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ALLIANCE OF LOS ANGELES COUNTY PARENTS

SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES

ALLIANCE OF LOS ANGELES COUNTY PARENTS, an unincorporated association

Petitioner and Plaintiff,

vs.

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC HEALTH; MUNTU DAVIS, in his official capacity as Health Officer for the County of Los Angeles; BARBARA FERRER, in her official capacity as Director of the County of Los Angeles Department of Public Health; and DOES 1 through 25, inclusive,

Respondents and Defendants.

Case No.: 22STCP02772

VERIFIED PETITION FOR WRIT OF MANDATE (CCP 1085); COMPLAINT FOR VIOLATION OF EQUAL PROTECTION CLAUSE, 42 U.S.C. 1983, DECLARATORY AND INJUNCTIVE RELIEF; DECLARATIONS AND EXHIBITS IN SUPPORT THEREOF

INTRODUCTION

"It is just not the same pandemic as it was, despite all the media hype to the contrary." – Brad Spellberg, M.D

1. On July 13, 2022, Chief Medical Officer Dr. Brad Spellberg, Chief Executive Officer Jorge Orozco, and Epidemiologist and Infectious Disease Division Service Chief Dr. Paul Holtom of the Los Angeles County + University of Southern California (LAC+USC) Medical Center held an internal Town Hall meeting, a recording of which was posted to Youtube. (Exh. A).

2. During the Town Hall, Los Angeles County's ("County") top physicians expressed calm and reassuring observations of a decrease in severity of COVID. Among the statements made by the physicians were the following:

- "[W]e're just seeing nobody with severe COVID disease." – Dr. Holtom.
- "[W]e have no one in the hospital who had pulmonary disease due to COVID. Nobody in the hospital." – Dr. Holtom.
- "[C]ertainly there is no reason from a hospitalization due to COVID perspective, to be worried at this point." – Dr. Holtom.
- "We're seeing a lot of people with mild disease in urgent care or ED who go home and do not get admitted." – Dr. Spellberg.
- "A lot of people have bad colds, is what we're seeing." – Dr. Spellberg.
- "It is just not the same pandemic as it was, despite all the media hype to the contrary." – Dr. Spellberg. (Exh. A).

3. On that same day, County Public Health Director Barbara Ferrer announced that she intends to implement a new countywide mask mandate due to the County being in the "High" tier of community COVID risk.

4. During a presentation to the Board of Supervisors on July 26, 2022, Ms. Ferrer rejected the idea of revising the hospitalization metrics used to classify the County in the "High" tier and maintained these metrics will still be used to determine whether a mask mandate will be implemented this week. These metrics will therefore continue to be used for this and all future surges of COVID, which as an endemic virus are likely to occur during every cold and flu season and during the now well-observed annual summer surges.

5. The incongruity between the County's decision to impose such a dramatic restriction on its residents and the remarks of the LAC+USC physicians explaining the waning risks of COVID

and absence of high hospitalization due to COVID demonstrates decision-making by County Public Health that is beyond the bounds of reason, arbitrary, capricious, and entirely lacking in evidentiary support.

6. With the imminent possibility of masks being forced on children for a fourth consecutive school year, the idea of ignoring the harms from masking students as short-term, one-time interventions must be dismissed. Instead, the costs of masking students for the past two years – and for years on end – must be factored in. The imposition of a new mandate will irreparably harm children in Los Angeles County, and the Alliance seeks to enjoin its enforcement through this action.

PARTIES

7. Petitioner and Plaintiff ALLIANCE OF LOS ANGELES COUNTY PARENTS ("Petitioner" or "Alliance") is an unincorporated association composed of and supported by parents of children in Los Angeles County who attend childcare programs, K-12 schools, and/or play youth sports in the County. Petitioner Alliance is a community group that was organized for the purpose of representing the interests of Los Angeles County children subjected to harsh and restrictive mandates by local education agencies, the County of Los Angeles ("County"), and the State of California ("State"). One of its goals is to advocate for fair, humane, and equal treatment of all children within the County and to remove all unnecessary, harmful, and unjustified restrictions against children and provide children with a full return to normalcy. Members of Alliance reside within the County, own real property within the County, have children who attend childcare or K-12 schools in the County, and/or play youth sports in the County.

8. Since a matter of public right is at stake, Petitioner need not show any legal or special interest, as Petitioner is "interested as a citizen in having the laws executed and the duty in question enforced." *Save the Plastic Bag Coalition v. City of Manhattan Beach* (2011) 52 Cal.4th 155, 166. This public right exception "promotes the policy of guaranteeing citizens the opportunity to ensure that no governmental body impairs or defeats the purpose of legislation establishing a public right." *Green v. Obledo*, (1981) 29 Cal.3d 126, 145.

9. Defendant and Respondent Los Angeles County Department of Public Health ("DPH") is an agency of the County of Los Angeles.

10. Defendant and Respondent Muntu Davis is the Health Officer of the DPH and is sued in his official capacity as such.

11. Defendant and Respondent Barbara Ferrer is Director of the DPH and is sued in her official capacity as such.

JURISDICTION AND VENUE

12. This Court has jurisdiction over this action pursuant to Section 1085 of the Code of Civil Procedure.

13. Venue for this action properly lies in the Los Angeles County Superior Court because Respondents are located in the County and the challenged orders impact residents, students, and athletes in the County.

14. No adequate administrative remedy exists, and any attempt to exhaust such administrative remedy by Petitioner would be futile. Notwithstanding the absence of available administrative remedies, Petitioner delivered a demand letter to Respondents on or about July 20, 2022 to provide an opportunity to Respondents to avoid litigation and reach a settlement. No such resolution has been reached as of the time of filing.

STATEMENT OF FACTS

15. Despite being among the lowest-risk demographic for serious illness and death from COVID-19[1], children in the County have been subjected to some of the most restrictive mandates in the country.

16. Since March 2020, DPH has issued a multitude of health orders related to COVID-19 under the authority of California Health and Safety Code sections 101040, 101085, and 120175.

17. Petitioner members suffered tremendously under previous health orders issued by DPH, which forced children aged two and older to wear masks in school, childcare, and youth sports, among other things for over two years. Petitioner members suffered speech delays,

[1] *See, e.g.,* https://www.wsj.com/articles/in-children-risk-of-covid-19-death-or-serious-illness-remain-extremely-low-new-studies-find-11625785260

developmental delays, social isolation, depression, anxiety, learning loss, facial rashes, heat-related illnesses, migraines, and those who could not tolerate masks were forced out of their schools and. social communities. DPH and Los Angeles County refuse to acknowledge or even consider the potential harms from masking, with Supervisor Sheila Kuehl recently labeling the parents of these children harmed by masking as "snowflake weepies" and claiming it is more oppressive to wear shoes and shirts.[2]

18. On or about July 15, 2022, DPH Director Barbara Ferrer announced that the County had entered the Centers for Disease Control and Prevention's ("CDC") "High" tier of community COVID risk, and that a mask mandate ("New Mandate") would be returning. (Exh. B).

19. The County, however, is not actually in the "High" tier based on CDC standards. (Declaration of Dr. Jeffrey Klausner ("Klausner Dec."), Klausner Dec., ¶¶ 7-14). DPH is using erroneous hospitalization metrics. (Klausner Dec., ¶¶ 7-14).

20. DPH is erroneously using the number of hospitalized patients who *incidentally tested positive for COVID*, rather than the number of patients *hospitalized due to COVID*. (Klausner Dec., ¶¶ 7-14).

21. The CDC classifies COVID risk in each county with a metric called "Community Levels," which incorporates both case counts and hospitalization rates.

22. The Community Levels system was implemented to ensure that public health recommendations or mandates are not triggered by widespread mild illness, replacing an earlier system that only looked at positive test counts.

23. To enter the "High" risk Community Level, a county must have more than 10 new COVID hospitalizations per 100,000 people over a seven-day period. CDC data show the County at 11 per 100,000 as of approximately July 20, 2022, so by that measure the County is designated "High."

24. Beneath those numbers, though, is a critical error: most of those "COVID hospitalizations" are not actually caused by COVID. (Klausner Dec., ¶ 11, Exh. G).

[2] Los Angeles County Board of Supervisors Meeting, July 26, 2022, available at https://youtu.be/jJZ0n2f_Uc8.

25. The numbers represent people coming to the hospital for unrelated reasons who happen to test positive at the time. DPH's own data show that since March, only 40% of COVID-positive hospitalizations in the county have actually been caused by COVID. (Klausner Dec., ¶ 12; Exh. C).

26. If hospitalizations due to COVID, rather than hospitalizations with incidental COVID positive tests, are counted to accurately reflect the virus' impact on hospitalizations, the County easily drops out of the "High" tier. (Klausner Dec., ¶ 13).

27. Even if the County were truly in the "High" tier, however, the New Mandate would have no impact on the spread of COVID or the number of hospitalizations due to COVID in the County (Klausner Dec., ¶¶ 18-25; Declaration of Dr. J. Thomas Megerian ("Megerian Dec."), ¶¶ 6,7), and would irreparably and disproportionately harm Petitioner members. (Megerian Dec., ¶¶ 8-14; Declaration of Kelly Stuart ("Stuart Dec."), ¶¶ 5-16; Declaration of L.M. ("L.M. Dec."), ¶¶ 7-13; Declaration of G.K. ("G.K. Dec."), ¶¶ 6-11; Declaration of E.S. ("E.S. Dec."), ¶¶ 7-11).

28. DPH abused its discretion by failing to utilize accurate hospitalization data to calculate community risk levels, and failing entirely to consider evidence from the County's top medical doctors that COVID is no longer causing serious disease and there is "no reason from a hospitalization due to COVID perspective to be worried at this point." (Exh. A).

29. Furthermore, DPH abused its discretion by continuing to implement a mask mandate which has not had any noticeable effect in reducing cases in comparison to neighboring areas without mask mandates,[3] which has clearly failed to prevent Los Angeles County from experiencing one of the highest case rates in the United States.[4]

30. Finally, DPH abused its discretion by only requiring the use of ineffective cloth or surgical masks which DPH knows are not designed or able to block the fine aerosols which are primarily responsible for viral transmission.

[3] https://www.sfgate.com/coronavirus/article/California-mask-mandates-delta-COVID-19-data-works-16502191.php
[4] https://www.nytimes.com/interactive/2021/us/covid-cases.html

31. DPH intends to announce whether these erroneous conditions will justify issuing an ineffective mask mandate by Thursday, July 28, 2022, and implement the mask mandate on July 29, 2022.

MASK MANDATES IN SCHOOLS HAVE NO STATISTICAL IMPACT ON COMMUNITY SPREAD

32. Data from more than 1.5 million students and staff at K-12 schools – before adult vaccination – proves that mask mandates do not impact student or teacher infection rates when adjusted for spread within the community.[5]

33. Based on a CDC report of data from November and December 2020 – prior to vaccine availability and during higher case prevalence – "lower incidence in schools that required mask use among students was not statistically significant compared with schools where mask use was optional."[6]

34. Considering vaccination, disease prevalence, hospitalization and death rates, there is insufficient evidence that continued mask mandates for California's schoolchildren would provide a benefit that outweighs the potential harm.[7] The CDC estimates 75% of children have already been infected.[8]

35. Additionally, a report in the New England Journal of Medicine summarizing data from Sweden in Spring of 2020 – when schools for children ages 16 and under remained open without requiring masks and vaccinations were not yet available – only saw 15 children hospitalized in the ICU out of 1,951,905 children (0.77 per 100,000) with zero deaths, and only 30 teachers were hospitalized in the ICU (19 per 100,000) – a rate similar to other occupations.[9]

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[5] 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, medRxiv 2021.05.19.21257467; doi: https://doi.org/10.1101/2021.05.19.21257467

[6] https://www.cdc.gov/mmwr/volumes/70/wr/mm7021e1.htm

[7] https://ackerman-jill99 medium.com/save-our-schools-a-health-initiative-830dcd02863, citing https://www.cdc.gov/mmwr/volumes/70/wr/mm7021e1.htm

[8] https://publications.aap.org/aapnews/news/20170

[9] https://www.nejm.org/doi/full/10.1056/NEJMc2026670?query=TOC&fbclid=IwAR3fY8mbKoRontMlt-PNhZ7QK1h0SXxJ6Hoq7AOe4wn2TTIK6OPHApy7ISA

36. In Florida during the fall of 2020, 45% of the state's 2.8 million students received in-person instruction. Only 2% fell ill with COVID-19. Of those, only 0.5% required hospitalization. None died.

RANDOM CONTROLLED TRIAL STUDIES HAVE NOT DEMONSTRATED ANY CLEAR BENEFIT OF MASKING CHILDREN

37. 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 consistently find no effect from masks.

38. A CDC study found a lower COVID incidence in schools that required mask use among teachers and staff, but found the benefit of masking students was "not statistically significant."[10]

39. An evaluation by the United Kingdom's Health Security Agency and Department for Education (where children under 11 were not masked) also found that the impact of masking students was not statistically significant.[11] The study also found that 80% of students said wearing a face covering made communication more difficult, and 55% said it made learning more difficult.

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

41. A study entitled "COVID-19 Mitigation Practices and COVID-19 Rates in Schools: Report on Data from Florida, New York and Massachusetts" concluded, "[w]e do not find any correlations with mask mandates."[12]

42. A study entitled "Reported COVID-19 Incidence in Wisconsin High School Athletes in Fall 2020" concluded, "[t]here were no significant associations between COVID-19 incidence and face mask use."[13]

43. A study entitled "Age-dependency of the Propagation Rate of Coronavirus Disease 2019 Inside School Bubble Groups in Catalonia, Spain" concluded, "In-school COVID transmission

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[10] https://www.cdc.gov/mmwr/volumes/70/wr/pdfs/mm7021e1-H.pdf

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

[12] https://www.medrxiv.org/content/10.1101/2021.05.19.21257467v1.full

[13] https://meridian.allenpress.com/jat/article/doi/10.4085/1062-6050-0185.21/466422/Reported-COVID-19-Incidence-in-Wisconsin-High

was the same in 4-5 year olds where masking was not used and in 6-7 year olds where masking was required."[14]

44. The case for new mandates is further undermined by the growing scientific literature showing mask mandates to be ineffective. In the pandemic turmoil of 2020, most studies did not have the ability to compare COVID rates with and without masks in groups that were otherwise carefully matched.[15] (Klausner Dec., ¶ 18).

45. Claims of mask efficacy were thus based on studies with no or improper control groups. Other studies have relied on phone surveys[16] or mathematical models rather than direct measurements of infection or transmission, or used contact tracing protocols that excluded counting masked transmission.[17] (Klausner Dec., ¶ 19).

46. Now in mid-2022 we have much better data. Exhaustive tracking of in-school COVID spread was indistinguishable with and without student mask use in studies in Spain, a conclusion repeated in two separate COVID waves.[18] (Klausner Dec., ¶ 20, Exh. H).

47. Studies of student masking with control groups in Georgia, North Dakota, Finland and the UK have all found the same lack of any clear benefit.[19] (Klausner Dec., ¶ 21, Exhs. I, J).

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[14] https://journals.lww.com/pidj/Fulltext/2021/11000/Age_dependency_of_the_Propagation_Rate_of.2.aspx

[15] See, for example, "COMMENTARY: What can masks do? Part 2: What makes for a good mask study — and why most fail," October 15, 2021, Center for Infectious Disease Research and Policy, available at https://www.cidrap.umn.edu/news-perspective/2021/10/commentary-what-can-masks-do-part-2-what-makes-good-mask-study-and-why-most.

[16] For example, *see* "Effectiveness of Face Mask or Respirator Use in Indoor Public Settings for Prevention of SARS-CoV-2 Infection — California, February–December 2021," February 11, 2022, CDC Morbidity and Mortality Weekly Report (MMWR)

[17] *See*, "Contact Tracing Policy for Masked Students May be an Important Confounding Variable," June 29, 2022, Pediatrics, available at https://publications.aap.org/pediatrics/article-abstract/150/1/e2022057636A/188362/Contact-Tracing-Policy-for-Masked-Students-May-be?redirectedFrom=fulltext?autologincheck=redirected?autologincheck=redirected.

[18] *See* "Unravelling the Role of the Mandatory Use of Face Covering Masks for the Control of SARS-CoV-2 in Schools: A Quasi-Experimental Study Nested in a Population-Based Cohort in Catalonia (Spain)," March 7, 2022, SSRN, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4046809.

[19] *See,* "Association between School Mask Mandates and SARS-CoV-2 Student Infections: Evidence from a Natural Experiment of Neighboring K-12 Districts in North Dakota," July 1, 2022, Research Square, available at https://www.researchsquare.com/article/rs-1773983/v1*; See also* "Use of face masks did not impact COVID-19 incidence among 10–12-year-olds in Finland," April 7, 2022, Medrxiv, available at https://www.medrxiv.org/content/10.1101/2022.04.04.22272833v1.

48. One randomized controlled trial showed no significant benefit to the mask wearer.[20] (Klausner Dec., ¶ 22, Exh. K).

49. When researchers repeated a CDC study showing a mask benefit using identical methods but a larger and better dataset, the benefit of masking disappeared. (Klausner Dec., ¶ 23).

50. Influenza transmits by the same aerosol route as COVID, so we must add the results of ten randomized controlled trials on masking and influenza, which the CDC reviewed and "found no significant effect of face masks on transmission."[21] (Klausner Dec., ¶ 24).

51. White House COVID-19 Response Coordinator Ashish Jha found no difference in Omicron infection rates between mask-mandated California and mask-mandate-free Florida, and Alameda County's recent mask mandate produced no difference in COVID rates versus neighboring counties.[22] (Klausner Dec., ¶ 25).

52. Doctors and scientists agree the data relied upon by County Department of Public Health and Ferrer are not accurate. Accordingly, such data should not be used to justify a new public health mandate – especially when there is no evidence to show that such a mandate will be ineffective. (Klausner Dec., ¶ 26).

CHILDREN HAVE ALWAYS BEEN AND REMAIN AT SIGNFICANTLY LOWER RISK OF SERIOUS ILLNESS AND DEATH FROM COVID-19 THAN ADULTS

53. COVID-19's effects exhibit a significant age gradient, falling much more harshly on the elderly and having little impact, statistically speaking, on children.

54. An unvaccinated child is at less risk of serious Covid illness than a vaccinated adult.[23]

55. The risk associated with COVID-19 increases exponentially with age.[24]

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[20] "Effectiveness of Adding a Mask Recommendation to Other Public Health Measures to Prevent SARS-CoV-2 Infection in Danish Mask Wearers," March 2021, Annals of Internal Medicine, available at https://www.acpjournals.org/doi/10.7326/m20-6817.

[21] *See* "Nonpharmaceutical Measures for Pandemic Influenza in Nonhealthcare Settings—Personal Protective and Environmental Measures," May 2020, CDC Emerging Infectious Diseases, available at: https://wwwnc.cdc.gov/eid/article/26/5/19-0994_article.

[22] *See* "Do mask mandates work? Bay Area COVID data from June says no." June 29, 2022, Eric Ting, SFGate, available at https://www.sfgate.com/coronavirus/article/bay-area-mask-mandate-results-17271294.php.

[23] *See,* https://www.nytimes.com/2021/10/12/briefing/covid-age-risk-infection-vaccine.html

[24] Peter Bauer, Jonas Brugger, Franz König & Martin Posch, "An international comparison of age and sex dependency of COVID-19 deaths in 2020: a descriptive analysis;" 2021, Nature, Scientific Reports.

56. CDC data show that annual pediatric mortality from COVID is similar to that of the flu in unvaccinated children.[25]

57. 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.[26]

THE NEW MANDATE WILL IRREPARABLY HARM PETITIONER MEMBERS

58. Over 150 studies show that masking toddlers and children causes negative social, emotional, and psychological impacts.[27]

59. Reports on mask removal have noted social and emotional benefits for students.[28]

60. Numerous California state[29] and local[30] public health officials have acknowledged growing calls from scientific experts that cloth masks are ineffective[31] in preventing the spread of COVID-19.

61. Aerosol scientists,[32] industrial hygienists and other experts have long maintained that cloth and surgical masks are ineffective at stopping COVID-19, with studies showing that cloth and surgical masks are only 10%-12% effective against airborne pathogens.[33]

62. As risk of infection from a pathogen is based on time and exposure, previous estimates that masks could provide anywhere from 5-45 minutes of protection[34] have now been reduced to seconds or minutes[35] as a result of the highly contagious Omicron variant. These estimates make the requirement for students to wear masks for seven hours per day in a classroom particularly pointless.

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[25] https://www.cdc.gov/nchs/nvss/vsrr/covid_weekly/index.htm; https://www.cdc.gov/flu/about/burden/
[26] https://www.journalofinfection.com/article/S0163-4453(21)00555-7/fulltext; https://link.springer.com/article/10.1007%2Fs00431-021-04345-z
[27] https://brownstone.org/articles/more-than-150-comparative-studies-and-articles-on-mask-ineffectiveness-and-harms/
[28] https://www.wbur.org/news/2021/11/12/hopkinton-high-school-mask-free-trial-policy
[29] https://twitter.com/SovernNation/status/1478850855449206784?s=20
[30] http://publichealth.lacounty.gov/media/Coronavirus/docs/protocols/Reopening_K12Schools.pdf?fbclid=IwAR2g-i4ADExXgH8pOnELw1QVM8pdvVlPlKopnBS1bhcEeByB0xuqWqDUWM8
[31] https://www.wsj.com/articles/cloth-face-mask-omicron-11640984082
[32] https://twitter.com/kprather88/status/1432052441344712704?s=20
[33] https://aip.scitation.org/doi/10.1063/5.0057100
[34] https://1lnfej4c7wie44voctzq1r57-wpengine.netdna-ssl.com/wp-content/uploads/2021/05/Fact_Sheet_Face-Mask.pdf
[35] https://twitter.com/akm5376/status/1425014228159717390?s=20

63. However, instead of simply discontinuing the use of these ineffective masks and concluding that low case rates in schools[36] are the result of other more effective interventions, many public health officials and local education agencies are instead deciding that children should wear "better masks" – in the form of surgical masks or respirators such as N95s, KN95s and the like.

64. Surgical masks, however, are no more effective than cloth due to their poor fit (particularly on children), and respirators are highly-regulated medical devices which do not meet the requirements of the State of California's K-12 mask requirement, and which State and federal government has explicitly *not* approved or recommended for children due to the serious safety risks of their prolonged use.

65. While the CDC claims "wearing a mask does not raise the carbon dioxide level in the air you breathe" because "cloth masks and surgical masks do not provide an airtight fit across the face,"[37] this statement clearly does not apply to respirators since they are specifically designed to create an airtight fit.

66. Decades of additional studies have documented the numerous side effects of wearing N95 respirators over several hours, including increased heart rates,[38] impedance of gaseous exchange and metabolic stress,[39] and increased nasal resistance (potentially due to the mask altering the actual physiology of the nose).[40]

67. Another review of the side effects of everyday use of masks and respirators from 65 publications found the use of N95s caused a drop in oxygen levels, a rise in carbon dioxide levels, respiratory impairment and headaches.[41] One study specifically found that healthy students who wore KN95s experienced dizziness, listlessness, impaired thinking and concentration problems.[42]

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[36] https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/transmission_k_12_schools.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fmore%2Fscience-and-research%2Ftransmission_k_12_schools.html#schools-cov2-transmission

[37] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html

[38] "Effects of wearing N95 and surgical facemasks on heart rate, thermal stress and subjective sensations" https://www.ncbi.nlm.nih.gov/labs/pmc/articles/PMC7087880/

[39] "Respiratory consequences of N95-type Mask usage in pregnant healthcare workers—a controlled clinical study" https://www.ncbi.nlm.nih.gov/labs/pmc/articles/PMC4647822/

[40] "Effects of long-duration wearing of N95 respirator and surgical facemask: a pilot study," http://medcraveonline.com/JLPRR/JLPRR-01-00021.pdf

[41] https://www.ncbi.nlm.nih.gov/labs/pmc/articles/PMC8072811/

[42] https://iopscience.iop.org/article/10.1088/1755-1315/531/1/012034

68. Health care workers often report bruising, scarring, rashes and other physical complications from prolonged use of N95s.[43]

69. Additionally, people wearing N95s have been involved in serious accidents after passing out from oxygen deprivation.[44]

Neurological and Developmental Harms

70. Children learn speech, communication and language skills through multiple channels of communication. Non-verbal channels of communication are critical for learning language, communication, social and emotional reciprocity. Facial gestures, especially those involving the coordination of facial expression with speech, eye movements and manual gestures are critical for children to develop social, emotional and communication skills. Speech instruction for typically developing children relies on modeling and observation of the fluent speaker by the child. (Megerian Dec., ¶ 8).

71. Mask mandates have had an inordinately disproportionate negative impact on children with neurodevelopmental disabilities by limiting access to normal social interaction, therapeutic interventions that require the ability for them see normal facial expression and speech production and coordinate those observations with the other channels of verbal and non-verbal communications. All children rely on these facial cues and have been impacted by school masking policies. (Megerian Dec., ¶ 9).

72. In children with neurodevelopmental disorders such as Autism, a key deficiency surrounds their inability to recognize and decode meaning and emotional valence from facial expression. In children with speech delays, it is critical for speech therapists and teachers to be able to demonstrate the coordination of the movement of the mouth with the production of sound in order for children's speech ability to progress. These skills in turn impact other aspects of decoding, and are critical for distal forms of language development such as reading. (Megerian Dec., ¶ 10).

73. Masking children impairs acquisition of these skills during the critical window of development. As a result, masking, which can impact speech development, is also expected to have

[43] https://www.refinery29.com/en-us/2020/04/9662080/nurse-n95-bruises-face-mask
[44] https://people.com/human-interest/man-wearing-n95-mask-passes-out-while-driving-car-crashing-into-pole/

a negative effect on reading. In fact, several sources have documented a negative impact on literacy development even in typically developing children as a result of the unnatural practice of masking children. The impact on children with neurodevelopmental disorders is even more substantial. (Megerian Dec., ¶ 10).

