation), even among people with lung disease, as proven by studies using pulse oximetry to test changes in end-tidal CO_2 and oxygen saturation.[38] Even among infants and young children, the use of facial masks is not associated in significant changes in respiratory function.[39]

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[37] The State also claims that children with severe sensory processing issues may be unable to wear a mask. Def. Resistance to P.I. Mot. at 14. While the AAP and IA AAP cannot comment on a particular child, it is feasible that a severely autistic child may be able to establish a medical reason for an exemption from a universal mask policy.

[38] *See, e.g.*, Rajesh Samannan, et al., *Effect of Face Masks on Gas Exchange in Healthy Persons and Patients with Chronic Obstructive Pulmonary Disease*, 18 Annals of Am. Thoracic Soc'y 539 (2021), https://www.atsjournals.org/doi/full/10.1513/AnnalsATS.202007-812RL; Steven L. Shein, et al., *The effects of wearing facemasks on oxygenation and ventilation at rest and during physical activity*, PLoS One (Feb. 24, 2021), https://pubmed.ncbi.nlm.nih.gov/33626065/ ("The risk of pathologic gas exchange impairment with cloth masks and surgical masks is near-zero in the general adult population.").

[39] *See, e.g.*, Ricardo Lubrano, et al., *Assessment of Respiratory Function in Infants and Young Children Wearing Face Masks During the COVID-19 Pandemic*, JAMA Network Open (Mar. 2, 2021), https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2776928.

Claims that masks obstruct breathing are also belied by the decades-long history of mask usage in surgical settings, for immunocompromised individuals (including children) such as chemotherapy patients, and in countries where masks have long been used to prevent spread of illness. For example, surgeons and other medical professionals may wear surgical masks for 6 to 8 hours at a time while performing involved surgery. If masks posed a risk of hypercapnia, hypoxemia, or any other harm, it would have been discovered long ago due to surgeons and attendants fainting or hospitals in other countries receiving adult or pediatric patients who were harmed by mask wearing.

Cognitive, social, and speech development: There is "no known evidence that use of face masks interferes with speech or language development . . . ."[40] Not being able to see part of a person's face is not an impediment to social and speech development—as the experience of children who are blind from birth confirms. "[V]isually impaired children develop speech and language skills at the same rate as their peers."[41] Indeed, being unable to see speakers' mouths for a portion of the day may help children use other clues to understand and learn language and non-verbal communication, such as gestures, changes in tone of voice, and the like.[42]

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[40] *Do Masks Delay Speech and Language Development?*, AAP (last updated Aug. 26, 2021), https://healthychildren.org/English/health-issues/conditions/COVID-19/Pages/Do-face-masks-interfere-with-language-development.aspx.

[41] *Id.*

[42] *Id.*; *see also* Ashley L. Ruba & Seth D. Pollak, *Children's emotion inferences from masked faces: Implications for social interactions during COVID-19*, PLoS One (Dec. 23, 2020), https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0243708 (finding that "while there may be some challenges for children incurred by others wearing masks, in combination with other contextual cues, masks are unlikely to dramatically impair children's social interactions in their everyday lives").

Crucially, the AAP does not recommend that children wear masks 24 hours a day, or that their parents do so. In the home, children's experiences will presumably be largely or entirely maskless, providing ample opportunity for interacting with people without masks.

Some children with preexisting developmental disabilities may have difficulty wearing masks. In many cases, this can be overcome with coaching,[43] although in some cases there could be particular aspects of a child's developmental needs that counsel against using masks in certain situations. Here again, the AAP's guidance recommends allowing for accommodations when necessary.[44]

Anxiety: Mask-wearing is not linked to emotional or psychological harm, particularly when caregivers promote positive associations around mask-wearing.[45] While children can develop secondary anxieties about wearing a mask, this is no different from the possibility of developing secondary anxieties about eating, attending school, or any other activity. The risk of

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[43] *See, e.g.*, Maithri Sivaraman, et al., *Telehealth mask wearing training for children with autism during the COVID-19 pandemic*, 54 J. Applied Behav. Analysis 70 (Nov. 25, 2020), https://pubmed.ncbi.nlm.nih.gov/33241588/; Madelynn A. Lillie, et al., *Increasing passive compliance to wearing a facemask in children with autism spectrum disorder*, 54 J. Applied Behav. Analysis 582 (Mar. 19, 2021), https://pubmed.ncbi.nlm.nih.gov/33740281/; Mary Halbur, et al., *Tolerance of face coverings for children with autism spectrum disorder*, 54 J. Applied Behav. Analysis 600 (Mar. 26, 2021), https://pubmed.ncbi.nlm.nih.gov/33772777/.

[44] *See* Face Masks, *supra* n. 20.

[45] *Interim Guidance on Supporting the Emotional and Behavioral Health Needs of Children, Adolescents, and Families During the COVID-19 Pandemic*, supra n. 19; *Face Masks*, *supra* n. 20 (providing recommendations for "help[ing] my child get used to wearing a mask"); *Supporting your child's mental health during COVID-19 school returns*, UNICEF (Aug. 28, 2020), https://www.unicef.org/coronavirus/supporting-your-childs-mental-health-during-covid-19-school-return ("Approach this conversation with empathy, saying that you know she is feeling anxious about coronavirus, but that it's healthy to talk about our worries and emotions. Children may also get upset or frustrated if they are finding it hard to wear masks, especially when running or playing. You can reassure your children that lots of adults are working hard to help keep your family safe, but emphasize that it's important we all follow the recommended measures to take care of more vulnerable members of our community.").

developing secondary anxiety or disordered behavior related to masking may be especially high when parents or community members perpetuate false claims that masks are harmful. But there is nothing intrinsic about mask-wearing that makes it particularly harmful, whether physically, socially, or emotionally.

In sum, whatever fears some may have about mask wearing, universal mask policies are the most effective and safe way to reduce the risk that children, including Plaintiffs, will acquire a grave and dangerous illness at school. HF 847 bans such policies. The balance of equities thus weighs heavily in favor of the requested injunction.

CONCLUSION

For these reasons and those stated in Plaintiffs' filings, the public interest would be served by enjoining the HF 847.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that on September 28, 2021, the above brief was filed using the court's CM/ECF system, which will notify all registered counsel.

Dated: September 28, 2021

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