74. Several studies have documented the negative effects masking has had on development of critical skills for emotional literacy and non-verbal communication transmitted through facial expression, and these findings are prevalent in typically developing children across the age range, as well as children with neurodevelopmental disorders such as Autism. (Megerian Dec., ¶ 11).

75. Masking children causes them to fail to meet targeted therapeutic milestones. Many have regressed. The inability to see peer facial expressions, model the mechanics of speech by observing how words are formed in others, and having access to all of the normal channels of communication has had devastating impact on childrens' ability to reach their full potential. (Megerian Dec., ¶ 13).

76. Moreover, these skills become much more difficult to learn as time goes by. The developmental window for learning language, social and emotional reciprocity is limited and when children do not have access to full aspects of therapy, and exposure to normative facial expression and speech production, they are not able to 'make it up' once those developmental windows close. (Megerian Dec., ¶ 13).

77. Accordingly, it is imperative that schools do not reinstitute masking. The cost in disability and failed therapies will be life long, and the deleterious impact will ripple into all facets of their future lives. (Megerian Dec., ¶ 14). As these are no longer short-term, one-time interventions, the costs of masking students for the past two years – and for years on end – must be factored in.

Speech and Language Disorders

78. Children with speech sound disorders are extremely impacted by masking. It is almost impossible to know if a child is saying "thumb" or "fumb" with a mask on and not being

able to visually see their mouth. They cannot hear and understand the task when the therapist is also masked and cannot demonstrate appropriate lip/tongue positioning. (Stuart Dec., ¶ 6).

79. Speech and language delays are the most common childhood disability. Kids with speech sound disorders frequently go on to struggle to learn to read, and without adequate ability to learn speech sounds and remediate phonological processes, they will be further harmed by illiteracy. (Stuart Dec., ¶ 7).

80. Speech delayed children who are forced to mask participate less in class, struggle to make friends and struggle to get the teacher support they need to learn. . (Stuart Dec., ¶ 8). Many children considered "late talkers" are unable to motor plan for speech sounds and need visuals to understand and motor plan for the sounds /b/, /m/ and /w/. This is profoundly inhibited while masked. (Stuart Dec., ¶ 9).

81. Providing encouragement with smiles or decreasing the amount of cues needed for children by using visuals of the mouth is not able to happen when masked, therefore making children more dependent on support and taking longer to possibly achieve age appropriate language development. (Stuart Dec., ¶ 10).

82. Children who present with Developmental Language Disorder have delayed oral language skills and errors in grammar and sentence structure. These children are also difficult to understand behind masks and are harmed by teachers and professionals not knowing what they are saying while trying to measure their progress. (Stuart Dec., ¶ 12).

83. Masking children with communication disorders along with their therapists impedes their development, and with the continuous reimplementation of mask mandates, some children may never resolve their speech and language disorders. (Stuart Dec., ¶ 16).

Disconnection from Teachers and Deepening Inequities

84. Masking impairs the ability of teachers and caregivers to monitor the well-being of their students. Masking makes it extremely difficult to nurture trusting relationships between students and teachers. Some teachers have observed that students are not as willing to engage in meaningful conversation and their ability to confide in trusting adults is impaired from behind a mask. (Lance Dec., ¶ 5).

85. Masking is not "harmless," especially for children with exceptionalities. Masks have made the learning experience considerably harder for students who are hearing impaired, students who have anxiety, and students who already struggle with social cues, such as those with Autism Spectrum Disorder. As a result, teachers are witnessing the deepening of inequities among students. Long-term masking fuels social, psychological, emotional, educational, and economic inequities. (Lance Dec., ¶ 7).

86. Educators are witnessing rapid deterioration of the mental wellbeing of children and youth. Educators are observing the highest levels of depression, anxiety and low self-worth that they have ever seen. (Lance Dec., ¶ 10).

87. Children are taught that they are vectors of disease. (Lance Dec., ¶ 12). They feel unseen, unheard, and they have carried the burden of the pandemic with them daily for the last two and a half years.

88. Some children are terrified to remove their masks because they believe they will be responsible for the death of their loved ones. Children have internalized a deep sense of social responsibility that is inhibiting their ability to live as healthy individuals. Reinstating a mask mandate will resurface and exacerbate these issues. (Lance Dec., ¶ 14).

Headaches, Migraines and Social Isolation

89. Wearing a mask for approximately six hours per day causes severe headaches and migraines in some children. (G.K. Dec., ¶ 7).

90. Children who experience physical pain as a result of mask wearing are forced to choose between enduring pain, or being removed from their social and educational communities. (G.K. Dec., ¶¶ 9-11).

91. If the mask mandate is reinstated, these children will again suffer migraines and headaches, and will have to return to online learning to avoid daily physical pain. With online learning comes isolation, depression, anxiety and withdrawal from social connections. (G.K. Dec., ¶ 11).

Social Anxiety, Fear, and Difficulty Breathing and Learning

92. When children and teachers were forced to mask, some children developed speech issues and could not understand their masked teachers. (E.S. Dec., ¶ 7).

93. Students have fallen behind academically due to low engagement in distance learning and now suffer social anxiety. Some children do not want to go anywhere where they will be forced to mask, including school, because they fear harassment and shame from others. (E.S. Dec., ¶ 8).

94. Wearing a mask inhibits a child's ability to breathe. Despite this, children are forced to wear masks at school, and feel they have to choose between struggling to breathe or getting in trouble with teachers and administration. (E.S. Dec., ¶ 9).

95. When mask mandates are in place, many parents opt to keep younger children home instead of sending them to preschool or kindergarten in order to avoid forced masking. (*E.g.,* E.S. Dec., ¶ 10).

96. These children lose critical years of education and development. Some children who have been subjected to forced masking in childcare and school settings have developed social anxiety and fear of adults after having adults physically force masks onto their faces. If a mask mandate is reinstated, these children will again suffer severe social anxiety, fear, and difficulty breathing and learning. (E.S. Dec., ¶ 10).

Painful Persistent Facial Rashes

97. Mask-wearing for six or more hours per day causes severe facial rashes in some children. (E.g., L.M. Dec., ¶¶ 8, 9, Exhs. L, M).

98. For these children, continued wearing of masks after developing a rash interferes with the ability of the skin to heal and causes prolonged pain. (L.M., ¶ 11).

99. Facial rashes caused by masking necessitate daily administration of both oral and topical medications. (L.M., ¶¶ 10, 11).

100. Children suffering from such rashes may also suffer from social anxiety and require therapy. (L.M., ¶¶ 12, 13). The anxiety and painful rashes will return if the New Mandate is reinstated.

101. As of the date of drafting this petition, Petitioner organization has received statements from over 100 members regarding the harms their children suffered under the County's previous mask mandates.

102. If the New Mandate goes into effect, these children will again suffer the same harms described above.

FIRST CAUSE OF ACTION

(Petition for Writ of Mandate – Abuse of Discretion under Health and Safety Code sections 120175 and 101040)

(Code Civ. Proc. § 1085)

Against All Respondents

103. Petitioner hereby incorporates each of the foregoing paragraphs as though fully set forth herein.

104. On or about July 13, 2022, DPH Director Barbara Ferrer announced that the New Mandate would be returning because the County had entered the CDC's "High" tier of community COVID risk.

105. The County, however, is not actually in the "High" tier based on CDC the actual risk to hospitals. DPH has misinterpreted the CDC metrics and is not required to follow CDC Guidance, regardless of their recommendations.

106. DPH erroneously used the number of hospitalized patients who *incidentally tested positive for COVID*, rather than the number of patients *hospitalized due to COVID*. (Klausner dec).

107. Using accurate counts of patients actually hospitalized due to COVID, the County drops out of the "High" tier of community COVID risk.

108. In issuing the New Mandate in light of these facts, Respondents acted arbitrarily, beyond the bounds of reason.

109. Accordingly, DPH abused its discretion under Health and Safety Code sections 120175 and 101040 by using inaccurate hospitalization data to calculate community risk levels, upon which it relied to justify implementing the New Mandate.

110. Petitioner has no plain, speedy, or adequate remedy in the ordinary course of law.

111. Petitioner has exhausted all available administrative remedies required to be pursued by it and/or are excused from exhausting such remedies.

112. As a further proximate result of Respondent's and Defendants' actions, Petitioner has incurred and will continue to incur attorneys' fees and costs that are legally compensable pursuant to California Government Code section 800.

SECOND CAUSE OF ACTION

(Petition for Writ of Mandate – Abuse of Discretion under Health and Safety Code sections 120175 and 101040)

(Code Civ. Proc. § 1085)

Against All Respondents

113. Petitioner hereby incorporates each of the foregoing paragraphs as though fully set forth herein.

114. On July 13, 2022, Chief Medical Officer Dr. Brad Spellberg, Chief Executive Officer Jorge Orozco, and Epidemiologist and Infectious Disease Division Service Chief Dr. Paul Holtom of the Los Angeles County + University of Southern California (LAC+USC) Medical Center expressed calm and reassuring observations of a decrease in severity of COVID.

115. The County's physicians admitted:

a. "[W]e're just seeing nobody with severe COVID disease." – Dr. Holtom.

b. "[W]e have no one in the hospital who had pulmonary disease due to COVID. Nobody in the hospital." – Dr. Holtom.

c. "[C]ertainly there is no reason from a hospitalization due to COVID perspective, to be worried at this point." – Dr. Holtom.

d. "We're seeing a lot of people with mild disease in urgent care or ED who go home and do not get admitted." – Dr. Spellberg.

e. "A lot of people have bad colds, is what we're seeing." – Dr. Spellberg.

f. "It is just not the same pandemic as it was, despite all the media hype to the contrary." – Dr. Spellberg. (Exh. A).

116. On or about that same day, County Public Health Director Barbara Ferrer announced that she intends to implement a new countywide mask mandate due to the County being in the "High" tier of community COVID risk.

117. The incongruity between the County's decision to impose such a dramatic restriction on its residents and the remarks of the LAC+USC physicians explaining the waning risks of COVID and absence of high hospitalization due to COVID demonstrates decision-making by County Public Health that is arbitrary, capricious, and entirely lacking in evidentiary support.

118. Implementation of the New Mandate is completely irreconcilable with the admissions made by the County's own top physicians. In issuing the New Mandate in light of the County physicians' statements, Respondents acted arbitrarily and beyond the bounds of reason.

119. Accordingly, the New Mandate is an abuse of discretion as a matter of law because it is arbitrary, capricious, and entirely lacking in evidentiary support, it bears no reasonable relation to the public welfare, and is so palpably unreasonable and arbitrary.

120. Petitioner has no plain, speedy, or adequate remedy in the ordinary course of law.

121. Petitioner has exhausted all available administrative remedies required to be pursued by it and/or are excused from exhausting such remedies.

122. As a further proximate result of Respondents and Defendants' actions, Petitioner has incurred and will continue to incur attorneys' fees and costs that are legally compensable pursuant to California Government Code section 800.

THIRD CAUSE OF ACTION

(Petition for Writ of Mandate – Abuse of Discretion under Health and Safety Code sections 120175 and 101040)

(Code Civ. Proc. § 1085)

Against All Respondents

123. Petitioner hereby incorporates each of the foregoing paragraphs as though fully set forth herein.

124. Countless studies and data, including recent randomized controlled trial studies, show that mask mandates have no demonstrable impact on the spread of COVID.

125. DPH has failed entirely to consider any evidence regarding the futility of mask mandates. In issuing the New Mandate despite overwhelming evidence that such a mandate will have no impact on public health outcomes, Respondents acted arbitrarily and beyond the bounds of reason.

126. Accordingly, the New Mandate is an abuse of discretion as a matter of law because it is arbitrary, capricious, and entirely lacking in evidentiary support, it bears no reasonable relation to the public welfare, and is so palpably unreasonable and arbitrary.

127. Petitioner has no plain, speedy, or adequate remedy in the ordinary course of law.

128. Petitioner has exhausted all available administrative remedies required to be pursued by it and/or are excused from exhausting such remedies.

129. As a further proximate result of Respondent's and Defendants' actions, Petitioner has incurred and will continue to incur attorneys' fees and costs that are legally compensable pursuant to California Government Code section 800.

FOURTH CAUSE OF ACTION

VIOLATION OF EQUAL PROTECTION CLAUSE

OF CALIFORNIA CONSTITUTION

(Cal. Const., art. I, § 7)

Against All Respondents

130. Petitioners hereby incorporate each of the foregoing paragraphs as though fully set forth herein.

131. Under the Equal Protection Clause of the California Constitution, "[a] person may not be … denied equal protection of the laws." (Cal. Const., art. I, § 7, subd. (a).) Further, "[a] citizen or class of citizens may not be granted privileges or immunities not granted on the same terms to all citizens." (Cal. Const., Art. I, § 7(b).)

132. The New Mandate, as applied to children, violates the equal protection clause of the California Constitution because it is enforced in a way that disproportionately impacts and harms children.

133. To establish an equal protection violation based on the discriminatory application of a facially nondiscriminatory law, in a case that does not involve a suspect class or fundamental right, a plaintiff must prove that (1) the plaintiff was treated differently from persons similarly situated; (2) the unequal treatment was intentional; and (3) the unequal treatment was not rationally related to a legitimate governmental purpose. *Village of Willowbrook v. Olech* (2000) 528 U.S. 562, 564; *Snowden v. Hughes* (1944) 321 U.S. 1, 8; *Warden v. State Bar* (1999) 21 Cal.4th 628, 641, 644; *Genesis Environmental Services v. San Joaquin Valley Unified Air Pollution Control Dist.* (2003) 113 Cal.App.4th 597, 605–606.

134. With respect to the New Mandate, based on the County's enforcement of past mask mandates, children are treated differently and far more harshly than adults. Because children spend 6-8 hours per day in childcare or school and have less autonomy than adults, they are required to remain masked far longer than adults. The New Mandate therefore imposes heavy restrictions with a higher potential for harm on a lower-risk impose heavy restrictions on a lower-risk class of people – children – while imposing fewer or no restrictions on higher-risk adults.

135. The County's health orders have consistently been enforced far more harshly against children than they have against adults, and the New Mandate will be no different. In school and childcare settings, children have no agency. Children are required by teachers and caregivers to keep their faces covered, and sent home if they cannot comply.

136. The disparate treatment is intentional. The DPH and CDC are heavily involved with and influenced by teachers' unions. (RJN, Exh. D). National, state and local teachers unions have demanded that children mask in order to "protect" the unionized adult teachers, and have used the masking of children as a bargaining chip used to increase pay and benefits. (RJN, Exh E). Children in schools are treated as vectors of disease by teachers unions, and that discrimination has made its way into public policy due to heavy union influence on DPH and CDC.

137. The unequal treatment of children versus adults is not rationally related to a legitimate government purpose. There is no rational basis to treat these classes differently in this manner. In fact, the only rational justification for treating adults and children differently with respect to COVID would be to restrict adults more heavily than children since they are at far greater

risk of serious illness and death from COVID-19, and professional athletes attract much larger crowds than youth sports. Instead, the New Mandate gives adult athletes free reign, and requires youth participants and organizers to jump through so many hoops that many small nonprofit leagues in Los Angeles County canceled their seasons.

138. Similarly, there is no rational basis to force children to wear masks for over six hours per day in school and in childcare facilities, while 70,000 fans can sit shoulder to shoulder unmasked to watch adults play sports in an arena like So-Fi. All 70,000 fans can hold a hot dog and a beer while unmasked and comply with State and County orders, while lower-risk children are forced to remain masked and distanced from peers throughout the school day. While children are threatened with expulsion for failure to comply, sports fans face no repercussions.

139. Despite very public violations of masking orders at both the NFC Championship and Super Bowl earlier this year, no enforcement action was taken against SoFi Stadium or the attendees (which included many public officials). On the other hand, County inspectors have aggressively enforced mandates against schools, childcare facilities, and youth sports, with the County issuing citations and initiating enforcement actions.

140. The practices described herein violate Petitioners' rights to the equal protection of the laws as guaranteed by Cal. Const. art. I, § 7 because Respondents' practices constitute differential treatment solely because of age.

141. As a direct and proximate result of DPH's conduct as alleged herein, Petitioner and the other class members have been discriminated against because of their age; greatly inconvenienced; subjected to significant mental, emotional, and physical harm; and otherwise intimidated and humiliated.

142. Unless restrained or enjoined by this court, Respondents will continue to subject Petitioner and the class to arbitrary mask rules; to being masked without demonstrable proof of effectiveness; and otherwise to intimidation, humiliation and discrimination in violation of Cal. Const. art. I, § 7.

143. Petitioner and the class have no plain, speedy, or adequate remedy at law, and for that reason, they seek declaratory and injunctive relief.

FIFTH CAUSE OF ACTION

(Declaratory Judgment)

(Code Civ. Proc. § 1060)

144. Petitioner re-alleges and re-incorporates by reference all preceding allegations in their entirety, as if fully set forth herein.

145. An actual controversy now exists between Petitioner and Respondent as to whether Respondent's practice of implementing and enforcing the New Mandate against children far more harshly than adults, as described herein, violates Petitioner's rights under the Equal Protection Clause of the California Constitution (Cal. Const. art. I, § 7).

146. The parties require a judicial declaration of rights in order to properly address Petitioner's complaints about Respondents' practices. Specifically, the parties require a declaration from the court regarding whether defendants practices, as alleged herein, violate the state Equal Protection Clause and, if so, in what manner.

SIXTH CAUSE OF ACTION

(Civil Action for Deprivation of Rights)

(42 U.S.C. 1983)

147. Petitioner re-alleges and re-incorporates by reference all preceding allegations in their entirety, as if fully set forth herein.

148. Every person who, under color of any statute, ordinance, regulation, custom, or usage, of any State or Territory or the District of Columbia, subjects, or causes to be subjected, any citizen of the United States or other person within the jurisdiction thereof to the deprivation of any rights, privileges, or immunities secured by the Constitution and laws, shall be liable to the party injured in an action at law, suit in equity, or other proper proceeding for redress.

149. From March 2020 through the present, Defendants subjected Petitioner members, or caused Petitioner members to be subjected to, through improper and illegal actions by Defendants, the deprivation of and interference with rights and privileges secured by the constitutions and laws of the United States and the State of California.

150. DPH continues to violate Plaintiff and Petitioner's equal protection rights by selectively prosecuting their schools, childcare facilities, and activities for violations while allowing, encouraging, and publicly praising adult-focused businesses like packed football games at SoFi Stadium and refraining from prosecuting public figures like Eric Garcetti and Gavin Newsom. Those businesses and individuals are allowed to violate COVID restrictions with impunity.

151. Defendants offer no explanation why businesses' obvious violations of mandates in the past have been permitted to occur with impunity.

152. Further, DPH has engaged in a pattern and practice of instituting arbitrary and capricious mandates unsupported by evidence that have a disproportionately harmful impact on children.

153. Defendants have violated Plaintiff's civil rights by depriving them of their substantive due process and equal protection rights.

154. Defendants' actions and omissions were taken under the color of statutes, ordinances, regulations, customs, and usages of the State of California.

155. As a proximate result of Defendants' actions and omissions as described herein, Plaintiff and Petitioner has suffered injury and damages, and continues to suffer injury and damages, including but not limited to what has been described above, which are compensable pursuant to California Civil Code 52.1(b), in an amount which cannot be now ascertained but which is within the jurisdiction of this Court and shall be determined according to proof at trial.

156. As a further proximate result of Defendant's actions and omissions, Plaintiff has incurred fees and costs for attorneys and experts, said fees and costs being legally compensable pursuant to California and federal law.

PRAYER FOR RELIEF

WHEREFORE, Petitioner prays for relief as follows:

On the First, Second, and Third Causes of Action

1. For alternative and peremptory writs of mandate prohibiting DPH from implementing or enforcing the arbitrary and capricious New Mandate;

2. For temporary stay of enforcement of the New Mandate and all related matters pending a hearing on the merits and pending judicial review including appellate review of any judgment in this case;

3. For reasonable attorneys' fees and costs pursuant to California Government Code section 800;

On the Fourth, Fifth, and Sixth Causes of Action

4. For a declaratory judgment pursuant to Code Civ. Proc. § 1010, declaring that treating lower-risk children far more harshly than adults under the New Mandate denies children in the County equal protection of the laws in violation of the Equal Protection Clause of the California Constitution;

5. For damages according to proof;

6. For reasonable attorneys' fees and costs under 42 U.S.C. §1983, §1988, California Civil Code 52.1, California Code of Civil Procedure §1036, and any other applicable statute;

On all Causes of Action

7. For injunctive relief directing Respondents to refrain from

a. Implementing or enforcing the New Mandate based on erroneous hospitalization data;

b. Implementing or enforcing the New Mandate without considering evidence from the County's own medical doctors that COVID is no longer causing serious disease and there is no reason from a hospitalization due to COVID perspective to be concerned about COVID spread;

c. Implementing or enforcing the New Mandate without considering evidence that mask mandates have no demonstrable impact on spread of COVID;

d. Implementing or enforcing the New Mandate in a manner that disproportionately harms children, in violation of the equal protection clause;

e. Implementing or enforcing the New Mandate in a way that disparately impacts children, and to take no further unlawful acts to restrict children more than any other demographic;

8. For costs of suit as allowed by law, including attorney's fees pursuant to Code Civ. Proc; § 1021.5.

9. For such other and further relief as may be just and proper.

Dated: July 26, 2022

Hamill Law & Consulting

By: _/s/ Julie A. Hamill_____
Julie A. Hamill
Attorney for Petitioner
Alliance of Los Angeles County Parents

VERIFICATION

I, Margaret Orenstein, declare:

1. I am a founding member of the Alliance of Los Angeles County Parents, an unincorporated association.

2. The Alliance of Los Angeles County Parents is Petitioner and Plaintiff in the above-entitled action, and I have been authorized to make this verification on its behalf.

3. I have read the foregoing Verified Complaint and Petition for Writ of Mandate and know the contents thereof, except as to those matters which are alleged on information and belief, and as to those matters I believe them to be true.

4. I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct and that this verification was signed on the 26th day of July, 2022 in Los Angeles, California.

____/s/_____

Margaret Orenstein
Founding Member
Alliance of Los Angeles County Parents

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Attorney for Petitioner and Plaintiff
ALLIANCE OF LOS ANGELES COUNTY PARENTS

SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES

ALLIANCE OF LOS ANGELES COUNTY PARENTS, an unincorporated association Petitioner and Plaintiff, vs. COUNTY OF LOS ANGELES COUNTY DEPARTMENT OF PUBLIC HEALTH; MUNTU DAVIS, in his official capacity as Health Officer for the County of Los Angeles; BARBARA FERRER, in her official capacity as Director of the County of Los Angeles Department of Public Health; and DOES 1 through 25, inclusive, Respondents and Defendants.	Case No.: **DECLARATION OF JEFFREY D. KLAUSNER, MD, MPH** DEPT. NO.: Dept. HEARING JUDGE: HEARING DATE: HEARING TIME:. DATE ACTION FILED: TRIAL DATE: None Set

DECLARATION OF JEFFREY KLAUSNER

I, Jeffrey D. Klausner, MD, MPH declare:

1. I am a clinical professor of Medicine, Infectious Diseases, Population and Public Health at Keck School of Medicine of the University of Southern California. I make this declaration of my own personal knowledge, and if called to testify in Court on these matters, I could do so competently.

2. I received my medical training at Cornell University Medical School. Following my medical training, I completed my residency in Internal Medicine at New York University Medical Center-Bellevue Hospital Center.

3. I received my Masters of Public Health in International Health at Harvard School of Public Health. Prior to assuming the role of Director at San Francisco Department of Public Health STD Services, I worked as an Officer, Epidemic Intelligence Service at the Centers for Disease Control. I completed a fellowship in Infectious Diseases at University of Washington, Seattle.

4. I am a journal reviewer for many journals including Journal of AIDS and Human Retrovirology, Clinical Infectious Disease, and American Journal of Epidemiology. I have extensive research experience and am the author or co-author of numerous publications.

5. I am familiar with and have reviewed the studies and data referenced in this declaration. I am co-author of one or more of the studies described herein.

6. On or about July 13 2022, Los Angeles County ("County") Public Health Director Barbara Ferrer announced that the county had entered the Centers for Disease Control and Prevention ("CDC")'s "High" tier of community COVID risk, and that a mask mandate would be forthcoming.

7. The County, however, is not actually in the "High" tier.

8. The CDC now classifies COVID risk in each county with a metric called "Community Levels," which incorporates both case counts and hospitalization rates.

9. The Community Levels system was implemented to ensure that public health recommendations or mandates are not triggered by widespread mild illness, replacing an earlier system that only looked at positive test counts.

10. To enter the "High" risk Community Level, a county must have more than 10 new COVID hospitalizations per 100,000 people over a seven-day period. CDC data show the County at 11 per 100,000, so by that measure the County is designated "High."

11. Beneath those numbers, though, is a critical error: most of those "COVID hospitalizations" are not actually caused by COVID. This concept is explained in further detail in a recent publication that I co-authored, entitled "A More Accurate Measurement of the Burden of COVID-19 Hospitalizations," published July 5, 2022, Open Forum Infectious Diseases, available at https://academic.oup.com/ofid/advance-article/doi/10.1093/ofid/ofac332/6631399. A true and correct copy of this article is attached hereto as Exhibit G.

12. The numbers represent people coming to the hospital for unrelated reasons who happen to test positive at the time. We know this from County Public Health's own data, which reports that since March only 40% of COVID-positive hospitalizations in the county have actually been caused by COVID. The County Public Health's hospitalization data entitled "Monthly estimates of the percent of confirmed hospitalized COVID-19 cases with COVID-associated illness and with incidentally detected COVID, Los Angeles County," is available at http://publichealth.lacounty.gov/media/coronavirus/locations.htm#hospitalizations. A true and correct copy is attached here as Exhibit C. I reviewed this data on or about July 20, 2022.

13. If hospitalizations due to COVID, rather than hospitalizations with incidental COVID positive tests, are counted to accurately reflect the virus' impact, the County easily drops out of the "High" tier.

14. According to County Department of Health Services hospital officials, even the 40% number is a large overestimate.

15. In a video from a July 13, 2022 Town Hall, Los Angeles County + USC Medical Center Chief Medical Officer Dr. Brad Spellberg said of COVID admissions, "90% of the time it is not due to COVID. Only 10% of our COVID-positive admissions are due to COVID. Virtually none

of them go to the ICU, and when they do go to the ICU it is not for pneumonia. They are not intubated … we haven't seen one of those since February." A true and correct copy of the video is available on the Los Angeles County + USC Medical Center Youtube channel at https://www.youtube.com/watch?app=desktop&v=_fGuA-nU7EI&t=469s, and will be submitted to the Court in whatever format the Court desires and marked as Exhibit A.

16. County Health Services confirmed the hospitalization data in a public statement released on social media, stating: "We currently have 30 COVID-positive patients in the hospital, of whom three were admitted for COVID, none of whom are in the ICU." A true and correct copy of the County's statement, which I reviewed prior to signing this declaration, is attached hereto as Exhibit F.

17. Hospital epidemiologist Dr. Paul Holtom summarized the situation this way: "As of this morning, we have no one in the hospital who had pulmonary disease due to COVID … Certainly, there's no reason from a hospitalization-due-to-COVID perspective to be worried at this point." (Exhibit A).

18. The case for new mandates is further undermined by the growing scientific literature showing mask mandates to be ineffective. In the pandemic turmoil of 2020, most studies did not have the ability to compare COVID rates with and without masks in groups that were otherwise carefully matched. See, for example, "COMMENTARY: What can masks do? Part 2: What makes for a good mask study — and why most fail," October 15, 2021, Center for Infectious Disease Research and Policy, available at https://www.cidrap.umn.edu/news-perspective/2021/10/commentary-what-can-masks-do-part-2-what-makes-good-mask-study-and-why-most.

19. Claims of mask efficacy were thus based on studies with no or improper control groups. Other studies have relied on phone surveys (for example, see "Effectiveness of Face Mask or Respirator Use in Indoor Public Settings for Prevention of SARS-CoV-2 Infection — California, February–December 2021," February 11, 2022, CDC Morbidity and Mortality Weekly Report (MMWR)) or mathematical models rather than direct measurements of infection or transmission, or

used contact tracing protocols that excluded counting masked transmission (see, "Contact Tracing Policy for Masked Students May be an Important Confounding Variable," June 29, 2022, Pediatrics, available at https://publications.aap.org/pediatrics/article-abstract/150/1/e2022057636A/188362/Contact-Tracing-Policy-for-Masked-Students-May-be?redirectedFrom=fulltext?autologincheck=redirected?autologincheck=redirected.)

20. Now in mid-2022 we have much better data. Exhaustive tracking of in-school COVID spread was indistinguishable with and without student mask use in studies in Spain, a conclusion repeated in two separate COVID waves. *See* "Unravelling the Role of the Mandatory Use of Face Covering Masks for the Control of SARS-CoV-2 in Schools: A Quasi-Experimental Study Nested in a Population-Based Cohort in Catalonia (Spain)," March 7, 2022, SSRN, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4046809. A true and correct copy of this study is attached as Exhibit H.

21. Studies of student masking with control groups in Georgia, North Dakota, Finland and the UK have all found the same lack of any clear benefit. *See,* "Association between School Mask Mandates and SARS-CoV-2 Student Infections: Evidence from a Natural Experiment of Neighboring K-12 Districts in North Dakota," July 1, 2022, Research Square, available at https://www.researchsquare.com/article/rs-1773983/v1*; See also* "Use of face masks did not impact COVID-19 incidence among 10–12-year-olds in Finland," April 7, 2022, Medrxiv, available at https://www.medrxiv.org/content/10.1101/2022.04.04.22272833v1. True and correct copies of these studies, respectively, are attached as Exhibits I and J.

22. One randomized controlled trial showed no significant benefit to the mask wearer. "Effectiveness of Adding a Mask Recommendation to Other Public Health Measures to Prevent SARS-CoV-2 Infection in Danish Mask Wearers," March 2021, Annals of Internal Medicine, available at https://www.acpjournals.org/doi/10.7326/m20-6817. A true and correct copy of this study is attached as Exhibit K.

23. When researchers repeated a CDC study showing a mask benefit using identical methods but a larger and better dataset, the benefit of masking disappeared.

24. Influenza transmits by the same aerosol route as COVID, so we must add the results of ten randomized controlled trials on masking and influenza, which the CDC reviewed and "found no significant effect of face masks on transmission." *See* Nonpharmaceutical Measures for Pandemic Influenza in Nonhealthcare Settings—Personal Protective and Environmental Measures, May 2020, CDC Emerging Infectious Diseases, available at: https://wwwnc.cdc.gov/eid/article/26/5/19-0994_article.

25. White House COVID-19 Response Coordinator Ashish Jha found no difference in Omicron infection rates between mask-mandated California and mask-mandate-free Florida, and Alameda County's recent mask mandate produced no difference in COVID rates versus neighboring counties. *See* "Do mask mandates work? Bay Area COVID data from June says no." June 29, 2022, Eric Ting, SFGate, available at https://www.sfgate.com/coronavirus/article/bay-area-mask-mandate-results-17271294.php.

26. Doctors and scientists agree the data relied upon by County Department of Public Health and Ferrer are not accurate. Accordingly, such data should not be used to justify a new public health mandate – especially when there is no evidence to show that such a mandate will be effective.

27. Public health mandates are not harmless, especially for children, students, parents, and families, who should not have to enter a fourth school year with restrictions based on fear not science.

I declare under penalty of perjury under the laws of California that the foregoing is true and correct.

Dated: July 24, 2022

Jeffrey Klausner

By: _____

Jeffrey D. Klausner, MD, MPH

Julie A. Hamill (272742)
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Attorney for Petitioner and Plaintiff
ALLIANCE OF LOS ANGELES COUNTY PARENTS

SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES

ALLIANCE OF LOS ANGELES COUNTY PARENTS, an unincorporated association Petitioner and Plaintiff, vs. COUNTY OF LOS ANGELES COUNTY DEPARTMENT OF PUBLIC HEALTH; MUNTU DAVIS, in his official capacity as Health Officer for the County of Los Angeles; BARBARA FERRER, in her official capacity as Director of the County of Los Angeles Department of Public Health; and DOES 1 through 25, inclusive, Respondents and Defendants.	Case No.: **DECLARATION OF J. THOMAS MEGERIAN, M.D., PH.D** DEPT. NO.: Dept. HEARING JUDGE: HEARING DATE: HEARING TIME:. DATE ACTION FILED: TRIAL DATE: None Set

DECLARATION OF J. THOMAS MEGERIAN, M.D., PH.D

I, J. Thomas Megerian, MD, PH.D, declare:

1. I am of legal age and am competent to make this declaration. I am a California resident. I have volunteered to write this on behalf of the children and adolescents I care for as part of my professional practice as a neurodevelopmental child neurologist.

2. I am board certified in pediatrics and in Neurology with a special qualification in Child Neurology. I trained in Pediatrics at Boston City Hospital which was a Boston University Medical School program. I completed my specialty training in Neurology at the Harvard-Longwood Neurology Training Program, and the Child Neurology Training Program at Boston Children's Hospital Division of Neurology. I have received additional training in neurodevelopmental disabilities as part of my subspecialty training at Boston Children's Hospital.

3. I received my M.D. and my Ph.D in Neuroscience at Northwestern University Medical School (now known as the Feinberg School of Medicine).

4. I currently am the director of an autism and neurodevelopmental program that assesses and treats children and adolescents with neurodevelopmental disabilities such as autism, global developmental delay, intellectual disability, and other neurodevelopmental syndromic disorders.

5. Part of my practice involves long term follow-up to assess children's progress reaching developmental milestones following institution of school based individualized education plans (IEPs), initiation of critical rehabilitation therapies such as speech and applied behavior analysis, and social skills training.

6. The evidence that masks are ineffective in the preventing the spread of Covid-19 infection within school systems and elsewhere is mounting. *See* https://www.sfgate.com/coronavirus/article/bay-area-mask-mandate-results-17271294.php; https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4046809; https://journals.lww.com/pidj/fulltext/2021/11000/age_dependency_of_the_propagation_rate_of.2.a

spx; https://www.acpjournals.org/doi/10.7326/m20-6817; and https://www.medrxiv.org/content/10.1101/2022.04.04.22272833v1. I have reviewed and am familiar with each of these studies.

7. We have never masked children before during other epidemics of flu, even during years when annualized death and disability were at peaks equal to or exceeding Covid-19 (Urgency of Normal Under 5 Toolkit, https://data.cdc.gov/NCHS/Provisional-COVID-19-Deaths-Focus-on-Ages-0-18-Yea/nr4s-juj3; https://www.cdc.gov/flu/about/burden/past-seasons.html). This is because studies have not demonstrated this mitigation to be effective for flu, another airborne respiratory virus (https://wwwnc.cdc.gov/eid/article/26/5/19-0994_article).

8. What we do know and have known for years is that children learn speech, communication and language skills through multiple channels of communication. Next to the auditory component of language, non-verbal channels of communication are critical for learning language, communication, social and emotional reciprocity. Facial gestures, especially those involving the coordination of facial expression with speech, eye movements and manual gestures are critical for children to develop social, emotional and communication skills. We also know that speech instruction for typically developing children relies on modeling and observation of the fluent speaker by the child.

9. Current masking policies and prior school closures have had an inordinately disproportionate negative impact on children with neurodevelopmental disabilities by limiting access to normal social interaction, therapeutic interventions that require the ability for them see normal facial expression and speech production and coordinate those observations with the other channels of verbal and non-verbal communications. Even typically development children rely on these facial cues and have been impacted by school masking policies.

10. In children with neurodevelopmental disorders such as autism, a key deficiency surrounds their inability to recognize and decode meaning and emotional valence from facial expression. In children with speech delays, it is critical for speech therapists and teachers to be able to demonstrate the coordination of the movement of the mouth with the production of sound in

order for children's speech ability to progress. These skills in turn impact other aspects of decoding, and are critical for distal forms of language development such as reading. Masking children impairs acquisition of these skills during the critical window of development. As a result, we would expect masking, which can impact speech development, to also have a negative effect on reading. In fact, several sources have documented a negative impact on literacy development even in typically developing children as a result of the unnatural practice of masking our children (https://www.edweek.org/teaching-learning/how-do-kids-learn-to-read-what-the-science-says/2019/10; https://amplify.com/wp-content/uploads/2021/02/Amplify-mCLASS_MOY-COVID-Learning-Loss-Research-Brief_022421.pdf). The impact on children with neurodevelopmental disorders is even more substantial.

11. In fact, several studies have documented the negative effects masking has had on development of critical skills for emotional literacy and non-verbal communication transmitted through facial expression, and these findings are prevalent in typically developing children across the age range, as well as children with neurodevelopmental disorders such as Autism. (https://www.frontiersin.org/articles/10.3389/fpsyg.2021.669432/full; https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0257740; https://cognitiveresearchjournal.springeropen.com/articles/10.1186/s41235-022-00360-2).

12. WHO and European Union countries have recognized that the risk:benefit ratio for masking children does not favor masking. WHO has stated that children 5 and under should not be required to wear masks, in general and that children with neurodevelopmental disorders specifically should not be mandated to do so https://www.who.int/news-room/questions-and-answers/item/q-a-children-and-masks-related-to-covid-19. The European equivalent of the US CDC has also come out against recommending masking for children under 12. (https://www.ecdc.europa.eu/en/covid-19/questions-answers/questions-answers-school-transmissio0).

13. In my practice, we have seen children failing to meet targeted therapeutic milestones since the pandemic began. Indeed, many have regressed because of their inability to receive proper therapies in school. The inability to see peer facial expressions, model the mechanics of speech by

observing how words are formed in others, and having access to all of the normal channels of communication has had devastating impact on our childrens' ability to reach their full potential. Moreover, these skills become much more difficult to learn as time goes by. The developmental window for learning language, social and emotional reciprocity is limited and when children do not have access to full aspects of therapy, and exposure to normative facial expression and speech production, they are not able to 'make it up' once those developmental windows close.

14. For these reasons, it is imperative that we do not allow our schools to reinstitute masking. The cost in disability and failed therapies will be life long, and the deleterious impact will ripple into all facets of their future lives.

I declare under penalty of perjury under the laws of California that the foregoing is true and correct.

Dated: July 24, 2022

J. Thomas Megerian, M.D., Ph.D

By: DocuSigned by: Thomas Megerian FC88E2CD382F449...

J. Thomas Megerian, M.D., Ph.D

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ALLIANCE OF LOS ANGELES COUNTY PARENTS

SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES

ALLIANCE OF LOS ANGELES COUNTY PARENTS, an unincorporated association Petitioner and Plaintiff, vs. COUNTY OF LOS ANGELES COUNTY DEPARTMENT OF PUBLIC HEALTH; MUNTU DAVIS, in his official capacity as Health Officer for the County of Los Angeles; BARBARA FERRER, in her official capacity as Director of the County of Los Angeles Department of Public Health; and DOES 1 through 25, inclusive, Respondents and Defendants.	Case No.: **DECLARATION OF KELLY STUART M.S. C.C.C.-S.L.P.** DEPT. NO.: Dept. HEARING JUDGE: HEARING DATE: HEARING TIME:. DATE ACTION FILED: TRIAL DATE: None Set

DECLARATION OF KELLY STUART, M.S., C.C.C.-S.L.P.

I, KELLY STUART, M.S., C.C.C.-S.L.P., declare:

1. I am of legal age and am competent to make this declaration. I am a California resident. I have volunteered to write this on behalf of the children and adolescents I care for as part of my professional practice as a pediatric speech-language pathologist.

2. I have a Certificate of Clinical Competence in Speech-Language Pathology (CCC-SLP) from the American Speech-Language-Hearing Association. I have a Bachelor's degree in Psychology from the University of California, San Diego and a Masters in Speech-Language Pathology from the University of North Texas.

3. I have 10 years of experience as a pediatric speech-language pathologist in an outpatient setting working with children from 18 months old to 18 years old. I also have experience supervising graduate students and clinical fellows.

4. The children I work with come from a variety of backgrounds and come to our practice through various insurance options including Medi-Cal, military, private pay, private insurance and state-funded pay.

5. Since we resumed in person services in June 2020, I have provided speech therapy services while in a mask and with children in masks. Teaching a child to learn to acquire their first language without the visualization of the mouth has been extremely challenging.

6. Kids with speech sound disorders are extremely impacted by masking. It is almost impossible to know if a child is saying “thumb” or “fumb” with a mask on and not being able to visually see their mouth. They cannot hear and understand the task when the therapist is also masked and cannot demonstrate appropriate lip/tongue positioning.

7. Speech and language delays are the most common childhood disability. Kids with speech sound disorders frequently go on to struggle to learn to read, and without adequate ability to learn speech sounds and remediate phonological processes, they will be further harmed by illiteracy.

8. I have many children that I cannot understand despite being very familiar with their speech error patterns, sitting less than 2 feet away from them and being in a quiet room. In a large

classroom and in public, these children are going to participate less in class, struggle to make friends and struggle to get the teacher support they need to learn.

9. Many children considered late talkers are unable to motor plan for speech sounds and need visuals to understand and motor plan for the sounds /b/, /m/ and /w/. This is profoundly inhibited while masked.

10. Providing encouragement with smiles or decreasing the amount of cues needed for children by using visuals of the mouth is not able to happen when masked, therefore making children more dependent on support and taking longer to possibly achieve age appropriate language development.

11. Wearing a clear mask is not a solution as it fogs up immediately and worn for any duration of time collects water on the plastic. Teaching sounds such as /f/, /s/, 'sh' and 'th' are also extremely difficult via teletherapy due to the high frequency nature of these sounds and distortion over computer audio.

12. Children who present with Developmental Language Disorder have delayed oral language skills and errors in grammar and sentence structure. These children are also difficult to understand behind masks and are harmed by teachers and professionals not knowing what they are saying while trying to measure their progress.

13. Many of my kids hide behind their masks, tell me they don't want to talk at school and are frustrated by being asked to repeat themselves time and again. They also appear more easily distracted when I'm masked, missing out on important therapeutic intervention.

14. The majority of children I work with are not eligible for any mask exemptions as they are neurotypical and participating in a general education environment where mask exemptions are not granted.

15. I had a patient with Autism Spectrum Disorder who was forced to sit outside their special education classroom for two weeks waiting for the school to grant them a mask exemption despite already having one from their pediatrician.

16. Based on my personal experience, masking kids with communication disorders along with their therapists is impeding their development, and with the continuous reimplementation of mask mandates, some may never resolve their speech and language disorders.

I declare under penalty of perjury under the laws of California that the foregoing is true and correct.

Dated: July 25, 2022

Kelly Stuart, M.S., C.C.C.-S.L.P.

By: DocuSigned by: 56BA431D366B472...

Kelly Stuart, M.S., C.C.C.-S.L.P.

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Attorney for Petitioner and Plaintiff
ALLIANCE OF LOS ANGELES COUNTY PARENTS

SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES

ALLIANCE OF LOS ANGELES COUNTY PARENTS, an unincorporated association

Petitioner and Plaintiff,

vs.

COUNTY OF LOS ANGELES COUNTY DEPARTMENT OF PUBLIC HEALTH; MUNTU DAVIS, in his official capacity as Health Officer for the County of Los Angeles; BARBARA FERRER, in her official capacity as Director of the County of Los Angeles Department of Public Health; and DOES 1 through 25, inclusive,

Respondents and Defendants.

Case No.:

DECLARATION OF STACEY LANCE

DEPT. NO.: Dept.
HEARING JUDGE:
HEARING DATE:
HEARING TIME:.
DATE ACTION FILED:
TRIAL DATE: None Set

DECLARATION OF STACEY LANCE

I, STACEY LANCE, declare:

1. I am of legal age and am competent to make this declaration. I am a Canadian resident. I have volunteered to write this on behalf of the children and at-risk youth I teach.

2. I have an Honors Baccalaureate in Arts and a Bachelor of Education from the University of Ottawa. I have additional qualifications in Special Education, Religious Education, and Guidance and Career Education.

3. I have been an educator for 15 years in Ottawa, Ontario, Canada. In this capacity, I teach grades 9 through 12 within the public school system. I also specifically work with at-risk youth who struggle with emotional or behavioral challenges, truancy, low academic performance, and addiction.

4. I work tirelessly to ensure that school is a place where our children and youth feel connected, safe, challenged and engaged. As an educator, I am constantly gathering evidence. I make observations and draw conclusions based on what I see and hear. Educators and support staff are often the first to notice when children and youth are suffering from anxiety, depression, abuse, and low self-worth.

5. Masking has impaired my ability to monitor the well-being of the students I teach, and I often worry that I have missed warning signs. I have also found it extremely difficult to nurture trusting relationships with my students. The masks silence the youth I work with. They are not as willing to engage in meaningful conversation and their ability to confide in trusting adults appears impaired from behind the mask.

6. Facial expressions are integral to human connection. Students and educators have been forced to adapt to the loss of facial cues that are hidden with the use of masks. I am observing many concerning barriers that masking has created within the school environment.

7. Masking is not “harmless,” especially for children and youth with exceptionalities. What may seem like a selfless act of compassion for some is an insurmountable hurdle for others. Masks have made the learning experience considerably harder for students who are hearing

impaired, students who have anxiety, or students who already struggle with social cues, such as those with Autism Spectrum Disorder. As a result, I am witnessing the deepening of inequities among students.

8. Every child has the right to a learning environment that provides the resources needed to acquire the basic skills of reading, writing and arithmetic. Education should be fair and inclusive. As such, we must consider the potential social, psychological, emotional, educational, and economic inequities that are fueled by long-term masking.

9. Primary interactions between students and their educator often centers around "mask etiquette" while being told to put their mask on or to pull their mask up. We are missing pivotal moments where we could be making connections rooted in empathy and compassion. In a time when many are suffering from the effects of social isolation, it is our duty to ensure that all barriers to positive interactions with a trusting adult are removed.

10. The greatest tragedy I am witnessing is the rapid deterioration of the mental well-being of children and youth. Never in my career have I witnessed the level of depression, anxiety and low self-worth like I have witnessed the last two years. I am particularly concerned about the way in which masking has fueled an observed increase in social anxiety. Many of the students I teach have exhibited a negative perception of self, and a crippling fear of judgement. Although these struggles were present prior to the pandemic, it has amplified to debilitating levels.

11. Many have expressed that the mask provides them with a sense of comfort. When mask mandates were removed in March 2022, many students chose to keep wearing it because they openly claimed they felt more comfortable. I believe that mask-wearing has become a coping strategy during times in which children and youth feel anxious. It allows them to feel safe and distanced from those around them. My role as an educator is to help students grow and develop into confident and contributing members of society. In my professional opinion, long-term mask wearing is hindering their ability to grow into balanced individuals who can handle the stressors of life.

12. I spend my days with our youth and they tell me how they feel. They have been taught that they are vectors of disease. They feel unseen, unheard, and they have carried the burden of the pandemic with them daily for the last two and a half years. They have been robbed of a voice.

13. A defining moment for me was when a 16 year old boy stood up in front of the class and announced that he could "no longer live like this anymore." He explained that he could no longer come to school with a mask on for 6 hours a day while the rest of the world moved on. He believed that nobody cared about their well-being, and he questioned if it was because he is not a voting citizen. The class nodded in agreement.

14. Another student stayed after class to tell me that she was terrified to take her mask off because if she did, she would be responsible for the death of the people she loves. She, like many students her age, have internalized a deep sense of social responsibility that is inhibiting their ability to live as healthy individuals.

15. I believe that without irrefutable evidence that the benefit of masking outweighs the risk, we must proceed with caution when implementing long-term mask mandates. We must consider the damaging burden of responsibility that is being placed upon our children and youth. The risks of this pandemic were never to them, but they were forced to carry the burden.

I declare under penalty of perjury under the laws of California that the foregoing is true and correct.

Dated: July 25, 2022

Stacey Lance

DocuSigned by:
By: Stacey Lance
D5F604F2500E4B3...

Stacey Lance

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SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES

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DECLARATION OF G.K.

I, G.K. declare:

1. I am of legal age and am competent to make this declaration.

2. I have personal knowledge of the facts stated herein.

3. I submit this declaration in support of Petitioner's *Ex Parte* Application for Temporary Restraining Order.

4. I am a member of Petitioner organization, Alliance of Los Angeles County Parents.

5. I am withholding my full name from this declaration because of the sensitive nature of the present matter and to protect the identity of my children.

6. I have two children enrolled in school in Los Angeles County.

7. Both of my children, S.K. and M.K., suffered from severe migraines and headaches when masks were required to be worn in school.

8. S.K. and M.K. were treated by West Coast Neurology, Inc. for mask-induced headaches and migraines. A true and correct copy of redacted letters from West Coast Neurology regarding their treatment of my children is attached here as Exhibit __.

9. S.K. and M.K.'s schools refused to accommodate mask exemptions despite the physical pain experienced by S.K. and M.K. Accordingly, we had to pull both of our children out of school and place them into the online program offered by the district.

10. It was emotionally devastating for S.K. and M.K. to go back to online learning and leave their friends and schoolmates.

11. If the mask mandate is reinstated, S.K. and M.K. will again suffer migraines and headaches, and will have to return to online learning to avoid daily physical pain. With online learning comes isolation, depression, anxiety and withdrawal from social connections.

I declare under penalty of perjury under the laws of California that the foregoing is true and correct.

Dated: July 25, 2022

G.K.

By: __/S/_____

G.K.

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ALLIANCE OF LOS ANGELES COUNTY PARENTS

SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES

ALLIANCE OF LOS ANGELES COUNTY PARENTS, an unincorporated association Petitioner and Plaintiff, vs. COUNTY OF LOS ANGELES COUNTY DEPARTMENT OF PUBLIC HEALTH; MUNTU DAVIS, in his official capacity as Health Officer for the County of Los Angeles; BARBARA FERRER, in her official capacity as Director of the County of Los Angeles Department of Public Health; and DOES 1 through 25, inclusive, Respondents and Defendants.	Case No.: **DECLARATION OF E.S.** DEPT. NO.: Dept. HEARING JUDGE: HEARING DATE: HEARING TIME:. DATE ACTION FILED: TRIAL DATE: None Set

DECLARATION OF E.S.

I, E.S., declare:

1. I am of legal age and am competent to make this declaration.

2. I have personal knowledge of the facts stated herein.

3. I submit this declaration in support of Petitioner's *Ex Parte* Application for Temporary Restraining Order.

4. I am a member of Petitioner organization, Alliance of Los Angeles County Parents.

5. I am withholding my full name from this declaration because of the sensitive nature of the present matter and to protect the identity of my children.

6. I have two children enrolled in school in Los Angeles County.

7. My oldest child, R.S., is seven years old. As a result of the previous mask mandates, R.S. suffers speech issues and complains that he cannot hear what his teacher says with a mask on.

8. R.S. is behind academically due to low engagement in distance learning and suffers social anxiety. R.S. does not want to go anywhere where he will be forced to mask. R.S. fears bullying from kids whose parents shame those who do not wear masks, and dreads going to school due to staff following him around and demanding that he pull his mask up over his nose.

9. Despite R.S. telling teachers and staff that he could not breathe in his mask, he was still forced to wear it at school when the mask mandate was in place. He feels he has to choose between struggling to breathe or getting in trouble with school administration.

10. My younger child, D.S., had to skip his first year of preschool due to the mask mandate, giving him a late start. He is now behind academically, and fearful of adults who have hounded him to mask for half his life. D.S. suffers social anxiety after having adults physically force masks on his face without parental consent.

11. If the mask mandate is reinstated, both D.S. and R.S. will again suffer severe social anxiety, fear, and difficulty breathing and learning.

I declare under penalty of perjury under the laws of California that the foregoing is true and correct.

Dated: July 24, 2022

E.S.

By: __/s/_____

E.S.

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SUPERIOR COURT OF THE STATE OF CALIFORNIA
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DECLARATION OF L.M.

I, L.M., declare:

1. I am of legal age and am competent to make this declaration.

2. I have personal knowledge of the facts stated herein.

3. I submit this declaration in support of Petitioner's *Ex Parte* Application for Temporary Restraining Order.

4. I am a member of Petitioner organization, Alliance of Los Angeles County Parents.

5. I am withholding my full name from this declaration because of the sensitive nature of the present matter and to protect the identity of my children.

6. I have three children enrolled in the Palos Verdes Peninsula Unified School District.

7. In the fall of 2021, my six-year-old child, J.Y., was forced to wear a mask all day at school, five days per week.

8. Within one month of school starting, J.Y. developed a severe rash on the lower section of his face. A true and correct copy of a photograph of J.Y. taken in September 2021 is attached here as Exhibit L.

9. I am also attaching a side by side exhibit showing what J.Y.'s face looked like on the first day of school, versus one month into school and full time mask-wearing, marked as Exhibit M.

10. The rash on J.Y.'s face necessitated daily administration of both oral and topical medications.

11. Every day, I applied medicine to J.Y.'s face, and applied diaper cream on top to minimize friction between his skin and the mask. The rash persisted until the mask mandate was dropped.

12. J.Y., who used to be outgoing , now suffers from an incredible amount of social anxiety. He is now only comfortable playing in very small groups of children, but mostly just one on one. This is breaking my heart. J.Y. now sees a therapist to help him cope with his anxiety.

13. If the mask mandate is reinstated, J.Y. will again suffer a painful and embarrassing facial rash and severe social anxiety.

I declare under penalty of perjury under the laws of California that the foregoing is true and correct.

Dated: July 24, 2022

L.M.

By: _____

L.M.

EXHIBIT A

July 13, 2022 Los Angeles County + University of Southern California (LAC+USC) Medical Center Town Hall Video

Available at: https://www.youtube.com/watch?app=desktop&v=_fGuA-nU7EI&t=469s.

EXHIBIT B

NEWS RELEASE

313 N. Figueroa Street, Room 806 | Los Angeles, CA 90012 | (213) 240-8144 | media@ph.lacounty.gov

For Immediate Release:

July 15, 2022

LA County Enters High COVID-19 Community Level and Urges Residents to Take Precautions to Limit Spread of the Highly Transmissible BA.5 Variant - 8,954 New Positive Cases and 16 New Deaths Due to COVID-19 in Los Angeles County

Yesterday, Los Angeles County entered the High Covid Community Level on the Centers for Disease Control and Prevention (CDC) COVID-19 Community Levels framework after hospital admissions exceeded 10 new hospital admissions per 100,000 people. The county's admission rate, at 10.5 hospital admissions per 100,000 people, is an 88% increase when compared to one month ago.

If LA County remains in the High COVID-19 Community Level for two consecutive weeks, universal indoor masking will be implemented on July 29 to help slow the rate of transmission and protect those most vulnerable.

It is important to note that indoor masking is already a required safety measure in many places, including at all healthcare settings, public transit and transit hubs, long-term care settings, shelters and cooling centers, and correctional facilities. Indoor masking also continues to be required at worksites with outbreaks, and is required for all individuals during the 10 days after a COVID diagnosis or exposure when they are around others.

Businesses and employers are allowed to require masks at work, and many have done just that, either by maintaining an indoor masking requirement throughout the pandemic or reinstating one as cases began increasing.

If the county implements universal indoor masking, residents and workers need to wear masks in all indoor public spaces, including shared office spaces, manufacturing facilities, retail stores, and at indoor events. Indoor areas of restaurants and bars, children's programs, and educational settings, would need to institute universal masking as well.

Masking and testing are both powerful tools that can interrupt transmission thereby reducing risk. Masking lowers risk in two ways: It provides what some call "source control" meaning controlling the amount of virus entering the environment right at the source. When people who are infected wear a mask, they exhale far less virus into the air than infected people who do not mask. Masks also provide protection to the individual wearing a mask, by filtering virus from the air they are breathing. When everyone in a room is masked, safety is enhanced, as there is less virus circulating, and less likelihood that any virus circulating will penetrate the physical barrier of a well-fitting, high filtration mask.

Masks that offer beneficial protection provide both good filtration *AND* a good fit or seal around the edges. Well-fitting respirator-type masks such as N95s, KN95s, and KN94s offer the most protection because they are made with thicker materials that do the best job filtering out the virus. Note that individuals should not double mask with a respirator.

Testing to know your status is strongly recommended if exposed, if symptomatic, and right before gathering with others, especially if indoors and when gathering with anyone at higher risk of severe illness should they get infected. If attendees at a gathering have all tested negative prior to getting together, it is much less likely that anyone will be exhaling virus particles into the air. As a reminder, individuals can be contagious for COVID and not have symptoms – that can happen very early in their infection, before symptoms start, or it can happen if an individual has an asymptomatic case of COVID.

"I send my deepest sympathies and wishes of peace and comfort to the many families who have lost a loved one from COVID-19," said Barbara Ferrer, PhD, MPH, MEd, Director of Public Health. "I recognize that when we return to universal indoor masking to help reduce high spread, for many this will feel like a step backwards. For others, indoor masking will feel unnecessary because of the availability of powerful vaccines and therapeutics. The reality is that because we are living with a mutating SARS-CoV-2 virus, there remains uncertainty around the trajectory of the pandemic. The best way to manage the uncertainty and to reduce morbidity and mortality is to remain open to using both the sophisticated tools we now have, such as tests, vaccines, and therapeutics, and the non-pharmaceutical strategies, such as masking, ventilation, and distancing to layer on protections to respond to the conditions at hand. One thing I feel certain about is that,

given the rich toolkit at hand, we should not settle for the existing high rates of morbidity and mortality that disproportionately affect those most vulnerable; we do need to continue to take care of each other. With the high rates of transmission fueling the increased risks, sensible safety precautions that can slow down the spread of the virus are warranted and that includes universal indoor masking."

Today, Public Health reported 16 additional deaths and 8,954 new positive cases. Of the 16 new deaths reported today, one person was between the ages of 50-64, four people were between the ages of 65-79, and 11 people were aged 80 years or older. Of the 16 newly reported deaths, all had underlying health conditions. To date, the total number of deaths in L.A. County is 32,508.

Public Health has reported a total of 3,207,071 positive cases of COVID-19 across all areas of L.A. County. Today's positivity rate is 17.0%.

There are 1,223 people with COVID-19 currently hospitalized. Testing results are available for more than 12,255,903 individuals, with 23% of people testing positive.

A wide range of data and dashboards on COVID-19 from the Los Angeles County Department of Public Health are available on the Public Health website at http://www.publichealth.lacounty.gov including:

- COVID-19 Daily Data (cases, deaths, testing, testing positivity rate, mortality rate, and hospitalizations)
- Gender, Age, Race/Ethnicity and City/Community Cases and Deaths
- Contact Tracing Metrics
- Skilled Nursing Facility Metrics
- Citations due to Health Officer Order Noncompliance
- Outbreaks:
    - Residential Congregate Settings
    - Non-Residential Settings
    - Homeless Service Settings

Always check with trusted sources for the latest accurate information about novel coronavirus:

- Los Angeles County Department of Public Health: http://publichealth.lacounty.gov/media/Coronavirus/
- California Department of Public Health:
- https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/nCOV2019.aspx
- Centers for Disease Control and Prevention: https://www.cdc.gov/coronavirus/2019-ncov/index.html
- Spanish https://espanol.cdc.gov/enes/coronavirus/2019-ncov/index.html
- World Health Organization https://www.who.int/health-topics/coronavirus
- LA County residents can also call 2-1-1

For more information:

	Total Cases	
Laboratory Confirmed Cases	3,207,071	
-- Los Angeles County (excl. LB and Pas)	3,034,156	
-- Long Beach	139,720	
-- Pasadena	33,195	
Deaths	32,508	
-- Los Angeles County (excl. LB and Pas)	30,799	
-- Long Beach	1,290	

-- Pasadena	419	
Age Group (Los Angeles County Cases Only-excl LB and Pas)		
- 0 to 4	94190	
- 5 to 11	263013	
- 12 to 17	257676	
- 18 to 29	670625	
- 30 to 49	974288	
- 50 to 64	506615	
- 65 to 79	200892	
- over 80	64670	
- Under Investigation	2187	
Gender (Los Angeles County Cases Only-excl LB and Pas)		
- Female	1551910	
- Male	1399153	
- Other	1388	
- Under Investigation	81705	
Race/Ethnicity (Los Angeles County Cases Only-excl LB and Pas)		
- American Indian/Alaska Native	5646	
- Asian	208512	
- Black	153606	
- Hispanic/Latino	1332277	
- Native Hawaiian/Pacific Islander	15490	
- White	409629	
- Other	341278	
- Under Investigation	567718	
Hospitalization (Los Angeles County Cases Only-excl LB and Pas)		
- Hospitalized (Ever)***	143,633	
Deaths Race/Ethnicity (Los Angeles County Cases Only-excl LB and Pas)		
- American Indian/Alaska Native	72	
- Asian	3861	
- Black	2868	
- Hispanic/Latino	15730	
- Native Hawaiian/Pacific Islander	111	
- White	7761	
- Other	310	
- Under Investigation	86	

CITY / COMMUNITY**	Cases	Case Rate
City of Agoura Hills	5596	26797
City of Alhambra	20337	23450
City of Arcadia	10273	17788
City of Artesia	4809	28634
City of Avalon	65	1680
City of Azusa	15143	30262
City of Baldwin Park	25325	32989
City of Bell	15001	41289
City of Bell Gardens	15098	35054
City of Bellflower	25970	33408
City of Beverly Hills	9941	28798
City of Bradbury	67	6268
City of Burbank	26944	25139
City of Calabasas	4861	19985
City of Carson	29390	31317
City of Cerritos	10489	20950
City of Claremont	8123	22265
City of Commerce*	4937	37776
City of Compton	35507	35541
City of Covina	16328	33301
City of Cudahy	10788	44309
City of Culver City	9371	23507
City of Diamond Bar	10931	19005
City of Downey	39830	34858
City of Duarte	5970	27117
City of El Monte	36234	30898
City of El Segundo	3486	20767
City of Gardena	18507	30186
City of Glendale	50587	24498
City of Glendora	13339	25280
City of Hawaiian Gardens	4507	30710
City of Hawthorne	25202	28385
City of Hermosa Beach	4005	20361
City of Hidden Hills	337	17831
City of Huntington Park	23623	39713

City of Industry	452	103432
City of Inglewood	32498	28612
City of Irwindale	591	40507
City of La Canada Flintridge	3732	18035
City of La Habra Heights	170	3116
City of La Mirada	11875	23942
City of La Puente	13944	34263
City of La Verne	7971	23950
City of Lakewood	22147	27559
City of Lancaster*	55192	34160
City of Lawndale	9104	27084
City of Lomita	5034	24285
City of Lynwood*	26778	37167
City of Malibu	2525	19482
City of Manhattan Beach	6239	17331
City of Maywood	11287	40240
City of Monrovia	9623	24802
City of Montebello	21359	33179
City of Monterey Park	13941	22391
City of Norwalk	36364	33789
City of Palmdale	57591	36228
City of Palos Verdes Estates	1835	13570
City of Paramount	20332	36292
City of Pico Rivera	23301	36247
City of Pomona	56276	36090
City of Rancho Palos Verdes	6114	14303
City of Redondo Beach	12728	18528
City of Rolling Hills	234	12062
City of Rolling Hills Estates	1208	14890
City of Rosemead	12709	22961
City of San Dimas*	9273	26866
City of San Fernando	11305	45933
City of San Gabriel	9041	22076
City of San Marino	1914	14416
City of Santa Clarita	62072	28160
City of Santa Fe Springs	6977	37993

City of Santa Monica	21909	23699
City of Sierra Madre	1879	17099
City of Signal Hill	3335	28270
City of South El Monte	7148	34226
City of South Gate	41599	42381
City of South Pasadena	5166	19829
City of Temple City	7869	21586
City of Torrance	27782	18612
City of Vernon	328	156938
City of Walnut	5957	19511
City of West Covina	33381	30841
City of West Hollywood	9653	26124
City of Westlake Village	337	4031
City of Whittier	26602	30426
Los Angeles	1321698	32678
Los Angeles - Adams-Normandie	2839	34614
Los Angeles - Alsace	3968	31884
Los Angeles - Angeles National Forest	6	15000
Los Angeles - Angelino Heights	716	28617
Los Angeles - Arleta	14859	43232
Los Angeles - Atwater Village	4150	28297
Los Angeles - Baldwin Hills	8623	27704
Los Angeles - Bel Air	1959	23241
Los Angeles - Beverly Crest	2912	23250
Los Angeles - Beverlywood	3605	27367
Los Angeles - Boyle Heights*	35778	41179
Los Angeles - Brentwood	7215	23308
Los Angeles - Brookside	124	21343
Los Angeles - Cadillac-Corning	2076	29153
Los Angeles - Canoga Park	22183	33977
Los Angeles - Carthay	3603	25085
Los Angeles - Central	15625	40072
Los Angeles - Century City	3064	23952
Los Angeles - Century Palms/Cove	14335	42454
Los Angeles - Chatsworth	10776	29076
Los Angeles - Cheviot Hills	2108	22985

Los Angeles - Chinatown	2326	28999
Los Angeles - Cloverdale/Cochran	4540	31196
Los Angeles - Country Club Park	4146	27361
Los Angeles - Crenshaw District	4535	32793
Los Angeles - Crestview	3292	28958
Los Angeles - Del Rey	7181	23988
Los Angeles - Downtown*	13683	49744
Los Angeles - Eagle Rock	11360	28695
Los Angeles - East Hollywood	8221	28070
Los Angeles - Echo Park	3943	27659
Los Angeles - El Sereno	14805	35412
Los Angeles - Elysian Park	1569	27468
Los Angeles - Elysian Valley	3126	30734
Los Angeles - Encino	12706	28128
Los Angeles - Exposition	1105	33223
Los Angeles - Exposition Park	15794	35163
Los Angeles - Faircrest Heights	1051	29194
Los Angeles - Figueroa Park Square	3283	37645
Los Angeles - Florence-Firestone	20632	43486
Los Angeles - Glassell Park	9322	29496
Los Angeles - Gramercy Place	3535	32841
Los Angeles - Granada Hills	18391	31605
Los Angeles - Green Meadows	9098	42306
Los Angeles - Hancock Park	4033	23669
Los Angeles - Harbor City	7975	27434
Los Angeles - Harbor Gateway	13546	31069
Los Angeles - Harbor Pines	524	21752
Los Angeles - Harvard Heights	5549	30768
Los Angeles - Harvard Park	16061	42338
Los Angeles - Highland Park	14830	30646
Los Angeles - Historic Filipinotown	4744	34203
Los Angeles - Hollywood	18603	27256
Los Angeles - Hollywood Hills	6482	22022
Los Angeles - Hyde Park	10175	35650
Los Angeles - Jefferson Park	2784	34485
Los Angeles - Koreatown	14366	27791

Los Angeles - Lafayette Square	1422	31191
Los Angeles - Lake Balboa	13853	32822
Los Angeles - Lakeview Terrace	5081	38689
Los Angeles - Leimert Park	4880	32032
Los Angeles - Lincoln Heights	11208	34384
Los Angeles - Little Armenia	2661	33159
Los Angeles - Little Bangladesh	7659	27023
Los Angeles - Little Tokyo	1232	39323
Los Angeles - Longwood	1491	34642
Los Angeles - Los Feliz	4856	22473
Los Angeles - Manchester Square	2697	31596
Los Angeles - Mandeville Canyon	675	21607
Los Angeles - Mar Vista	9089	21400
Los Angeles - Marina Peninsula	818	18761
Los Angeles - Melrose	22842	29399
Los Angeles - Mid-city	4003	26633
Los Angeles - Miracle Mile	4194	23319
Los Angeles - Mission Hills	10372	42995
Los Angeles - Mt. Washington	7211	29865
Los Angeles - North Hills	22038	35790
Los Angeles - North Hollywood	51746	34174
Los Angeles - Northridge	21827	31272
Los Angeles - Pacific Palisades	4316	20271
Los Angeles - Pacoima	34476	44786
Los Angeles - Palisades Highlands	804	20905
Los Angeles - Palms	9951	22679
Los Angeles - Panorama City	29455	39143
Los Angeles - Park La Brea	2699	19875
Los Angeles - Pico-Union	14715	35168
Los Angeles - Playa Del Rey	500	15645
Los Angeles - Playa Vista	2885	26354
Los Angeles - Porter Ranch	8839	24837
Los Angeles - Rancho Park	1869	28491
Los Angeles - Regent Square	751	27014
Los Angeles - Reseda	27517	35915
Los Angeles - Reseda Ranch	1573	33930

Los Angeles - Reynier Village	1042	24645
Los Angeles - San Pedro*	22414	28722
Los Angeles - Shadow Hills	1100	24764
Los Angeles - Sherman Oaks	23098	26472
Los Angeles - Silverlake	11527	26148
Los Angeles - South Carthay	2694	25427
Los Angeles - South Park	15607	41113
Los Angeles - St Elmo Village	1674	36518
Los Angeles - Studio City	5826	25963
Los Angeles - Sun Valley	20420	38908
Los Angeles - Sunland	5808	28459
Los Angeles - Sycamore Square	154	23802
Los Angeles - Sylmar*	36957	44852
Los Angeles - Tarzana	8883	28770
Los Angeles - Temple-Beaudry	12158	30794
Los Angeles - Thai Town	2494	25426
Los Angeles - Toluca Lake	2136	24540
Los Angeles - Toluca Terrace	402	30781
Los Angeles - Toluca Woods	434	23358
Los Angeles - Tujunga	7627	27425
Los Angeles - University Hills	789	23010
Los Angeles - University Park	10223	37234
Los Angeles - Valley Glen	9759	32513
Los Angeles - Valley Village	7098	28714
Los Angeles - Van Nuys*	33125	35544
Los Angeles - Venice	7888	23279
Los Angeles - Vermont Knolls	6642	38616
Los Angeles - Vermont Square	3349	43738
Los Angeles - Vermont Vista	16551	40186
Los Angeles - Vernon Central	22790	43829
Los Angeles - Victoria Park	2496	29718
Los Angeles - View Heights	874	23660
Los Angeles - Watts	17205	40317
Los Angeles - Wellington Square	1588	32309
Los Angeles - West Adams	9552	34571
Los Angeles - West Hills	10418	25695

Los Angeles - West Los Angeles	9550	25375
Los Angeles - West Vernon	21923	40868
Los Angeles - Westchester	11088	21487
Los Angeles - Westlake	18381	30968
Los Angeles - Westwood	13831	25561
Los Angeles - Wholesale District*	17843	49387
Los Angeles - Wilmington	20938	37067
Los Angeles - Wilshire Center	14421	28744
Los Angeles - Winnetka	17190	33194
Los Angeles - Woodland Hills	17401	25569
Unincorporated - Acton	1673	20989
Unincorporated - Agua Dulce	866	20827
Unincorporated - Altadena	9660	22146
Unincorporated - Anaverde	355	23541
Unincorporated - Angeles National Forest	86	6908
Unincorporated - Arcadia	1774	22228
Unincorporated - Athens-Westmont	15424	36341
Unincorporated - Athens Village	2478	50602
Unincorporated - Avocado Heights	2414	35631
Unincorporated - Azusa	5375	33756
Unincorporated - Bassett	5195	35061
Unincorporated - Bouquet Canyon	170	15843
Unincorporated - Bradbury	83	76852
Unincorporated - Canyon Country	3050	39467
Unincorporated - Castaic*	8545	31426
Unincorporated - Cerritos	162	27598
Unincorporated - Charter Oak	2	10000
Unincorporated - Claremont	114	16239
Unincorporated - Covina	5370	31928
Unincorporated - Covina (Charter Oak)	4105	31231
Unincorporated - Del Aire	1054	23993
Unincorporated - Del Rey	115	36164
Unincorporated - Del Sur	609	25217
Unincorporated - Desert View Highlands	818	32812
Unincorporated - Duarte	1671	37737
Unincorporated - East Covina	82	24924

Unincorporated - East La Mirada	1381	26096
Unincorporated - East Lancaster	43	37719
Unincorporated - East Los Angeles	51884	41418
Unincorporated - East Pasadena	349	5451
Unincorporated - East Rancho Dominguez	5383	35165
Unincorporated - East Whittier	1213	22861
Unincorporated - El Camino Village	2092	23797
Unincorporated - El Monte	53	36552
Unincorporated - Elizabeth Lake	235	14148
Unincorporated - Florence-Firestone	27817	42990
Unincorporated - Franklin Canyon	1	8333
Unincorporated - Glendora	180	27273
Unincorporated - Hacienda Heights	13660	24425
Unincorporated - Harbor Gateway	5	500000
Unincorporated - Hawthorne	661	26293
Unincorporated - Hi Vista	145	13206
Unincorporated - Kagel/Lopez Canyons	561	39731
Unincorporated - La Crescenta-Montrose	3551	17933
Unincorporated - La Habra Heights	17	2515
Unincorporated - La Rambla	658	31711
Unincorporated - La Verne*	562	27549
Unincorporated - Ladera Heights	1575	22274
Unincorporated - Lake Hughes	173	25898
Unincorporated - Lake Los Angeles	3658	28151
Unincorporated - Lake Manor	394	23981
Unincorporated - Lakewood	1	877
Unincorporated - Lennox	6883	30534
Unincorporated - Leona Valley	286	16334
Unincorporated - Littlerock	1273	31659
Unincorporated - Littlerock/Juniper Hills	292	22513
Unincorporated - Littlerock/Pearblossom	1134	31774
Unincorporated - Llano	106	12087
Unincorporated - Marina del Rey	2036	21634
Unincorporated - Miracle Mile	0	0
Unincorporated - Monrovia	1010	26024
Unincorporated - Newhall	92	41818

Unincorporated - North Lancaster	358	29883
Unincorporated - North Whittier	2647	31663
Unincorporated - Northeast San Gabriel	4992	20769
Unincorporated - Padua Hills	32	14884
Unincorporated - Palmdale	222	26366
Unincorporated - Palos Verdes Peninsula	85	13688
Unincorporated - Pearblossom/Llano	345	17638
Unincorporated - Pellissier Village	334	53958
Unincorporated - Placerita Canyon	17	3696
Unincorporated - Pomona	152	7843
Unincorporated - Quartz Hill	3429	26569
Unincorporated - Rancho Dominguez	1031	38745
Unincorporated - Roosevelt	236	25349
Unincorporated - Rosewood	433	33670
Unincorporated - Rosewood/East Gardena	458	38391
Unincorporated - Rosewood/West Rancho Dominguez	1181	35138
Unincorporated - Rowland Heights	10451	20483
Unincorporated - San Clemente Island	0	0
Unincorporated - San Francisquito Canyon/Bouquet Canyon	38	4429
Unincorporated - San Jose Hills	6895	34098
Unincorporated - San Pasqual	79	3882
Unincorporated - Sand Canyon	53	17208
Unincorporated - Santa Catalina Island	700	262172
Unincorporated - Santa Monica Mountains*	3328	17872
Unincorporated - Saugus	371	239355
Unincorporated - Saugus/Canyon Country	103	28933
Unincorporated - South Antelope Valley	101	22198
Unincorporated - South El Monte	672	37437
Unincorporated - South San Gabriel	2409	27226
Unincorporated - South Whittier	18749	31659
Unincorporated - Southeast Antelope Valley	208	26633
Unincorporated - Stevenson Ranch	4951	23614
Unincorporated - Sun Village	1941	32157
Unincorporated - Sunrise Village	456	35185
Unincorporated - Twin Lakes/Oat Mountain	366	22075
Unincorporated - Val Verde	925	27954

Unincorporated - Valencia	803	26139
Unincorporated - Valinda	8197	35073
Unincorporated - View Park/Windsor Hills	3026	26008
Unincorporated - Walnut Park	6593	40841
Unincorporated - West Antelope Valley	153	10126
Unincorporated - West Carson	6483	29353
Unincorporated - West Chatsworth	4	33333
Unincorporated - West LA	656	68908
Unincorporated - West Puente Valley	3537	35963
Unincorporated - West Rancho Dominguez	425	31273
Unincorporated - West Whittier/Los Nietos	9101	33801
Unincorporated - Westfield/Academy Hills	208	16000
Unincorporated - Westhills	155	18474
Unincorporated - White Fence Farms	795	21586
Unincorporated - Whittier	832	21987
Unincorporated - Whittier Narrows	69	575000
Unincorporated - Willowbrook	14711	42136
Unincorporated - Wiseburn	1632	27078
- Under Investigation	74399	

For more information:

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EXHIBIT C

Hospitalizations

Hospitalization LAC cases only (excl Long Beach and Pasadena)	
Hospitalized (Ever)	145,645

Monthly estimates of the percent of confirmed hospitalized COVID-19 cases with COVID-associated illness and with incidentally detected COVID, Los Angeles County[1]

Month of hospital admission	Percent of hospitalized cases with COVID-associated illness[1]	Percent of hospitalized cases with incidental COVID detection
Aug-21	81%	19%
Sep-21	71%	29%
Oct-21	71%	29%
Nov-21	74%	26%
Dec-21	62%	38%
Jan-22	58%	42%
Feb-22	49%	51%
Mar-22	40%	60%
Apr-22	39%	61%
May-22	42%	58%

Table updated monthly. Updated June 30, 2022

(1) COVID-associated illness is determined by ICD-10 diagnosis codes assigned to a patient upon discharge. The COVID-associated illness definition includes patients positive for COVID-19 with a pneumonia, acute respiratory distress syndrome, or acute cardiopulmonary diagnosis. A national standard definition for COVID-associated illness has not been developed; caution should be applied when comparing these estimates to estimates from other jurisdictions which may use different methods.

EXHIBIT D

United States Senate
COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS
WASHINGTON, DC 20510–6300

June 10, 2021

Delivered via E-Mail

Dr. Rochelle Walensky
Director
Centers for Disease Control and Prevention
1600 Clifton Road
Atlanta, GA 30329

Dear Dr. Walensky:

We write today out of concern that you may have given incomplete or inaccurate testimony during the May 11, 2021, U.S. Senate Committee on Health, Education, Labor, and Pensions (Committee) hearing regarding the clearance process for the Centers for Disease Control and Prevention's (CDC) *Operational Strategy for K-12 Schools* ("School Re-Opening Guidance" or "Guidance").[1] Specifically, your testimony appears to be inconsistent with representations in your April 22, 2021, letter to Ranking Member Burr and with email correspondence between the CDC, Biden Administration political appointees, and teachers' unions that was recently made public.

The Committee's May 11th hearing was the first opportunity for Senators to question you about the school re-opening guidance since the extent of the CDC's cooperation with the teachers' unions was made public. You testified that edits from the teachers' unions were limited to addressing "what happens if you have immunocompromised teachers." You further testified that the level of collaboration between the teachers' unions and the CDC was routine, "[a]s a matter of practice, the CDC engages with stakeholders, with consumers who take our guidance, who use our guidance before it is finalized so we can understand whether it addresses their needs. For our school guidance, we did that with 50 different stakeholders, over 50, actually."

Compared to the emails between the CDC and the teachers' unions, your testimony seems – at a minimum incomplete – if not inaccurate. The email correspondence makes clear that the involvement of the teachers' unions went well beyond accommodations for high-risk teachers. Equally troubling, your testimony was also inconsistent with the representations in your April 22, 2021, letter responding to questions Ranking Member Burr had concerning the CDC's

[1] Operational Strategy for K-12 Schools through Phased Mitigation | CDC; Science Brief: Transmission of SARS-CoV-2 in K-12 schools | CDC; COVID-19 - School Reopening: Indicators to Inform Decision Making | CDC

guidance for vaccinated people. In the letter you outlined CDC's "Emergency Response Clearance Protocol" which was "applicable to all CDC-authored or CDC-branded information products related to an active or ongoing response, such as the COVID-19 response." At no point in the clearance process described in your letter do groups outside of the federal government, such as teachers' unions, edit CDC's pre-decisional, deliberative draft guidance.

Americans need to be able to trust the CDC to give them accurate, unbiased health information, especially during the COVID-19 pandemic. That your agency would give teachers' unions privileged access to the agency's internal decision-making process on an issue as critical as school re-openings is a betrayal of that trust. That you then would appear to try to avoid Congressional scrutiny by providing incomplete testimony is deeply troubling. As a first step to rebuilding public confidence, the CDC needs be transparent about how the teachers' unions came to have such extraordinary input in school re-opening guidance. As CDC Director, you need explain and, if necessary, correct the inconsistencies between your testimony, your letter, and the CDC emails. For these reasons, please provide the following information and documents by June 23, 2021:

Questions Regarding CDC's Collaboration with Teachers' Unions

1. On what date did the CDC first share its draft guidance school re-opening guidance with the American Federation of Teachers (AFT) and the National Education Association (NEA)?

2. Please identify the CDC personnel who shared the draft guidance with the AFT and the NEA?

3. Did the Office of Management and Budget review the CDC's draft re-opening guidance before the AFT and the NEA?

4. Please identify all non-governmental stakeholders that received the draft school re-opening guidance either on the same day or before the AFT and NEA received the draft guidance.

5. According to a January 22, 2021, email, CDC's Principal Deputy Incident Manager Dr. Michael Beach expected the school re-opening guidance to be publicly released during the week of January 25. Please answer the following:

    a. Why did CDC delay posting the guidance until February 12, 2021?
    b. Who at the CDC ordered the release of the guidance be delayed?
    c. Please identify any individuals outside of the CDC who requested or ordered the CDC to delay posting the guidance.
    d. Please provide a copy of the version of the school re-opening guidance that Dr. Beach refers to in his January 22 email.

6. Please identify all meetings or phone calls between the CDC and the AFT or the NEA. For each meeting and phone call, please provide the following:

    a. CDC personnel who attended;
    b. Other federal government personnel who attended;
    c. White House personnel who attended;
    d. AFT and NEA representatives, personnel, and members who attended; and
    e. Any written materials shared by the AFT or NEA related to the meetings or phone calls.

7. Please identify "the parents" that you testified CDC engaged with prior to finalizing its school reopening guidance. For each individual please provide the following information:

    a. The phone number and email address used to communicate with the parent;
    b. The date the CDC first contacted the parent;
    c. Whether the CDC shared its draft school re-opening guidance with the parent, if so include the date the parent received the draft guidance;
    d. Whether the parent submitted edits to the draft re-opening guidance, if so include the date the parent submitted edits;
    e. Whether the parent's edits or feedback were accepted, in whole or in part, by CDC;
    f. How the parent was identified for CDC engagement, including whether anyone outside of the CDC instructed or requested CDC engage with the parent; and
    g. Meetings between the parent and CDC personnel regarding the school re-opening guidance, include the date and a list of all meetings attendees.

8. Please identify the "over 50" different stakeholders that you testified CDC engaged with prior to finalizing its school re-opening guidance. For each stakeholder please provide the following information:

    a. The date the CDC first contacted the stakeholder;
    b. Whether the CDC shared its draft school re-opening guidance with the stakeholder, if so include the date the stakeholder received the draft guidance;
    c. Whether the stakeholder submitted edits to the draft re-opening guidance, if so include the date the stakeholder submitted edits;
    d. Whether the stakeholder's edits or other feedback were accepted, in whole or in part, by CDC;
    e. How the stakeholder was identified, including whether anyone outside of the CDC instructed or requested CDC engage with the stakeholder; and
    f. Any meetings between the stakeholder and CDC personnel regarding the school re-opening guidance, include a list of all attendees to any meetings.

9. All documents and communications between or among the following CDC officials and any employees or members of the AFT and NEA:

a. CDC Director Dr. Rochelle Walensky;
b. Principal Deputy Director Dr. Anne Schuchat;
c. CDC Chief of Staff Sherri Berger;
d. Deputy Director for Infectious Disease Dr. Jay Butler;
e. Former NCIRD Director Dr. Nancy Messonnier;
f. CDC Incident Manager Dr. Henry Walke; and
g. CDC Principal Deputy Incident Manager Dr. Michael Beech.

Questions Concerning the Accuracy of Your April 22nd Letter and May 11th Hearing Testimony

1. Please either reaffirm that your May 11th hearing testimony was a complete and accurate account of the involvement of the teachers' unions in the development of CDC's school re-opening guidance, or submit a statement amending your testimony and explain why you provided incomplete information to the Committee.

2. You testified that the edits from the teacher's unions were limited to addressing "what happens if you have immunocompromised teachers." Is that a complete and accurate statement of the teachers' unions' involvement in drafting CDC's school reopening guidance?

3. Please either reaffirm that the representations in your April 22nd letter were a complete and accurate description of CDC's "Emergency Response Clearance Protocol" or submit a statement amending the letter and explain why you provided different information to the Committee. For example, please explain how it is appropriate for teachers' unions to receive a draft of the guidance and how this is consistent with your April 22nd letter.

4. Explain the clearance process for CDC's letters to Congress. Include in your answer how such documents are reviewed by the CDC, the Department of Health and Human Services (HHS), and the White House and by whom.

5. Please identify all CDC, HHS, and White House personnel, including political appointees, senior officials, employees, and contractors, who prepared, drafted, edited, or reviewed your April 22nd letter.

Thank you for your prompt attention to this matter.

Sincerely,

Richard Burr
Ranking Member
Committee on Health, Education,
Labor and Pensions

Susan M. Collins
Ranking Member
Subcommittee on Primary Health and
Retirement Security

EXHIBIT E

LAUSD/UTLA TENTATIVE AGREEMENT
FOR 2021-2022 REOPENER

SEPTEMBER 21, 2021

This tentative Agreement is made and entered into this 21st day of September, 2021 by and between the Board of Education of the Los Angeles Unified School District ("District") and United Teachers Los Angeles ('UTLA"). The District and UTLA have met and negotiated in good faith and completed their negotiations for this 2021-2022 Reopener Agreement.

I. The parties agree to the following with regards to wages and salary:

   A. All UTLA bargaining unit members shall receive a 5% on-schedule salary increase applied to all pay scale groups and levels of the base salary tables, effective, July 1, 2021.

   B. All UTLA bargaining unit members shall receive a $2,000 one-time stipend in consideration for providing the additional services outlined in this agreement. Any bargaining unit members not working full-time will receive the stipend on a pro-rated basis. This provision is applicable to all bargaining unit members active as of the date of this agreement.

   C. All UTLA members who worked at least ninety (90) days during the 2020-2021 school year shall receive a $500 one-time technology stipend. This provision is applicable to all bargaining unit members active as of the date of this agreement.

   D. Substitute unit members required to quarantine by the District during the 2021-2022 school year shall have the number of service days (100) required to qualify for District provided healthcare in 2022-2023 reduced by the number of required quarantine days upon request.

II. The parties further agree to the following conditions to ensure a healthy and safe return to full time in person teaching and learning for LAUSD educators and students:

   A. The District shall make every effort to conduct weekly COVID-19 testing of all students and staff through December 17, 2021. During this time, the District shall continue to make free COVID-19 testing available to students and staff during normal work hours, with every effort made to ensure a result turnaround time of no more than 48 hours. Thereafter, the District shall make every effort to conduct weekly COVID-19 testing of all unvaccinated individuals. The parties agree to meet and bargain over potential changes to this requirement at the request of either party after December 1, 2021.

   B. The District shall ensure all students, staff, and visitors are screened for symptoms prior to entering a school, and shall continue utilizing the existing Daily Pass system or comparable successor system for employees, students, and visitors entering a school or worksite. The District shall notify and meet with UTLA at least two weeks in advance of implementing a comparable successor system.

C. The District shall provide UTLA with a written checklist (Attachment B) of the required actions to be taken by both site-based administrators and the District community engagement teams when a student or employee at a school or worksite has tested positive for COVID-19, when a student or employee is quarantined, and when a student or employee is cleared for return. The parties recognize that circumstances related to COVID-19 continue to change and may require adjustments to the procedures in Attachment B. The District agrees to meet and consult with UTLA prior to changing the procedures in Attachment B.

D. The District shall make every effort to notify bargaining unit members in writing within 24 hours when a student in their classroom or a student on their caseload has tested positive for COVID-19. The name of the student will be withheld.

E. For purposes of providing Continuity of Learning, the District shall make every effort to notify all unit members in writing within 24 hours when a student(s) in their classroom or a student(s) on their caseload is required to quarantine.

F. Subject to all applicable privacy and confidentiality laws, the District shall provide UTLA with a weekly list of each school where a student has tested positive for COVID-19, the number of students who tested positive for COVID-19 and the number of newly quarantined students at each school.

G. The use of masks shall be enforced at all District facilities. The District will maintain an adequate supply of face masks to facilitate compliance. In accordance with LACDPH Guidelines, alternative protective strategies may be adopted to accommodate students who cannot use a mask for reasons related to their identified disability or accommodation. The parties agree to meet and bargain over potential changes to this requirement at the request of either party after December 1, 2021. Additional personal protective equipment (PPE) for employees may include:
   1. Medical grade masks
   2. Face shields
   3. Gloves
   4. Gowns
   5. Air purifiers

H. The District shall maintain air filtration systems with a minimum efficiency reporting value (MERV) of 13 or better, or achieve the same minimum efficiency of filtration by using HVAC systems in conjunction with portable HEPA air purification devices that results in air quality equal to or better than what is provided by MERV-13 filtration systems. The LAUSD Air Quality Task Force shall meet at least once in October and at least once in November to review data and analyze the efficacy of a transition from MERV 13 filtration systems to the use of HVAC systems and air purification devices if and when such a transition happens. The parties agree to meet and bargain over potential changes to this provision at the request of either party after December 1, 2021.

I. Back to School Night and parent-educator conferences shall be conducted virtually. IEP team meetings may be held virtually for parents who choose to use this alternative means of meeting participation. For parents who choose to have an IEP team meeting in person, the space requirements must be in alignment with current LACDPH

guidelines. The parties agree to meet and bargain over potential changes to this requirement at the request of either party after December 1, 2021.

J. Local School Leadership Councils at each school shall make every effort to develop alternative student eating procedures for inclement weather days, with the goal of preventing any students from eating in classrooms.

K. Evaluations for permanent UTLA bargaining unit members who have not received a below standard evaluation in the last five years shall be suspended for the 2021-2022 school year.

L. Livestreaming for quarantined students shall not be considered as part of the evaluation for classroom teachers being evaluated. At the request of the classroom teacher, formal observations may be rescheduled if the observation was to occur on a day/class period when the teacher must provide livestream access.

M. The parties agree to resume meetings of the District Assessment Committee. The Committee shall meet no less than two (2) times during the 2021-2022 school year. The Committee shall be comprised of four (4) members from UTLA, four (4) parents (two (2) appointed by the District and two (2) appointed by UTLA), the LAUSD Chief Academic Officer or designee, and up to three (3) additional District appointees. The Committee shall be charged with the following:

1. Compile a list of all District assessments including the purpose, efficacy, length of time to administer and review and cost.
2. Make recommendations regarding the purpose, types and numbers of and time spent on District assessments.

III. The parties further agree to the attached Continuity of Learning Plan (Attachment A), which reflects agreement on the following concepts:

A. In cases where a student(s) is quarantined, the classroom teacher shall provide in-person instruction for students physically in attendance, while providing access to live virtual instruction for quarantined students in accordance with Attachment A. This live virtual access shall only be provided to students subject to COVID-19 quarantine protocols.

B. In cases where an entire class or school is quarantined or physically closed for COVID-19 related reasons, the classroom teacher, or a substitute if the classroom teacher is directly affected, shall provide live virtual instruction for all students in accordance with Attachment A.

C. The District and UTLA recognize that the classroom teacher will provide live access to their classrooms for quarantined students, but the degree of live interaction with quarantined students shall be determined by the teacher in order to ensure high-quality instruction for and the supervision of in-person students.

D. Classroom teachers providing livestream access for quarantined students or live virtual instruction if an entire class is quarantined shall not be held responsible for technology problems that hinder or prevent livestream access for quarantined students or live virtual instruction if an entire class is quarantined, including, but not limited to, students being unable to get access to the classroom. Classroom teachers

will notify the site administrator/designee as soon as practically possible when classroom technology issues prevent student access.

E. The District shall not record classroom teachers providing instruction under any circumstances without prior approval of the classroom teacher, including, but not limited to, when they are providing access to live virtual instruction for quarantined students.

F. The District shall inform students, and the parents/guardians of students that they are not allowed to record classroom teachers providing instruction under any circumstances without prior approval of the classroom teacher. Students, and the parents/guardians of students, shall be required to honor all provisions of the LAUSD Responsible Use Policy for District Computer Systems.

G. The District shall provide online professional development to classroom teachers and substitute teachers on the utilization of technology required to provide quarantined students with livestream access or live virtual instruction if an entire class is quarantined. If provided for voluntary participation outside of the workday, participants will be paid at the training rate of $50 per hour. Any recorded online professional development shall include embedded captioning and ASL interpretation.

IV. The parties further agree to the following in support of students needing instruction through the City of Angels Online Independent Study program and in recognition of the shortage of available classroom teachers for the program:

A. Eligible UTLA bargaining unit members seeking reasonable accommodations will be engaged in the interactive process to determine whether an accommodation is feasible and available, including remote work. Where the determined reasonable accommodation is in the form of remote work, the member shall be assigned to available positions within the online program. In the event the employee was required to utilize illness while engaging in the interactive process, the illness days will be reinstated if the accommodation is granted and if all appropriate medical documentation which substantiates the need for an accommodation and which specifies work restrictions and duration was submitted prior to August 23, 2021.

B. To the extent possible and in alignment with student and program needs, an option to volunteer for such a temporary assignment to the City of Angels Online Independent Study Program during the 2021-2022 school year shall be offered to all UTLA bargaining unit members. In the case of a voluntary assignment to City of Angels, a teacher previously exempted from displacement would fill any temporary vacancy created at the sending school.

C. If additional bargaining unit members are needed beyond those who volunteer in accordance with IV.B above, the District may temporarily assign teachers from over-staffed locations to the City of Angels Online Independent Study program in alignment with student and program needs during the 2021-2022 school year. No school shall have more than three (3) bargaining unit members temporarily assigned to City of Angels in accordance with this provision, and determination as to which bargaining unit member is temporarily assigned shall be based on seniority in elementary schools and seniority within over-teachered departments at secondary schools.

D. The parties agree to immediately commence a Student Enrollment Taskforce. The Taskforce shall be comprised of four (4) bargaining unit members from UTLA, the LAUSD Chief Human Resources Officer or designee, the LAUSD Chief of Special Education, Equity and Access or designee and up to two (2) additional District appointees. The Taskforce shall be charged with addressing staffing issues related to the return of students to their home school from the City of Angels Online Independent Study Program and/or enrollment increases at their home school.

E. All bargaining unit members temporarily assigned to this program shall have the right to return to their previous school location at the beginning of the 2022-2023 school year, with displacement rights if necessary, not to supersede District seniority per Article XI, section 6.0.

V. Term of Agreement

A. This non-precedent setting MOU shall be effective upon signing and ratification by UTLA membership and adoption by the LAUSD Board of Education and shall be implemented according to the terms above. The provisions of this Sideletter, with the exception of Sections I.A, I.D, & IV.E, shall expire on June 30, 2022.

B. All components of the current LAUSD/UTLA Collective Bargaining Agreement and the Sideletter Between LAUSD & UTLA For The Return To Traditional Instruction For The 2021-2022 School Year (June 9, 2021) shall remain in full effect except for those provisions modified by the terms of this Agreement. The parties acknowledge that certain terms of the Agreement may need to be implemented using electronic or remote platforms for the duration of this agreement.

C. This Agreement closes all reopeners from the parties 2019-2022 Successor Agreement.

Cecily Myart-Cruz

UTLA

September 21, 2021

Date

LAUSD

September 21, 2021

Date

ATTACHMENT A

COVID-19 CONTINUITY OF LEARNING PLAN FOR 2021-2022
SEPTEMBER 21, 2021

United Teachers Los Angeles and Los Angeles Unified are committed to ***every student continuing to receive high-quality instruction throughout the 2021-2022 school year***.

The following guidance is provided to ensure continuity of instruction and learning for all students in the event of COVID-19-related absences that may result in disruption of in-person instruction.

The plans that follow provide an outline of how instruction is to be delivered to students in Pre-K through Adult Education under 3 different circumstances:

1. Whole class, including teacher, is quarantined
2. Teacher is present but one or more students are quarantined
3. Teacher and possibly one or more students are quarantined, but other students are present in school with a substitute

SELF-CONTAINED CLASSROOMS (EEC, EARLY EDUCATION, PRE-K, ELEMENTARY, & SPECIAL EDUCATION)	
1. WHOLE CLASS, INCLUDING TEACHER, IS QUARANTINED	Classroom Teacher provides instruction through: • Minimum of three hours synchronous daily instruction for all students via Zoom, inclusive of dELD/iELD instruction for English Learners, and MELD instruction for Standard English Learners • Assignments on Schoology or other digital platforms • Access to digital learning tools and curriculum with monitoring and feedback on progress • Asynchronous work • A minimum of 2 hours of office hours per week, to be scheduled at the discretion of the teacher • Approval of all requests from affected students for short-term independent study • Students to be given the opportunity to receive full credit for any make-up work resulting from these absences
2. TEACHER IS PRESENT BUT ONE OR MORE STUDENTS ARE QUARANTINED	Classroom Teacher provides instruction through: • In-person instruction for in-person students • Access to live classroom through use of Zoom for no less than 50% of instructional minutes of each school day, to be scheduled at the teacher's discretion to maximize learning opportunities. • The determination of whether to utilize a polycam or laptop computer for Zoom livestreaming shall be

	determined by the classroom teacher. The District shall provide the teacher with additional technology as reasonably needed. • Assignments on Schoology or other digital platforms • Access to digital learning tools and curriculum with monitoring and feedback on progress • Approval of all requests from affected students for short-term independent study • Students to be given the opportunity to receive full credit for any make-up work resulting from these absences
3. TEACHER AND POSSIBLY ONE OR MORE STUDENTS ARE QUARANTINED, BUT OTHER STUDENTS ARE PRESENT IN SCHOOL WITH A SUBSTITUTE	Classroom Teacher provides instruction through: • Live classroom instruction through use of video and audio via Zoom for both in-person and quarantined students • Zoom breakout rooms can be used for synchronous small group instruction for quarantined students. • Assignments on Schoology or other digital platforms • Access to digital learning tools and curriculum with monitoring and feedback on progress • Availability on Zoom for students and substitute for entirety of regularly scheduled instructional time • Approval of all requests from affected students for short-term independent study • Students to be given the opportunity to receive full credit for any make-up work resulting from these absences Substitute provides in-person support for in-person students.

SECONDARY CLASSROOMS (MIXED COHORTS)	
1. WHOLE CLASS, INCLUDING TEACHER, IS QUARANTINED	Classroom Teacher provides instruction through: • Minimum of 30 minutes of synchronous daily instruction in each class period for all students via Zoom • Assignments on Schoology or other digital platforms • Access to digital learning tools and curriculum with monitoring and feedback on progress • Asynchronous work • A minimum of 2 hours of office hours per week, to be scheduled at the discretion of the teacher • Approval of all requests from affected students for short-term independent study • Students to be given the opportunity to receive full

	credit for any make-up work resulting from these absences
2. TEACHER IS PRESENT BUT ONE OR MORE STUDENTS ARE QUARANTINED	Classroom Teacher provides instruction through: • In-person instruction for in-person students • Access to live classroom through use of Zoom for no less than 50% of instructional minutes of each class period, to be scheduled at the teacher's discretion to maximize learning opportunities. • The determination of whether to utilize a polycam or laptop computer for Zoom livestreaming shall be determined by the classroom teacher. The District shall provide the teacher with additional technology as reasonably needed. • Assignments on Schoology or other digital platforms • Access to digital learning tools and curriculum with monitoring and feedback on progress • Approval of all requests from affected students for short-term independent study • Students to be given the opportunity to receive full credit for any make-up work resulting from these absences
3. TEACHER AND POSSIBLY ONE OR MORE STUDENTS ARE QUARANTINED, BUT OTHER STUDENTS ARE PRESENT IN SCHOOL WITH A SUBSTITUTE	Classroom Teacher provides instruction through: • Live classroom instruction through use of video and audio via Zoom for both in-person and quarantined students • Zoom breakout rooms can be used for synchronous small group instruction for quarantined students. • Assignments on Schoology or other digital platforms • Access to digital learning tools and curriculum with monitoring and feedback on progress • Availability on Zoom for students and substitute during entirety of each class period • Approval of all requests from affected students for short-term independent study • Students to be given the opportunity to receive full credit for any make-up work resulting from these absences Substitute provides in-person support for in-person students.

EARLY EDUCATION
For Early Education programs with instructional days of less than six (6) hours, including Special Education and State Preschool, the minimum shall be no less than 50% of class length.

ADULT EDUCATION

All Adult Education courses, which are conducted in-person and as hybrid classes, shall follow the protocols outlined above for Secondary Classrooms. With synchronous instructional time adjusted for class length. (No less than 50% of class length). Class sessions currently conducted online are not included as part of this provision.

ATTACHMENT B

SITE PROCEDURES FOR CONFIRMED POSITIVE COVID-19 CASE*

If the Administrator or designee becomes aware of a case who has been on campus during their infectious period, the Administrator or designee shall:

If case is a student:

- Escort the student to the dedicated isolation area immediately.
- Provide the student with a medical-grade mask
- Contact parent for pick-up
- Print and provide LA County Department of Public Health isolation instructions to the parent when a student is picked up.

If the case is an employee:

- Direct the employee to go home immediately
- Provide via print out or email, the LA County Department of Public Health isolation to the employee

For all cases:

- Identify and confirm close contacts and provide information to the CE Team. If the positive case is a student, this process shall include interviewing the classroom teacher(s) and/or designated service provider(s) of the student.
- Immediately identify areas on site that need to be closed off and disinfected and provide information to the Plant Manager and Complex Project Manager
- If the positive case rode a school bus during their infectious period, notify the Transportation Division
- If the positive case is a student, make every effort to notify the classroom teacher(s) and/or designated service provider(s) of the student in writing within 24 hours that a student in their class or caseload has tested positive.
- If the close contacts are students on campus, send students to the quarantine area and contact parents for pick-up. Provide LA Unified Quarantine Instructions to parents via print out or email.
- For the purposes of continuity of learning, make every effort to notify the classroom teacher(s) and/or designated service provider(s) in writing within 24 hours when a student(s) in their classroom or a student(s) on their caseload is required to quarantine.
- If the close contacts are staff members on campus, provide LA Unified Quarantine Instructions via print out or email, instruct the staff members to notify their supervisor(s), and send them home to quarantine immediately

Administrators will be notified by the CE Team via email when the case is cleared to return

Quarantine:

Vaccinated students and employees who are close contacts do not need to quarantine as long as they remain asymptomatic. They must monitor for symptoms for 14 days. They will continue to be tested regularly for COVID-19.

Unvaccinated students and employees who are close contacts will quarantine as follows:

- Unvaccinated students should test for COVID-19 after day 5 and if that is negative and they remain asymptomatic, they can return on day 8. They should continue to monitor for symptoms through day 14.
- Unvaccinated students who do not test for COVID-19 must complete a 10-day quarantine.

- Unvaccinated staff should test for COVID-19, but are required to complete a full 10-day quarantine. They should continue to monitor for symptoms through day 14.
- All quarantined or isolated individuals may return after 10 days (on day 11) if they are asymptomatic. They will receive an automated email from CE on day 10.
- Employees and students who quarantine or isolate must be cleared by CE before returning to school/work location if the return is to be prior to 10 days from date of exposure.

Required Notifications:

- Employees who use the Daily Pass and are scanned in at the school or office will receive an email communication when there is a positive case on the site. Required notification to employees and bargaining units of a positive case has been automated and will be generated by the Community Engagement office.
- Make every effort to notify the classroom teacher(s) and/or designated service provider(s) in writing within 24 hours when a student in their class or caseload has tested positive.
- For the purposes of continuity of learning, make every effort to notify the classroom teacher(s) and/or designated service provider(s) in writing within 24 hours when a student(s) in their classroom or a student(s) on their caseload is required to quarantine.

* Site procedures are subject to modification based on current health conditions and Public Health guidance.

SIDELETTER BETWEEN LAUSD & UTLA FOR A RETENTION STIPEND FOR SCHOOL NURSES AND NURSE PRACTITIONERS

This sideletter is to memorialize an agreement between the Los Angeles Unified School District (District) and United Teachers Los Angeles (UTLA) for a retention stipend for school nurses and nurse practitioners for the 2021-2022, 2022-2023, and 2023-2024 school years.

The District and UTLA agree to the following:

1) For the next three years (2021-2024), the District shall provide a $5,000 retention stipend for nurses working for a minimum of three (3) years. The $5,000 stipend would be split into three (3) payments as follows:
   A. $2,000 upon completion of the 2021-2022 School Year
   B. $2,000 upon completion of the 2022-2023 School Year
   C. $1,000 upon completion of the 2023-2024 School Year
2) Active nurses hired by the signing date of this agreement who work through June 30th of that school year would be eligible for the stipend.
3) This sideletter shall be in effect July 1, 2021 through June 30, 2024, after which time it will sunset.

UTLA

September 21, 2021
Date

LAUSD

September 21, 2021
Date

SIDELETTER BETWEEN LAUSD & UTLA FOR VIRTUAL INSTRUCTION DURING WILDFIRES

September 21, 2021

This sideletter is to memorialize an agreement between the Los Angeles Unified School District (District) and United Teachers Los Angeles (UTLA) to provide students virtual instruction when schools are closed to due to wildfires and wildfire related issues.

The District and UTLA agree to the following:

A. In cases where an entire class or school is physically closed due to wildfires and wildfire related issues, the classroom teacher, or a substitute if the classroom teacher is directly affected, shall provide live virtual instruction for all students, beginning on the second instructional day of closure, as follows:

SELF-CONTAINED CLASSROOMS (EEC, EARLY EDUCATION, PRE-K, ELEMENTARY, & SPECIAL EDUCATION)

- Minimum of three hours synchronous daily instruction for all students via Zoom, inclusive of dELD/iELD instruction for English Learners, and MELD instruction for Standard English Learners
- Assignments on Schoology or other digital platforms
- Access to digital learning tools and curriculum with monitoring and feedback on progress
- Asynchronous work
- A minimum of 2 hours of office hours per week, to be scheduled at the discretion of the teacher
- Approval of all requests from affected students for short-term independent study
- Students to be given the opportunity to receive full credit for any make-up work resulting from these absences

SECONDARY AND ADULT EDUCATION CLASSROOMS (MIXED COHORTS)

- Minimum of 30 minutes of synchronous daily instruction in each class period for all students via Zoom. For Adult Education, synchronous instructional time will be adjusted for class length. (No less than 50% of class length).
- Assignments on Schoology or other digital platforms
- Access to digital learning tools and curriculum with monitoring and feedback on progress
- Asynchronous work
- A minimum of 2 hours of office hours per week, to be scheduled at the discretion of the teacher
- Approval of all requests from affected students for short-term independent study
- Students to be given the opportunity to receive full credit for any make-up work resulting from these absences

B. Classroom teachers have the option to provide live virtual instruction on the first instructional day of closure at their discretion.

C. Remote learning shall continue until the school(s) and all classrooms are cleaned and ready for instruction.

D. This non precedent setting sideletter shall be in effect upon the date of signing through June 30, 2022, after which time it will sunset.

UTLA

September 21, 2021
Date

LAUSD

September 21, 2021
Date

EXHIBIT F

Health Services
LOS ANGELES COUNTY

Monday July 18, 2022
Media Contact: media@dhs.lacounty.gov

STATEMENT ON BEHALF OF LA COUNTY'S LAC+USC MEDICAL CENTER ON STATE OF CURRENT COVID-19 HOSPITALIZATIONS

LAC+USC Underscores Importance of COVID-19 Safety Precautions; Current Low Rates of ICU Admission Attributed to High Rates of Vaccination Across Los Angeles County

Los Angeles, CA - On behalf of LAC+USC Medical Center, we would like to be very clear: the COVID-19 pandemic remains a very serious public health threat that we must continue to fight with every tool available, including vaccines, masking, social distancing, and treatment. While we are not currently experiencing an increase in ICU admissions at LAC+USC, we are seeing a significant increase in the number of infections among our patients, staff and the communities we serve. Rising rates of infection are extremely concerning, as the more people who become infected, the greater the probability that ICU admissions for COVID-19 will rise in the future.

Importantly, one of the reasons we are seeing low rates of ICU admission currently is due to high rates of vaccination across Los Angeles County. We would like to underscore the importance of remaining current on vaccinations and using common sense measures to protect against COVID-19 transmission and infection, such as masking and social distancing.

The video that is being circulated online was taken from an internal weekly virtual town hall meant to provide our staff at LAC+USC an update on COVID-19 hospital admissions. As was stated during the town hall, many patients are presenting every day to our Urgent Care Clinic and Emergency Department with COVID-19, reflecting extensive community transmission in Los Angeles County. Fortunately, most of these patients have mild disease - at this time - and do not require admission. The widespread vaccination coverage in Los Angeles County is critical to protecting against severe disease, hospitalization, and death.

Additionally, as a safety precaution for our staff and our other patients, all admissions to the hospital are tested for COVID, irrespective of the reason for admission. In the course of this testing, we are seeing a steady number of patients return a positive result. This is due to both high community transmission rates in Los Angeles County, as well as the fact that a person who has recovered from COVID-19 can continue to test positive on a PCR test for months, even when they are no longer actively infected.

At the current time, approximately 10 percent of patients admitted to LAC+USC Medical Center with a positive COVID test are admitted due to illness caused by COVID. Furthermore, few of the admissions due to symptomatic COVID are admitted to the ICU, and we have not had a patient intubated due to COVID pneumonia for several months. In contrast to our peak during the winter of 2020, when we had 285 COVID+ patients in the hospital, 120 of whom were in the ICU, we currently have approximately 30 COVID+ patients in the hospital, of whom 3 were admitted for COVID, none of whom are in the ICU.

These facts should not negate the importance of vaccination and other COVID-19 safety measures, nor should they be used to promote baseless political arguments against such measures. Our doctors and nurses have been on the frontlines of this pandemic, many of them making personal sacrifices to ensure we continue to care for all patients even as the numbers rise. The pandemic is still ongoing and unpredictable. As we have repeatedly stated over the past two and half years of our weekly town halls, we strongly support public health policies that encourage vigilance and common-sense precautions, like remaining current with vaccinations, social distancing, and wearing a mask in public settings. To use our weekly internal town hall to suggest such measures are unnecessary is fundamentally contrary to our position as a medical center.

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EXHIBIT G

Open Forum Infectious Diseases
CORRESPONDENCE

A More Accurate Measurement of the Burden of Coronavirus Disease 2019 Hospitalizations

To the Editor—While preventing infection was the initial focus of the coronavirus disease 2019 (COVID-19) pandemic response, with increasing population immunity and variant transmissibility, the current focus has shifted to reducing hospitalization and deaths, particularly in vulnerable communities [1]. During the recent surge in disease activity driven by the Omicron variant, an increased proportion of "COVID-19 hospitalizations" were incidentally discovered infections in patients newly hospitalized for other reasons [2–6], resulting in decreased measurements of in-hospital disease severity and mortality compared to prior disease surges [6–9]. However, estimates of the proportion of total COVID-19 hospitalizations accounted for by these incidental infections range widely from 15% to 68% [2–6], due to heterogeneity in case definitions for these incidental infections and variability across populations with respect to vaccination status and other risk factors for severe COVID-19.

We propose utilizing the Centers for Disease Control and Prevention (CDC) criteria for severe COVID-19, based on need for supplemental oxygen or oxygen saturation <92%, to define COVID-19 hospitalization [10]. To study the impact of this case definition, we reviewed medical records of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) polymerase chain reaction (PCR)–positive patients admitted to LAC + USC Medical Center, a safety net hospital serving predominantly Latino and low-income patients in Los Angeles, California, during the local Omicron variant surge between 10 December 2021 and 19 January 2022. We abstracted data on age, vaccination and prior infection history, disease severity assessed by oxygen requirement, hospital length of stay, and mortality via retrospective medical record review.

Using this case definition based on the CDC criteria for severe disease, 67.5% of SARS-CoV-2 PCR-positive hospitalized patients would not have met criteria for a COVID-19 hospitalization. These patients had significantly lower median age (44 years vs 57 years), median hospital length of stay (2 days vs 3 days), and in-hospital mortality (3.5% vs 14%) (Table 1). While unadjusted analysis did not show significant association between exposure to vaccine or prior infection and non-severe disease (odds ratio [OR], 0.79 [95% confidence interval {CI}, .53–1.17]; $P = .24$), exposure to vaccine or prior infection was associated with non-severe disese upon adjustment for age using logistic regression (OR, 0.58 [95% CI, .38–.89]; $P = .01$).

The high frequency of incidental COVID-19 infection among hospitalized patients detected using the case definition based on lack of oxygen requirement exceeds the rates reported in previous studies that used more stringent case definition based on complete absence of COVID-19 symptoms [2] or were performed during periods of the pandemic prior to the Omicron variant surge [3]. However, the high frequency of incidental COVID-19 is very similar to measurements based on the case definition of severe COVID-19 [6] or correlates, such as administration of steroid treatment [5] during the Omicron surge. Given that nonsevere COVID-19 infections not requiring supplemental oxygen can generally be treated on an outpatient basis, we propose that the number of hospitalized COVID-19 patients requiring supplemental oxygen be reported alongside the total number of hospitalized COVID-19 patients in public health statistics used to inform the public or make policy decisions. One caveat is that patients with nonsevere COVID-19 are hospitalized at a higher rate than patients without COVID-19 [4], which may reflect nonrespiratory complications of COVID-19 including thrombosis or multisystem inflammation or exacerbation of underlying chronic diseases, although these complications are often difficult to attribute directly to

Table 1. Characteristics of Hospitalized Patients With Nonsevere Versus Severe Coronavirus Disease 2019 Infection During the Omicron Variant Surge

Characteristic	All COVID-19 Patients	Nonsevere COVID-19	Severe COVID-19	*P* Value[a]
No.	462	312	150	
Age, y, median (IQR)	50 (32–62)	44 (30–59)	57 (44–72)	<.001
Immunized[b], No. (%)	268 (58.5)	186 (60.4)	82 (54.7)	.24
LOS[c], d, median (IQR)	2 (1–4)	2 (1–4)	3 (1–5)	<.005
Death, No. (%)	32 (6.9)	11 (3.5)	21 (14.0)	<.001

Abbreviations: COVID-19, coronavirus disease 2019; IQR, interquartile range; LOS, length of stay.

[a] *P* value for Wilcoxon rank-sum test (for age and LOS) or Pearson χ^2 test (for immunized and death) comparing nonsevere vs severe COVID-19 groups.

[b] "Immunized" is defined as having any exposure to severe acute respiratory syndrome coronavirus 2 vaccination or prior infection confirmed by polymerase chain reaction or antigen testing; 6 patients were missing data for either vaccination or prior infection.

[c] Hospital LOS among patients who survived to discharge.

COVID-19 in individual patients. An updated case definition resulting in more accurate measurement of COVID-19 hospitalizations will facilitate more effective health policy and trust with the public.

Notes

Patient consent. Patient consent is not applicable to this work, as patient data were collected via retrospective review of electronic medical records with the approval of the Institutional Review Board of the University of Southern California under protocol HS-20-00880.

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Potential conflicts of interest. The authors: No reported conflicts of interest.

All authors have submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

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EXHIBIT H

TITLE:

Unravelling the role of the mandatory use of face covering masks for the control of SARS-CoV-2 in schools: A quasi-experimental study nested in a population-based cohort in Catalonia (Spain)

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Abstract

Background:

Mandatory use of face covering masks (FCM) had been established for children aged six and above in Catalonia (Spain), as one of the non-pharmaceutical interventions aimed at mitigating SARS-CoV-2 transmission within schools. To date, the effectiveness of this mandate has not been well established. The quasi-experimental comparison between 5 year-old children, as a control group, and 6 year-old children, as an interventional group, provides us with the appropriate research conditions for addressing this issue.

Methods:

We performed a retrospective population-based study among 599,314 children aged 3 to 11 years attending preschool (3-5 years, without FCM mandate) and primary education (6-11 years, with FCM mandate) with the aim of calculating the incidence of SARS-CoV-2, secondary attack rates (SAR) and the effective reproductive number (R*) for each grade during the first trimester of the 2021-2022 academic year, and analysing the differences between 5-year-old, without FCM, and 6 year-old children, with FCM.

Findings:

SARS-CoV-2 incidence was significantly lower in preschool than in primary education, and an age-dependent trend was observed. Children aged 3 and 4 showed lower outcomes for all the analysed epidemiological variables, while children aged 11 had the higher values. Six-year-old children showed higher incidence than 5 year-olds (3·54% vs 3·1%; OR: 1·15 [95%CI: 1·08-1·22]) and slightly lower but not statistically significant SAR and R*: SAR were 4·36% in 6 year-old children, and 4·59% in 5 year-old (IRR: 0·96 [95%CI: 0·82-1·11]); and R* was 0·9 and 0·93 (OR: 0·96 [95%CI: 0·87-1·09]), respectively.

Interpretation:

FCM mandates in schools were not associated with lower SARS-CoV-2 incidence or transmission, suggesting that this intervention was not effective. Instead, age-dependency was the most important factor in explaining the transmission risk for children attending school.

Funding: CP and SA received funding from Ministerio de Ciencia, Innovación y Universidades and FEDER, with the project PGC2018-095456-B-I00.

Research in context:

Evidence prior to this study

-Only laboratory or observational studies have been performed to explore the effectiveness of the FCM mandate in the general population.

-To date, there have been no randomised controlled trials on the FCM mandate in schools.

-There is a lack of strong scientific evidence supporting the decision to make FCM mandatory for children over 5 years of age.

-Age-dependency of SARS-CoV-2 transmission in schools has been demonstrated with previous SARS-CoV-2 variants.

Added value of this study

-We used a quasi-experimental design to study the effectiveness of the FCM mandate, comparing the outcome between children with mandatory use of FCM and children without.

-The differences in terms of incidence, SAR or R* between children in the final year of preschool and children in the 1st year of Primary education were not statistically significant, therefore making FCM mandatory is not effective.

-Age-dependency is key for understanding SARS-CoV-2 transmission with the Delta variant, reinforcing the same outcome that was observed with previous SARS-CoV-2 variants.

Implications of all available evidence

-The effectiveness of the FCM mandate for children attending school is based on insufficient scientific evidence.

-The immunological innate host response in younger children that wanes as they get older, alongside classroom dynamics, could explain the age-dependency gradient in the incidence, SAR and R* results of the study.

Background

Experimental studies have clearly established the efficacy of masks in preventing the release and inhalation of different particles, showing large reductions in emissions which range from 50% to 90% depending on the type of mask.[1–6] Furthermore, some observational studies have shown that the use of masks can be effective in reducing the transmission of respiratory viruses in certain conditions or settings, although the real-life reductions have often been lower than those shown in the laboratory studies.[7–10]

In this context, the mandatory use of face covering masks (FCM) has been a part of public health policy in many countries, as one of the non-pharmaceutical interventions (NPI) aimed at preventing the transmission of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) during the 2019 coronavirus disease (COVID-19) pandemic. In addition, some countries implemented FCM mandates in schools despite the fact that the European Centre for Disease Prevention and Control and also the World Health Organisation only recommended their use for children over 12, or in situations where community transmission is high.[11,12] Several factors can affect the ability of masks to reduce transmission, for example the percentage of susceptible population, the type of setting and the level of compliance. Specifically, in schools, the effectiveness of the mandatory use of FCM is a matter for debate. In general, COVID-19 is less severe in children, who typically present milder symptoms than adults, or no symptoms at all. There is evidence that age-related factors in innate and adaptive immune response, off-target effects of vaccines, cross-reactive immune responses to seasonal coronaviruses, and clotting and endothelial function can contribute to differences in the severity of COVID-19 observed between children and adults.[13–19] Up-to-date studies in educational settings point in both directions when it comes to the effectiveness of FCM mandates: a compulsory FCM policy in schools may have had either no effect, a minor effect or a more pronounced effect.[20,21] Some of these studies have used an ecological design, and their findings may have been affected by various limitations and confounders. It is thus clear that randomised controlled trials (RCT)

would be ideal to elucidate the effectiveness of such policies, although they are difficult to perform in schools.

In Catalonia, an autonomous region in north-eastern Spain with a population of 7·6 million, schools reopened in September 2020 for face-to-face tuition with some NPI in place. This included bubble groups, groups comprising a fixed and stable number of students and teachers that behave in a homogeneous way, a measure used to facilitate traceability, identify the need for self-isolation, and reduce transmission. Hygiene measures were also introduced, as well as daily screening for symptoms, a 10-day quarantine period, and testing for all the students within a bubble group in the case of a confirmed infection within that group, together with the mandatory wearing of FCM for children over five.[22] A study performed during the first term of the 2020-2021 academic year showed an age-dependency on SARS-CoV-2 transmission in schools with no significant differences between children under six (where there was no mandatory use of masks) and older children.[23] At the beginning of the first trimester of 2021-2022, Delta was the most prevalent variant, vaccination coverage was 92% for teachers, 80·4% for students over 12, and the vaccination programme for children under 12 had not yet begun,[24] while FCM mandates and other NPI remained. In the absence of RCT on the topic, this situation allowed us to perform a quasi-experimental study for analysing the effectiveness of FCM mandates.

We analysed routinely collected health data to compare the incidence of SARS-CoV-2 secondary attack rates (SAR) and the effective reproductive number (R*) among school children aged between three and eleven, comparing those without mandatory FCM in preschool stage (3 -5 year olds) and primary school children where the use of masks is indeed mandatory (6-11 year olds) during the first trimester of the school year 2021-2022 (13 September 2021-22 December 2021).

Methods

Study design and data sources

A retrospective population-based cohort study was designed. Data were obtained from the official census of school age children in Catalonia linked to the regional central database of reverse transcriptase polymerase chain reaction (RT-PCR) and lateral flow tests (LFT) for SARS-CoV-2. During the study period, each time a positive case was detected by the health system, the whole bubble group was immediately quarantined for a 10-day period, and all children in the group were tested with an RT-PCR four to six days after their last contact with the person infected, with a recommendation that a second test should be performed if symptoms should appear despite a negative test result.

Participants, cohorts, and follow-up

The study population was a cohort of children aged between three and eleven assigned to a stable bubble group according to the 2021-2022 academic census from the Catalan Department of Education. As the school census allows the declaration of bubble groups of any size, we excluded those with either more than 30 or less than 5 members, to ensure better intra-group stability. We also excluded schools that did not have bubble groups for all 9 academic years.

We used data from the first trimester of the 2021-2022 academic year, from 13 September 2021 to 22 December 2021 for the purposes of recruiting, and allowed for 10 more days (until January 1, 2022) for the occurrence of possible secondary cases for SAR and R* calculations with the same follow-up period for all index cases.

We defined an index case as the first case in a bubble group in a 10-day window, and secondary cases were defined, according to Catalan SARS-CoV-2 management guidelines, as any case where there was a positive test within the 10 days following an index case in their

bubble group. A student testing positive after this 10-day period was considered as a new index case.

Analyses were performed at bubble group and academic year levels. Groups were analysed by school year, three in preschool stage (P3, P4 and P5 according to the age of the students in each year group) and six in primary education stage (years 1 to 6, ages six to eleven years).

We performed a subgroup analysis between children at P5 year and children at 1st year of primary education. The only difference between them, regarding NPI, is the FCM mandate: children aged five years without the mandatory use of FCM (P5 year) and children aged six years with mandatory use of FCM (Primary education 1st year).

Study outcomes and epidemiological measures

The primary outcome was SARS-CoV-2 infection, defined by the date of the first positive RT-PCR or LFT, regardless of the presence of any symptom or clinical diagnosis.

For each school year, we calculated three epidemiological variables:

- Incidence of SARS-CoV-2 infection: as the number of children with a positive test divided by the population.
- SAR: the number of new cases in a bubble group divided by the total number of at-risk group members after subtracting the index case. SAR was calculated for each bubble group, and then summarised for each school year as the mean and the median.
- R*: the average number of secondary cases for each index case as described elsewhere.[23] The average R* was calculated for all bubble groups within each school year.

Statistical analysis

For descriptive analysis, we expressed continuous variables as mean (standard deviation) or median (interquartile range, IQR) and summarised categorical variables as number (percentage). We calculated a 95% confidence interval (95%CI) for incidence of SARS-CoV-2 infection and SAR. We used a logistic regression model to estimate the odds ratio (OR) and 95%CI of SARS-CoV-2 incidences and a negative binomial model to estimate the incidence risk ratio (IRR) and 95%CI of SAR between the P5 school year, and the first year of primary education stage. From the distribution of cases, we fitted a negative binomial distribution to obtain the mean (R*) and the 95%CI from the standard deviation. We used R version 4.0.0 and MATLAB 2021b for the analyses.

Results

A total of 1,907 schools, 28,575 bubble groups and 599,314 (94·7%) of pupils were included in the analysis after the exclusions. **Figure 1** shows the flow-chart for the population that is the subject of the study.

The number of SARS-CoV-2 infections during the study period was 24,762 (4·13%). **Table 1** summarises the number of students, bubble groups and SARS-CoV-2 infections for each school year. **Figure 2** shows the 7-day moving average of SARS-CoV-2 infections during the school trimester by school year. We observe that all school years follow a similar pattern, and preschool years were consistently less infected than older children. Incidence was lower in preschool stage than in primary education, ranging between 1·74% in P3 and 5·91% in year 6 of primary education, showing an age-dependency trend (**Table 2**).

We analysed 13,404 outbreaks during the study period. On average, 57% of outbreaks had no secondary cases, but there were more outbreaks without secondary cases in preschool (70%) than in primary education (53%) (**Table 1**). Median SAR was 0 in all years except for year 6 of primary education (**Table 2**). **Figure 3** shows the mean SAR by school year. While lower values

were observed in preschool (2·34%, 2·77% and 4·59% in P3, P4 and P5, respectively) the highest values were in year 6 of primary education, with a mean SAR of 7·17%. The same pattern was observed for R*, highlighting the low values in preschool P3 and P4 and the R*>1 for years 3, 4, 5 and 6 of primary education (**Figure 3**).

P5 versus year 1 of primary education subgroup analysis

The incidence of SARS-CoV-2 and the percentage of positive tests were significantly higher for year 1 of primary education than in P5: incidence was 3·54% vs 3·1%, with an OR of 1·15 (95%CI: 1·08-1·22); and test positivity was 7·98% (95%CI: 7·69%– 8·27%) and 6·82% (95%CI: 6·55%–7·10%), respectively. Conversely, SAR and R* were similar for both years. Median SAR was 0, and mean SAR was slightly lower - but not statistically significant - in year 1 of primary education than in P5, 4·36% vs 4·59% respectively (IRR: 0·96 [95%CI: 0·82–1·11]). Furthermore, R* was not significantly lower for year 1 of primary education either: 0·90 vs 0·93 (OR: 0·96 [95%CI: 0·87–1·09]) (see **Table 2** and **Figure 3**). Finally, the percentage of outbreaks without secondary cases was higher in P5 (64·2%) than in year 1 of primary education (61·3%).

Discussion

The main findings of the study show no significant differences between P5 and year 1 of primary education in terms of transmission indicators during the first trimester of the current academic year, despite the difference in the FCM mandate, and a strong age-dependency in the transmission of SARS-CoV-2 in the schools, reinforcing the results published for the year 2020-2021, but with a different and more transmissible SARS-CoV-2 Delta variant.[23]

The age-dependency trend observed for P5 (preschool) and older children follows a different pattern when P3 and P4 are included in the analysis. With no mandatory use of FCM, the youngest children have significantly lower transmission indicators when compared with any other year group. These findings may be related to the age decrease trend of the innate immunological response, and a shift towards an adult-like immunological response pattern as

the child enters primary school as had already been observed in a study of immune response following a SARS-CoV-2 infection. The changes in the innate immune cell populations for children under five showed significantly lower proportions of circulating monocytes and dendritic cells compared to SARS-CoV-2 positive children over the age of five.[13] The authors concluded that innate immune differences between infected children and infected adults were most evident in infants and preschool age children.[13] Moreover, another study on the role of the neutralising antibodies in the adaptive immune response against SARS-CoV-2 mild infections showed that their titers were inversely correlated with age and children under six, and in particular toddlers under three years of age had the highest values throughout early, intermediate and late follow-up endpoints since infection onset.[17] Finally, as primary infection with several human coronaviruses typically occurs early in childhood, and children are frequently reinfected with common cold coronaviruses, finding more cross-reactive T cells in younger children than in adults or those at advanced stages of childhood is to be expected.[18,25]

Despite no significant differences between P5 and the first year of primary education being found in transmission indicators, the observed SAR and the R* values suggest that P5 could have transmission values slightly higher than those expected when extrapolating the age-dependency of older children down to those of preschool age. On the contrary, P3 and P4 data suggest lower values than expected. Looking at years 1 to 6 of primary education, (i.e. six to eleven year olds), the variation of incidence, SAR and R* with age suggests a linear relationship. A linear regression to these data provides an r^2 of 0·99 (incidence-age), 0·95 (SAR-age) and 0·96 (R*-age). If we extrapolate a backward regression to P5, we notice that the observed values of both SAR and R* are 18% higher than those expected from the regression model for children in primary education, while the incidence remains 2% below the expected value. On the other hand, P3 and P4 show mean SAR values that are 19% (P3) and 18% (P4) lower than those expected from this extrapolation of the primary education regression model. The observed R* values would be 24% (P3) and 20% (P4) lower than those expected, and the

incidences would be 21% (P3) and 14% (P4) below the expected values (see supplementary figures S1, S2 and S3).

The difference in P5 between observed and expected SAR an R* could be explained by different FCM mandates in preschool and primary education, but other reasons may also come into play. For instance, it can be influenced by the differing classroom dynamics in preschool and primary education, which involve closer contact between children at younger ages. Furthermore, test positivity was statistically lower in P5, suggesting greater efforts being made in testing in the case of younger children. Even in the best case scenario for FCM mandates, and assuming that all the differences between observed and expected R* and SAR were related to FCM use (a highly implausible assumption), the implementation of this measure could have avoided a statistically non-significant number of secondary cases of 162 (95% CI: -28–352) in a population of 63,344 students during the whole of the period covered by the study (0·3%, i.e., the cumulative incidence could have been 2·8% rather than 3·1%), pointing to a limited or marginal effect of the FCM mandates in schools.

These values are much lower than those found in some studies. The odds of an outbreak occurring were 3·5 higher in those primary and secondary schools (K-12) without an early mask mandate in two Arizona counties during 15 July – 31 August 2021.[26] By analysing 520 counties during the first two months of the 2021-2022 academic year in the USA, it was found that those counties without an FCM mandate presented greater increases in paediatric SARS-CoV-2 cases.[20] However, these studies have certain limitations: they are ecological studies which do not make a distinction between children and adolescents in their analyses, or take differences in staff vaccination status or testing rate into account. It should be noted that substantial reductions in transmission have only consistently been detected in laboratory settings and in tightly controlled environments,[4,9,10] and would imply extremely high compliance in terms of the wearing of properly fittings masks, and of use of masks that offer the highest level of protection (FFP2) which, at least in Spain, are not in frequent use in any educational setting.

However, the results obtained from our work show results similar to those obtained in other studies that analyse the impact of mask-wearing policies for students in educational settings. No correlation between mask mandates at district level and SARS-CoV-2 rates were found in Florida (USA) schools during the 2020-2021 academic year.[27] Similarly, by comparing 123 UK secondary schools with FCM mandates with 1,192 where such mandates were not imposed over the course of three weeks during the 2021-2022 academic year, the absence rate due to COVID-19 decreased 0·6% (11% relative difference) in the former group, although this was found to be statistically non-significant using entropy balancing.[28]

Our study has certain limitations. We performed an intention-to-treat analysis. This means that there may have been children in P5 who did use FCM, and also children in year 1 of primary education who did not, or who used it incorrectly. However, the aim of our study was not to measure the individual effectiveness of the use of FCM, but to evaluate the effectiveness of mask mandates in schools, in the way that these have been implemented in the real-world. Although both cohorts were balanced at territorial and socioeconomic levels given the study design, there may be other variables that were not considered (i.e., classroom dynamics or the density of students in the classroom). Besides, we are probably overreporting the study outcomes because we were working on the assumption that all the secondary cases stemmed from infection by an index case within the bubble group, and not through concomitant cases in a 10-day window or infection through an index case in the child's household. In fact, the home has presented the greatest risk of exposure since the beginning of the pandemic, both in Spain and elsewhere. Finally, a higher percentage of asymptomatic infections in younger children might produce an infra-detection of individual asymptomatic cases, but huge diagnostic efforts to detect these infections have been in place since the previous academic year 2020-2021.[29] In fact, if a non-detected asymptomatic individual should generate an outbreak of secondary infections, the chance of the infection being detected on subsequent contact screenings

increases. This points towards global transmission indicators that could be even lower than those observed in this study.

During the study period, Delta was the most prevalent SARS-CoV-2 variant. However, at the beginning of January 2022, Omicron became the dominant variant (>95% on January 5, 2022 according to Catalan authorities). This led to the highest rates of community SARS-CoV-2 transmission of the whole pandemic. At the beginning of the second trimester (January 10, 2022), 7-day cumulative COVID-19 per 100,000 inhabitants was 2391.6 (see official Catalan website about COVID-19: https://dadescovid.cat/?lang=eng). That could affect the odds to find a secondary case that in fact is a concomitant case. In addition, school guidelines changed for the second trimester of the academic year 2021-2022. First, children in school only have to be isolated if more than 4 cases have been detected in a 7-day window. Second, quarantines of close contacts and isolation of cases have been reduced from 10 days in the first trimester to 7 days in the second. Third, school guidelines before 2022 recommended performing a PCR for screening of contacts inside a bubble group while during the second trimester the test used was a LFT. Finally, the vaccination campaign for children between 5 and 11 years was launched at the end of December. Data from the second trimester is thus not comparable to the data analysed in our article. Nevertheless, it is unlikely that the effectiveness of the mask mandate measure will increase with a more transmissible variant.

This study also has certain strengths. We analysed two homogenous cohorts (P5 and year 1 primary education), the latter with mandatory use of FCM, acting as an interventional group, and the former without, as a control group. We do not expect to find great differences in the host response due to the age or in the behaviour between both grades that could influence the results obtained, although it should be considered that classroom dynamics may be different. Given the difficulty of conducting RCT in educational settings, we believe that this quasi-experimental analysis is the best possible approach to the aim of the study. In addition, the analysis of the rest of the years of primary education clearly shows an age-dependency

increase trend for all the epidemiological measures, suggesting that the age variable is the most important component. This is consistent with the findings of a study performed with data from the first trimester of the previous academic year and different SARS-CoV-2 variant,[23] where it was observed that transmission in educational settings increased with age independently of the use of FCM.

In conclusion, FCM mandates in schools were not associated to a lower SARS-CoV-2 incidence, SAR or R*. Conversely, we found lower incidence and transmission in younger children (without FCM mandates in school), suggesting that age is the most important component to explain transmission in children.

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Ethics statement

The study was evaluated and approved by the Clinical Research Ethics Committee of the IDIAP Jordi Gol, Reference 21/018-PCV. This research was based on the agreement established in Regulation 2016/679 of the European Parliament and the Council of Europe of 27 April 2016 on Data Protection, and Organic Law 3/2018 of December 5 on the protection of personal data and the guarantee of digital rights.

Data sharing statement

All data in this study will be shared on reasonable request to the corresponding author.

Declaration of interests

The authors declare that they have no conflict of interests.

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Table 1. Number of students, bubble groups and SARS-CoV-2 infections by grade.

Year	Mean age (SD)	Students	Bubble groups	Cases from September 13 to December 22, 2021	Index Cases (outbreaks)	Secondary cases	% of outbreaks without secondary cases
P3	3·1 (0·3)	54 210	2 932	942	724	307	75·3
P4	4·0 (0·2)	60 094	2 994	1 388	976	526	72·7
P5	5·0 (0·3)	63 344	3 040	1 966	1 133	1 052	64·2
1	6·0 (0·2)	66 204	3 148	2 346	1 405	1 269	61·3
2	7·0 (0·2)	67 455	3 186	2 781	1 569	1 566	56·3
3	8·1 (0·3)	66 614	3 131	3 074	1 638	1 877	53·1
4	9·0 (0·3)	71 590	3 292	3 703	1 879	2 436	52·6
5	10·1 (0·3)	73 702	3 349	4 062	2 029	2 611	51·0
6	11·0 (0·3)	76 101	3 503	4 500	2 051	3 092	48·8
Preschool Education (P3-P5)		177 648	8 966	4 296	2 833	1 885	70·0
Primary Education (years 1-6)		421 666	19 609	20 466	10 571	12 851	53·3
Total		599 314	28 575	24 762	13 404	14 736	56·8

Table 2. SARS-CoV-2 incidence, secondary attack rate (SAR), effective reproductive number (R*) and percentage of positive tests by school year.

Year (Age)	SARS-CoV-2 incidence (95%CI)	SAR Mean (SD)	SAR Median (IQR)	R* (95%CI)	% of positive tests (95%CI)
P3 (3)	1·74% (1·63 – 1·85)	2·34% (5·53)	0·00 [0·00;0·00]	0·42 (0·35 – 0·49)	3·26 (3·06 – 3·45)
P4 (4)	2·31% (2·19 – 2·43)	2·77% (6·55)	0·00 [0·00;4·17]	0·54 (0·46 – 0·61)	4·89 (4·65 – 5·12)
P5 (5)	3·10% (2·97 – 3·23)	4·59% (9·30)	0·00 [0·00;5·00]	0·93 (0·82 – 1·04)	6·82 (6·55 – 7·10)
1 (6)	3·54% (3·40 – 3·68)	4·36% (8·38)	0·00 [0·00;5·00]	0·90 (0·81 – 0·99)	7·98 (7·69 – 8·27)
2 (7)	4·12% (3·97 – 4·27)	4·92% (8·95)	0·00 [0·00;5·88]	1·00 (0·91 – 1·08)	8·67 (8·38 – 8·96)
3 (8)	4·61% (4·45 – 4·77)	5·57% (9·52)	0·00 [0·00;7·62]	1·15 (1·05 – 1·24)	9·09 (8·80 – 9·37)
4 (9)	5·17% (5·01 – 5·33)	6·10% (9·76)	0·00 [0·00;8·33]	1·30 (1·20 – 1·39)	10·02 (9·74 – 10·31)
5 (10)	5·51% (5·35 – 5·67)	6·06% (9·86)	0·00 [0·00;8·33]	1·29 (1·20 – 1·38)	9·55 (9·29 – 9·81)
6 (11)	5·91% (5·74 – 6·08)	7·17% (11·8)	3·85 [0·00;9·09]	1·51 (1·40 – 1·61)	10·36 (10·09 – 10·63)

Figure 1. Population flow-chart

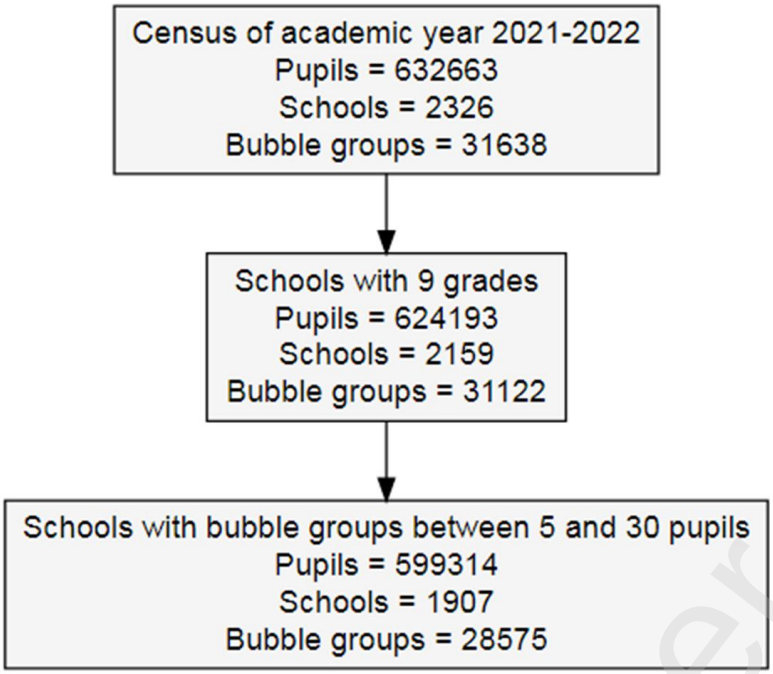


Figure 2. 7-day moving average of daily SARS-CoV-2 infection rates per 100,000 population by school year (P3-P5 for preschool, and years 1-6 for primary education)

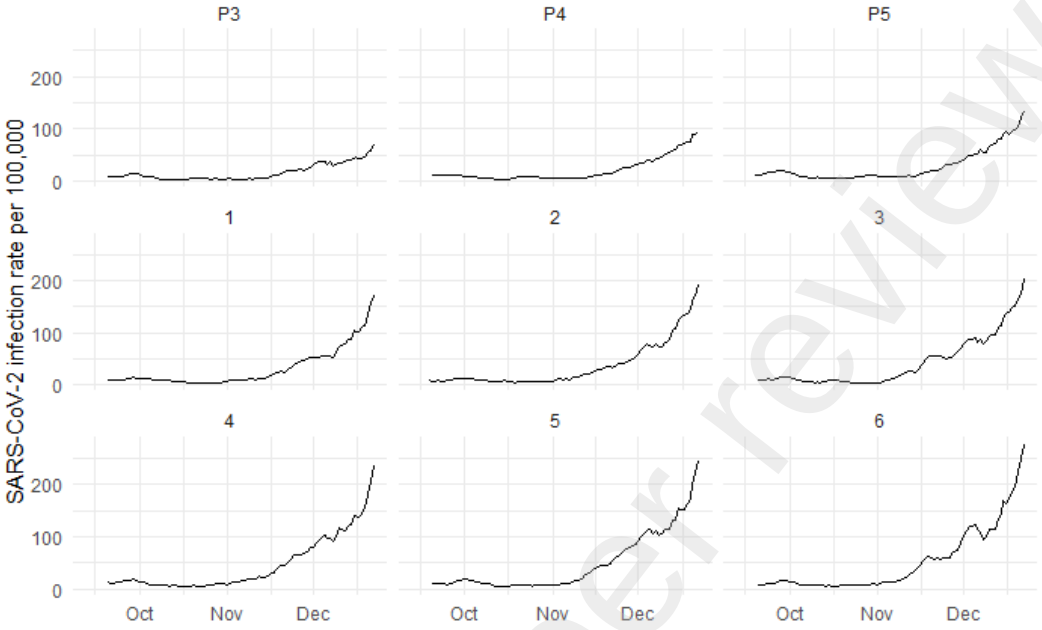
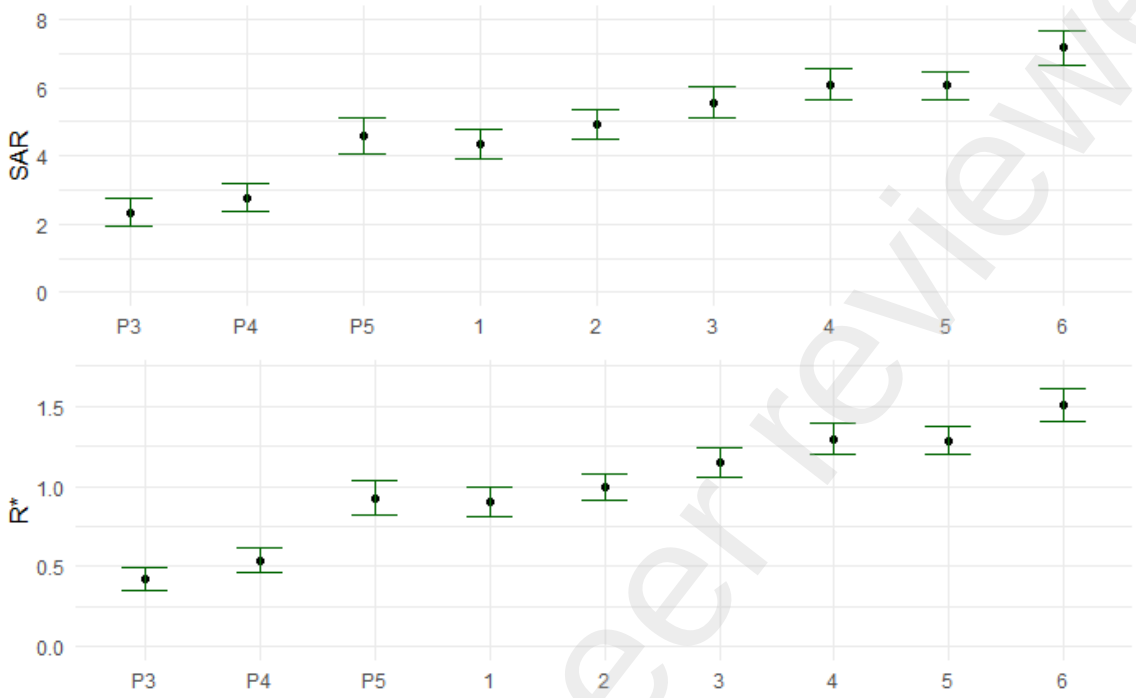


Figure 3. Median secondary attack rate (SAR) and effective reproductive number (R*) with 95%CI by school year (P3-P5 for preschool and years 1-6 for primary education).



Unravelling the role of the mandatory use of masks in the control of SARS-CoV-2 in schools: A quasi-experimental study nested in a population-based cohort in Catalonia (Spain)

Appendix

We fitted a linear regression to incidence (Figure S1, R^2 0.99), SAR (Figure S2, R^2 0.95) and R* (Figure S3, R^2 0.96) with age, using data from primary education pupils from 6 to 11 years of age. The fitting was performed using the *fitlm* function of MATLAB 2021b. The 95% CI was assessed using the *predict* function. This function was also used to extrapolate the model to preschool year groups.

Figure S1. Linear regression model of incidence with age. The regression model is fitted to data of primary school children (6 to 11 years of age). The grey area indicates the 95% CI of the fitting. Observed values are split between those that were used in the regression model (black dots, children in primary education) and those that were not (blue dots, preschool children).

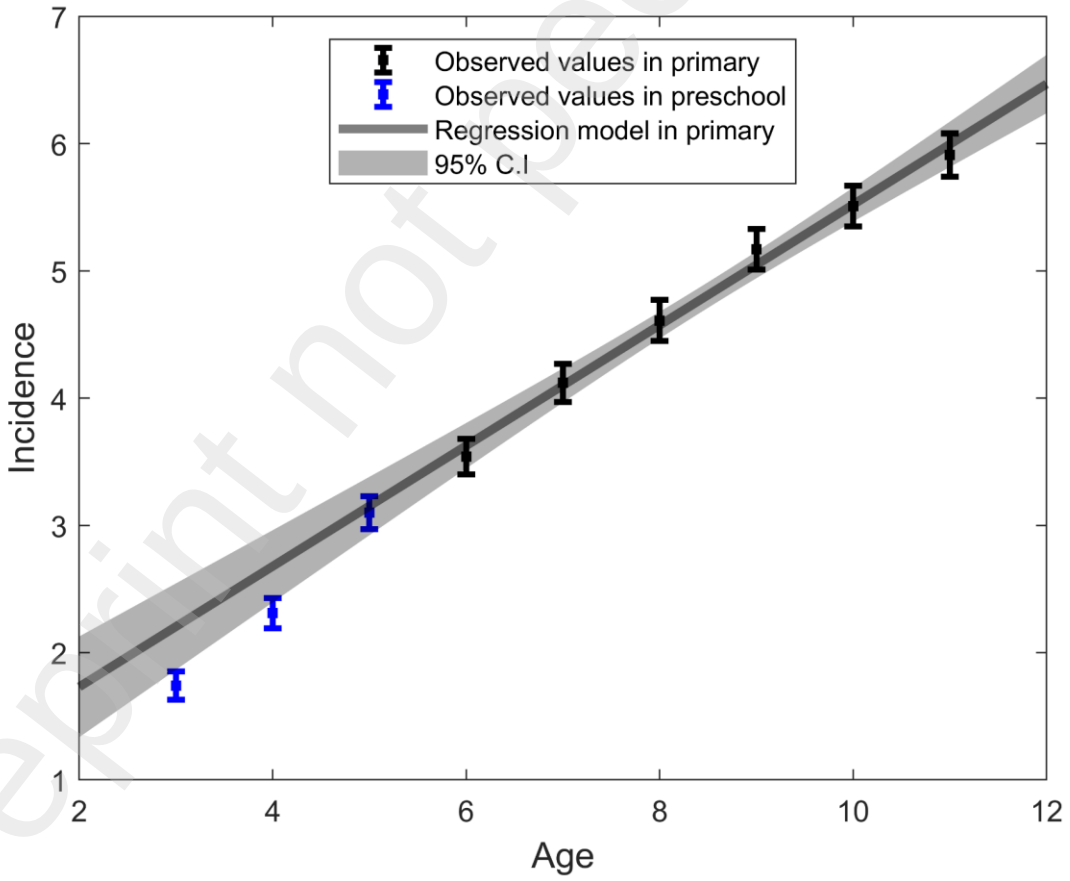


Figure S2. Linear regression model of secondary attack rate (SAR) with age. The regression model is fitted to primary education data (6 to 11 year olds). The grey area indicates the 95% CI of the fitting. Observed values are split between those that were used in the regression model (black dots, children in primary education) and those that were not (blue dots, preschool children).

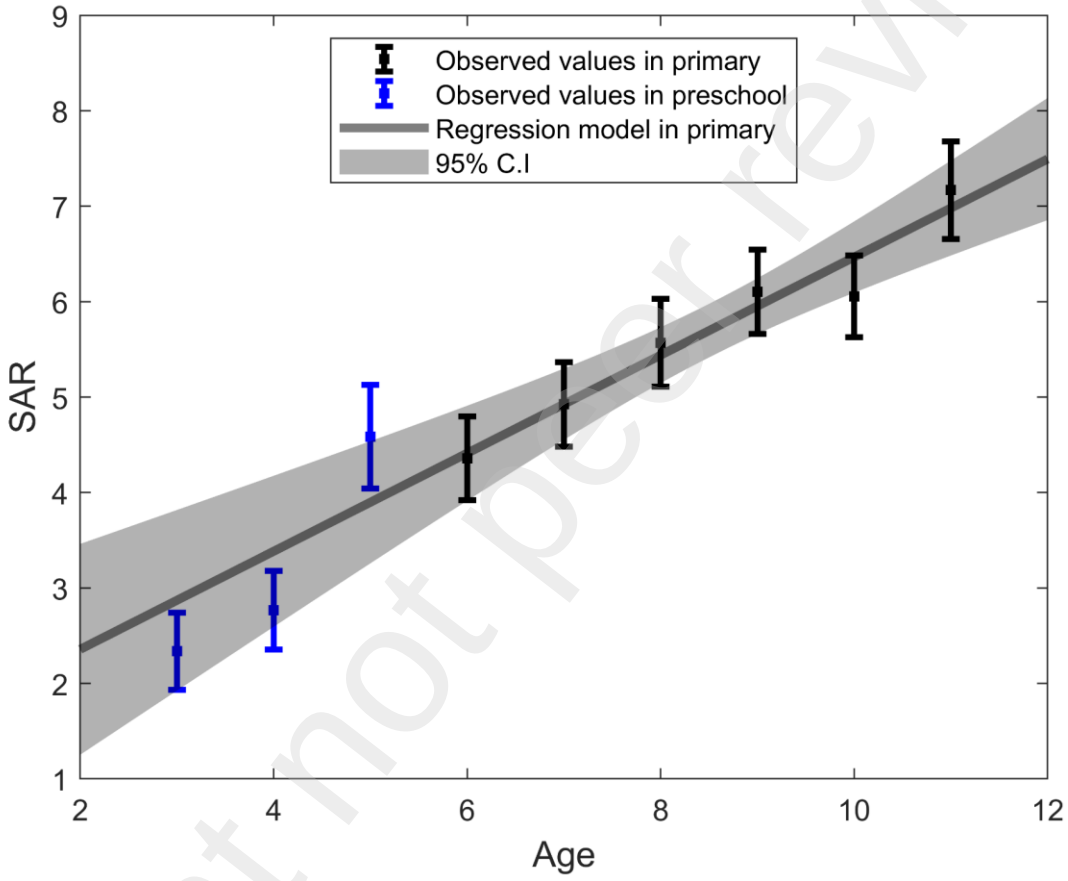


Figure S3. Linear regression model of effective reproduction number (R*) with age. The regression model is fitted to data of primary school children (6 to 11 years of age). The grey area indicates the 95% CI of the fitting. Observed values are split between those that were used in the regression model (black dots, children in primary education) and those that were not (blue dots, preschool children).

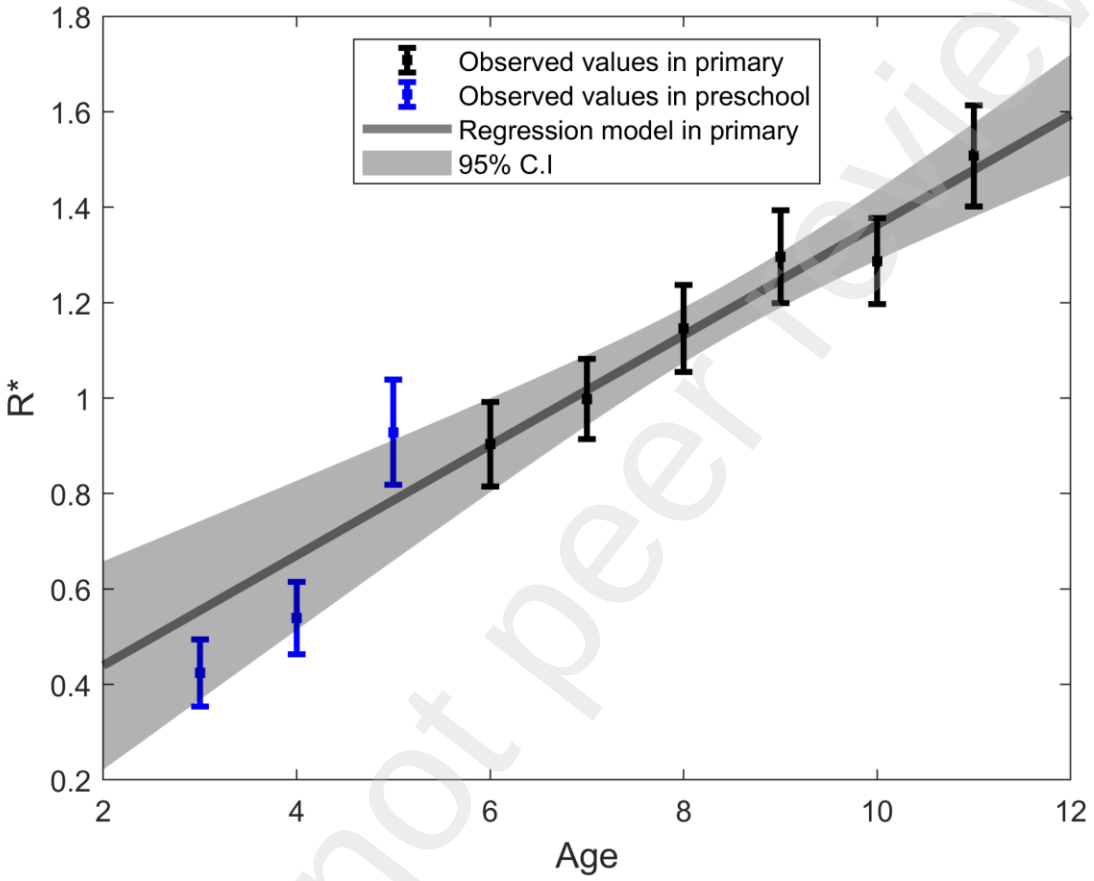


EXHIBIT I

Association between School Mask Mandates and SARS-CoV-2 Student Infections: Evidence from a Natural Experiment of Neighboring K-12 Districts in North Dakota

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Abstract

There is still considerable debate about whether mask mandates in the K-12 schools limit transmission of SARS-CoV-2 in children attending school. Randomized data about the effectiveness of mask mandates in children is still entirely lacking. Our study took advantage of a unique natural experiment of two adjacent K-12 school districts in Fargo, North Dakota, one which had a mask mandate and one which did not in the fall of the 2021-2022 academic year. In the winter, both districts adopted a masks-optional policy allowing for a partial crossover study design. We observed no significant difference between student case rates while the districts had differing masking policies (IRR 0.99; 95% CI: 0.92 to 1.07) nor while they had the same mask policies (IRR 1.04; 95% CI: 0.92 to 1.16). The IRRs across the two periods were also not significantly different (p = 0.40). Our findings contribute to a growing body of literature which suggests school-based mask mandates have limited to no impact on the case rates of COVID-19 among K-12 students.

Introduction

School districts across the nation have implemented mask mandates for children in the hope of reducing COVID-19 transmission, but the impact of school-based mask mandates on COVID-19 transmission in children is not fully established. While observational studies of school mask mandates have had conflicting results, randomized studies have failed to detect an impact of masking on participants under 50 years of age [1-6]. Here we report the results of a natural experiment in two large K-12 school districts in Fargo, North Dakota, Fargo Public Schools (FPS) and West Fargo Public Schools (WF), to estimate the association between school mask mandates and COVID-19 infections. Our study population is unique because the districts are adjacent to each other in the same county and have similar student demographics, COVID-19 mitigation policies and staff vaccination rates. At the start of the Fall 2021 semester, FPS mandated masks and WF did not. On January 17, 2022, FPS also moved to a mask optional policy, creating a unique natural experiment to study school-based mask mandates.

Results

Table 1 shows school characteristics, total number of positive student tests and the COVID-19 risk mitigation measures implemented by each district. Both school districts had similar COVID-19 mitigation policies, although FPS had more stringent rules for quarantining close contacts. WF also had higher percentages of low-income and minority students. Figure 1 shows that overall trends in COVID-19 incidence among students were similar in the two districts. From August 26, 2021, to January 17, 2022, cumulative incidence in the mask compulsory school district was almost identical to cumulative incidence in the mask-optional district (WF: 1596/12,254 [13.0%; 95% CI: 12.4, 13.6]); FPS: 1475/11,419 [12.9% 95% CI: 12.3, 13.6%]). IRR 0.99; 95% CI: 0.92, 1.07). Post January 17, 2022, when both districts had mask-optional policies, case rates were also not significantly different (WF: 622/12,254 [5.1%; 95% CI: 4.7, 5.5]; FPS: 600/11,419 [5.3%; 95% CI: 4.9, 5.7]). IRR 1.04; 95% CI: 0.92, 1.16). The IRRs across the two periods were also not statistically significantly different (p value = 0.40). Based on an incidence rate of 13%, we had 80% power to detect a 1.2% difference in incidence between the districts.

Discussion

This study found that K-12 school mask mandates were not associated with significantly lower COVID-19 student case rates. This is consistent with adult randomized data on community cloth masking [6], multiple observational studies of school mask mandates [1,2,3] and a systematic review of medical or surgical cloth masking for influenza [8]. Studies of school-based mask mandates are particularly prone to bias [9] as student cases detected within the school may be at least 20x more likely to have been contracted outside of school than in [10]. Other observational studies have reported a negative association between school mask mandates and SARS-CoV-2 cases [11,12,13] but may have had important methodological limitations [9,14].

The strengths of the study include the similarities of the two K-12 districts including size, adjacent location within a county, similar demographics, and COVID-19 policies beyond masking. Second, the study includes a partial crossover design with the mask mandate district dropping its mandate during the study period. The partial crossover should have revealed the presence of any major confounding effect. The lack of significant difference between the districts however persisted post partial crossover, when both districts had masks-optional policies. Based on the size of our study and the incidence rate during the study period, we had 80% power to detect a 1.2% difference in incidence between the districts, so if we failed to detect a benefit of mask mandates, that benefit would have been very small. An additional strength of this study is it includes a relatively long study period with data from both the delta and omicron waves.

The study also has limitations. We did not have information on the number of tests performed by each school district, although both school districts had similar testing access and policies. Second, this study did not specifically evaluate in-school transmission. We also did not have data on the types of masks being worn or on masking adherence rates in the two school districts; however, parents and administrators indicated via personal communication with SH, masking was near universal in the district with a mask mandate and 5% or less in the masks-optional district [15]. In conclusion, school mask mandates were not found to be associated with significantly lower student SARS-CoV-2 case rates. This is consistent with a growing body of scientific literature and should be taken into consideration and weighed with the harms and discomfort of masking in the educational setting.

Methods

We obtained data on student enrollment, masking policies, masking compliance, demographic information and COVID-19 mitigation measures from district administrators and official school district websites. We obtained publicly available data on new student COVID-19 case rates in each school district from August 26, 2021, to March 2, 2022, from the North Dakota Department of Health website [https://www.health.nd.gov/k-12-school-dashboard]. We determined the COVID-19 student case rates and incidence rate ratio (IRR) as well as 95% confidence intervals (CI) for case rates between the districts, both while FPS had a mask mandate and WF did not and then when FPS dropped their mandate on January 17, 2022, (after which both districts had mask-optional policies). The study is not considered human subjects research as the data were not collected specifically for this study and do not have subject identifiers. We used Stata Version 17 and UCSF Sample Size Calculator [7] for the analysis. A post-hoc power calculation was performed using ClinCalc. Our report follows the STROBE reporting guidelines for observational studies.

Declarations

Acknowledgements

We would like to thank Emily J Allen, PhD, for her graphic design assistance. This study received funding from the University of Southern California.

Author Contributions

SH, TH and NS conceived the study design, SH, JS and NS collected the data, NS, JS and TH analysed the data and NS and TH interpreted the results. All authors reviewed the manuscript.

Competing Interests

TH has provided expert testimony for multiple lawsuits involving SARS-CoV-2 in-school transmission and student mask mandates. Otherwise, the authors declare no relevant competing interests.

Data availability

The raw data used for our calculations are available online at https://github.com/tracybethhoeg/North-Dakota-Mask-Study

The data used in this analysis are also publicly available North Dakota Department of Health website available at https://www.health.nd.gov/k-12-school-dashboard , accessed March 31, 2022. Information on enrollment from school district websites. WFPS: https://www.west-fargo.k12.nd.us/site/default.aspx?PageType=3&DomainID=22&ModuleInstanceID=11253&ViewID=6446EE88-D30C-497E-9316-3F8874B3E108&RenderLoc=0&FlexDataID=24239&PageID=37 accessed March 31, 2022. FPS: https://www.fargo.k12.nd.us/page/365 accessed March 31, 2022.

Ethics declarations

According to the NIH's Human Subjects Research Decision Tool (https://grants.nih.gov/policy/humansubjects/hs-decision.htm), this study was IRB exempt.

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Table 1

Table 1: School district characteristics and COVID-19 risk mitigation measures in Fall 2021 in study school districts

School Policies and Characteristics	West Fargo Public School District (School District with mask optional policy)	Fargo Public School District (School district with mandatory masking till Jan 17, 2022 and mask optional thereafter)
Student Enrollment in August 2021[a]	12,254	11,419
Total Number (% [95% CI]) of students testing positive up to 1/17/22	1596 (13.0% [12.4, 13.6])	1475 (12.9% [12.3, 13.6])
Total Number (% [95% CI]) of Students Testing Positive After 1/17/22	622 (5.1% [4.7, 5.5])	600 (5.3% [4.9, 5.7])
Average Class Size[b]	21-Elementary School, 23-Middle School, 23-High School	18.7-Elementary School, 21.2 Middle School, 20.1 High School
Race/Ethnicity of Students in 2021-2022 School Year[c]	71% White, 17% African American, Asian 4%, Hispanic 4%	69% White, 16% African American, Asian 4%, Hispanic 6%
Fraction of Low-Income students in 2021-2022 School Year[c]	23%	18%
Staff vaccination rate at school year start[b]	74.5%	77.6%
Face covering required when using district provided transportation[d]	Yes	Yes
Mandatory physical distancing[d]	No	No
Regular cleaning of high touch surfaces[d]	Yes	Yes
Does the school conduct routine COVID testing of all children? [d]	No. Children are given the option to use a rapid test on certain times and days at school sites. Children need parent permission and need to preregister. Children who develop symptoms at school have the option to test with parent permission when parent picks up child from school.	No. The district has 2 testing sites where students and their families can get tested, but it is voluntary. A parent needs to escort their student to the site or have a permission slip filed in.

School activities, events, assemblies, and gatherings allowed[d]	Yes	Yes
Has the school upgraded ventilation systems? [d]	Yes, iMod air filtration units have been installed in every school	Yes, Needlepoint Bi-polar Ionization units have been installed in each school buildings HVAC system.
Symptomatic students sent home[d]	Yes	Yes
How long are COVID+ children required to stay at home? [d]	10 days	10 days
When can symptomatic children return to school? [d]	Students with symptoms other than loss of taste or smell can return when they have been symptom free for 24 hours without use of medications. Students with loss of taste or smell can return after 10 days or the following day after a negative test	Students can return after 10 days from onset or date of negative COVID test whichever is earlier, and free of fever for 24 hours with improving symptoms.
Are children in the same classroom as COVID+ case required to quarantine? [d]	No, a notification is sent to all children in the classroom and parents are asked to monitor their children for symptoms	Not all of them. Only individuals who are close contacts (close contact being anyone within 6ft for 15 cumulative minutes or more in one day) and unmasked (unmasked contacts generally originate from lunch or snack times) are required to quarantine or go through testing protocol to remain in school.
Are “close contacts” required to quarantine? [d]	Only symptomatic individuals or persons who are unvaccinated and unwilling to do a rapid test every other day for seven days need to quarantine	Only unmasked close contacts are required to quarantine or submit to every other day testing to remain in school

Notes:

[a] Information from school district websites. WFPS: https://www.west-fargo.k12.nd.us/site/default.aspx?PageType=3&DomainID=22&ModuleInstanceID=11253&ViewID=6446EE88-D30C-497E-9316-3F8874B3E108&RenderLoc=0&FlexDataID=24239&PageID=37 accessed March 31, 2022.
FPS: https://www.fargo.k12.nd.us/page/365 accessed March 31, 2022.

[b] Information from communication with school administrators.

[c] Information from official portal for North Dakota state government.
WFPS: https://insights.nd.gov/Education/District/EnrollmentDemographics/09006 accessed March 31, 2022.
FPS: https://insights.nd.gov/Education/District/EnrollmentDemographics/09001 accessed March 31, 2022.

[d] Information from school COVID-19 protocols. WFPS: https://www.west-fargo.k12.nd.us/cms/lib/ND02203445/Centricity/Domain/2935/COVID%20Health%20and%20Safety%20Protocols%202021-22.pdf accessed March 31, 2022. FPS: https://drive.google.com/file/d/1qyn7DNvCnSuKszHqM8C8BTAixmnCbToS/view accessed March 31, 2022.

Figures

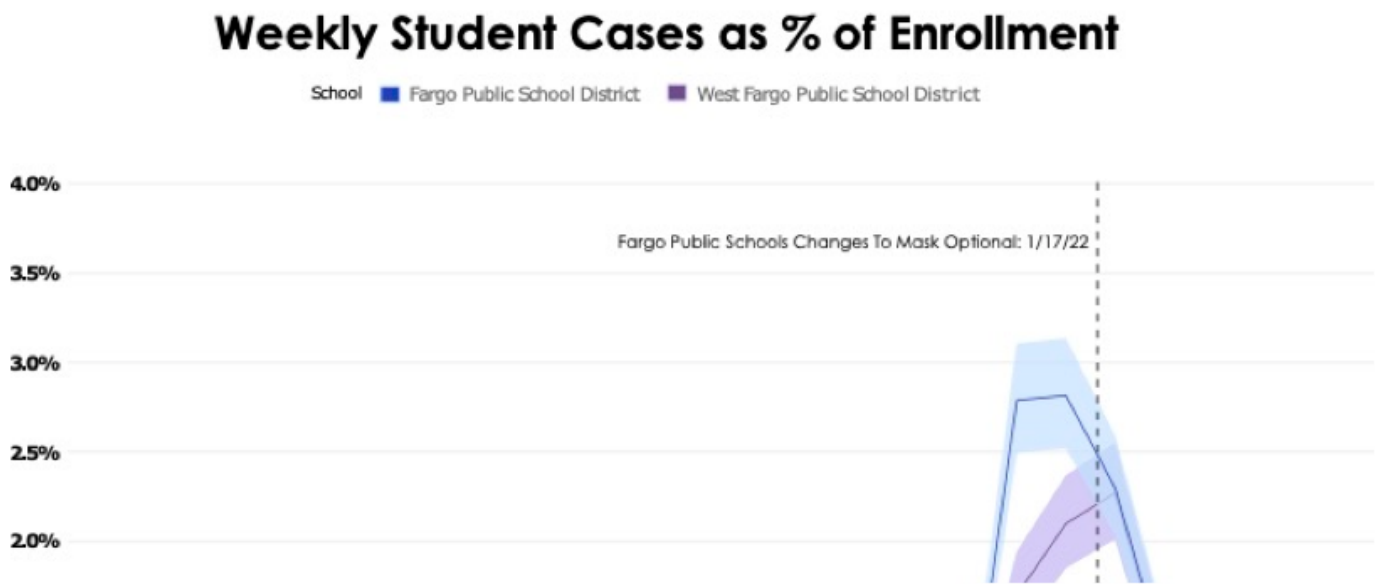

Figure 1

Weekly COVID-19 Incidence in School Districts Since Start of 2021 School Year

Notes: Shaded region represents 95% confidence intervals. Information on new student COVID-19 cases from North Dakota Department of Health website available at https://www.health.nd.gov/k-12-school-dashboard , accessed March 31, 2022. Information on enrollment from school district websites. WFPS: https://www.west-fargo.k12.nd.us/site/default.aspx?PageType=3&DomainID=22&ModuleInstanceID=11253&ViewID=6446EE88-D30C-497E-9316-3F8874B3E108&RenderLoc=0&FlexDataID=24239&PageID=37 accessed March 31, 2022. FPS: https://www.fargo.k12.nd.us/page/365 accessed March 31, 2022.

EXHIBIT J

Title page

Title: Use of face masks did not impact COVID-19 incidence among 10–12-year-olds in Finland

Authors: Aapo Juutinen[1] BS, Emmi Sarvikivi[1] MD, Päivi Laukkanen-Nevala[1] PhD, Otto Helve[1] MD

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Abstract

In fall 2021 in Finland, the recommendation to use face masks in schools for pupils ages 12 years and above was in place nationwide. Some cities recommended face masks for younger pupils as well. Our aim was to compare COVID-19 incidence among 10–12-year-olds between cities with different recommendations on the use of face masks in schools. COVID-19 case numbers were obtained from the National Infectious Disease Registry (NIDR) of the Finnish Institute for Health and Welfare, where clinical microbiology laboratories report all positive SARS-CoV-2 tests with unique identifiers in a timely manner, including information such as date of birth, gender, and place of residence. The NIDR is linked to the population data registry, enabling calculation of incidences. We compared the differences in trends of 14-day incidences between Helsinki and Turku among 10–12-year-olds, and for comparison, also among ages 7–9 and 30–49 by using joinpoint regression. According to our analysis, no additional effect seemed to be gained from this, based on comparisons between the cities and between the age groups of the unvaccinated children (10–12 years versus 7–9 years).

Introduction

In fall 2021, the number of new COVID-19 cases was high globally [1]. In Finland, the delta variant had begun to spread in June, and by the end of July, delta was the dominant variant across the country. At that time, face mask use was recommended nationally in schools in children age 12 years and over. In some Finnish cities, this recommendation was extended to pupils age 10 years and above. The World Health Organization (WHO) stated that a risk-based approach should be applied to the decision to mask children between ages six and 11 years [2].

Our aim was to compare COVID-19 incidence among 10–12-year-olds between cities with different recommendations on the use of face masks in schools.

Methods

COVID-19 case numbers were obtained from the National Infectious Disease Registry (NIDR) of the Finnish Institute for Health and Welfare, where clinical microbiology laboratories report all positive SARS-CoV-2 tests with unique identifiers in a timely manner, including information such as date of birth, gender, and place of residence [3]. The NIDR is linked to the population data registry, enabling calculation of incidences. Moving averages of 14-day incidences were used as a dependent variable in the statistical analysis. Estimated average percent changes (APC) were calculated in one-month periods. All figures were created using RStudio (R version 3.6.3) and all statistical analyses performed using the open source Joinpoint software (Joinpoint Regression Program, National Cancer Institute, USA, Version 4.9.0.0) as described previously [4].

Helsinki (population 661 887) and Turku (population 195 818) were selected for comparison, since the baseline incidence in the cities had been similar in August and September 2021. Helsinki implemented the national recommendation on face mask use at schools, while Turku had an extended recommendation that included those 10 years old and above.

Results

We compared the differences in trends of 14-day incidences between Helsinki and Turku among 10–12-year-olds, and for comparison, also among ages 7–9 and 30–49, with the latter group representing the likely age group of the pupils' parents. Moving averages of 14-day incidences and estimated average percentual changes (APC) are presented in Figure 1a. In August, there were no differences in APC values (difference, -0.1; *P*=.8). However, the APC was higher in September in Turku (difference, 2.9; *P*<.001), in October in Helsinki (difference, 2.3; *P*<.001), and in November in Turku (difference, -2.2; *P*<.001). The incidence for 7–9-year-olds was similar to that of 10–12-year-olds, but no such steep changes in November were observed in the incidence for 30–49-year-olds in either city (Figure 1b).

Discussion

In fall 2021 in Finland, the recommendation to use face masks in schools for pupils ages 12 years and above was in place nationwide. Some cities recommended face masks for younger pupils as well, allowing us to assess the impact of face mask use in schools for younger pupils as a supplementary pandemic control measure. According to our analysis, no additional effect seemed to be gained from this, based on comparisons between the cities and between the age groups of the unvaccinated children (10–12 years versus 7–9 years).

The major limitation of our study is that schools are not the only place for children to have social contacts and be exposed to SARS-CoV-2. However, the lower incidence in vaccinated adults would indicate a lower risk of infection at home. Therefore, one would expect to see some differences in the age-specific incidences if masking was an effective way to control transmission in schools. Also, the timing for these observations was during a high circulation of the delta variant across the country. These results may not be valid during the omicron era.

Acknowledgements

We are grateful to Claire Foley for proofreading the manuscript.

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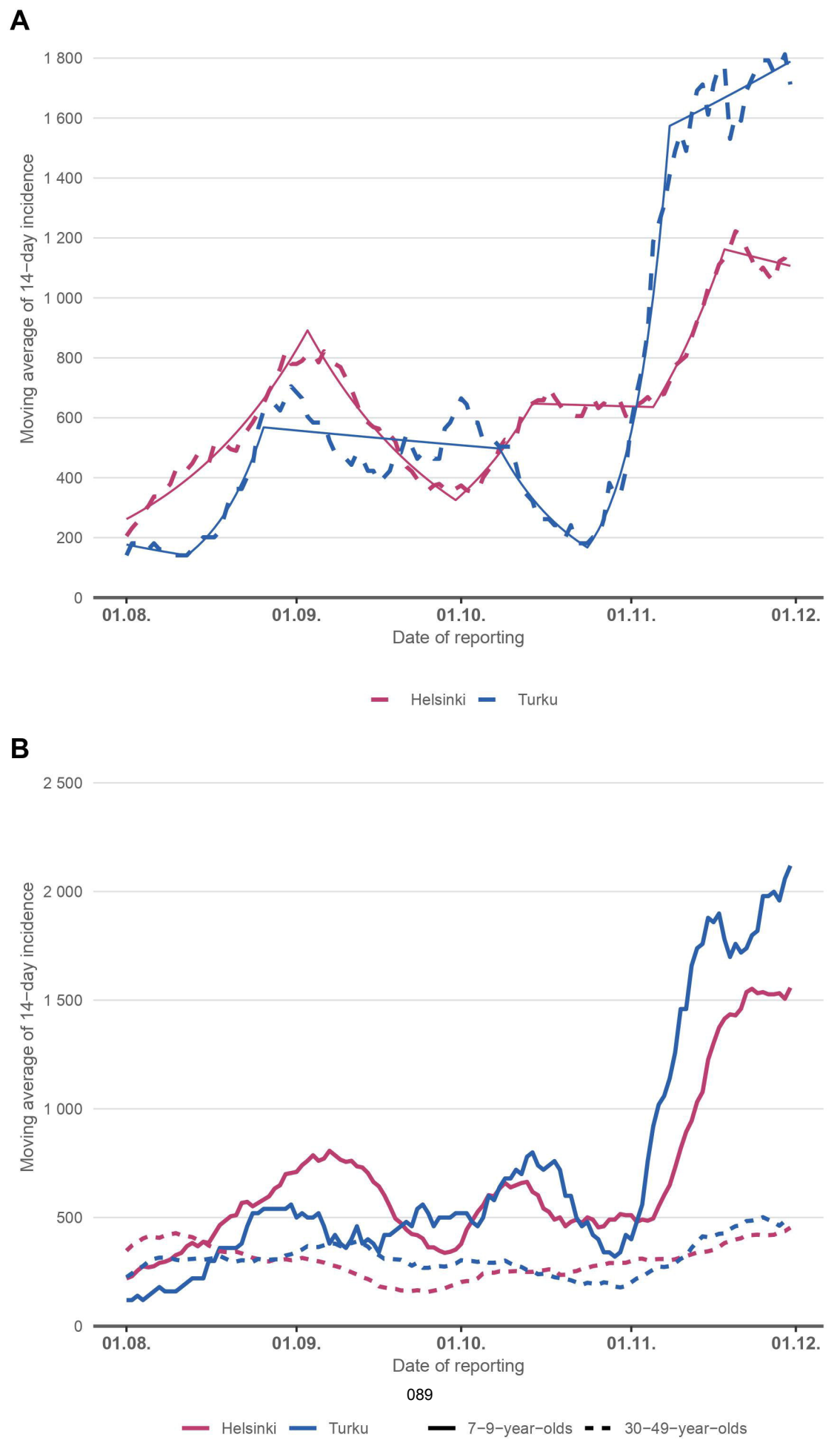
3. **Sajanti E, et al**. (2017) Lyme Borreliosis in Finland, 1995-2014. *Emerging Infectious Diseases*; Aug: 23: 1282-1288. doi: 10.3201/eid2308.161273.
4. **Juutinen A, et al**. (2021) Closing lower secondary schools had no impact on COVID-19 incidence in 13–15-year-olds in Finland. *Epidemiology and Infection*; 149:e233. doi:10.1017/S0950268821002351.

Figure legends

Figure 1. a) Moving average of COVID-19 incidence for 14 days (dashed line) and estimated APC values (solid line) in 10–12-year-olds in Helsinki (face masks not used in schools in this age group) and in Turku

(face masks were used). b) Moving average of COVID-19 incidence for 14 days in 7–9-year-olds (solid line) and in 30–49-year-olds (dashed line) in Helsinki and Turku.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Turku
7−9−year−olds
30−49−year−olds

EXHIBIT K

Annals of Internal Medicine ORIGINAL RESEARCH

Effectiveness of Adding a Mask Recommendation to Other Public Health Measures to Prevent SARS-CoV-2 Infection in Danish Mask Wearers

A Randomized Controlled Trial

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Background: Observational evidence suggests that mask wearing mitigates transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It is uncertain if this observed association arises through protection of uninfected wearers (protective effect), via reduced transmission from infected mask wearers (source control), or both.

Objective: To assess whether recommending surgical mask use outside the home reduces wearers' risk for SARS-CoV-2 infection in a setting where masks were uncommon and not among recommended public health measures.

Design: Randomized controlled trial (DANMASK-19 [Danish Study to Assess Face Masks for the Protection Against COVID-19 Infection]). (ClinicalTrials.gov: NCT04337541)

Setting: Denmark, April and May 2020.

Participants: Adults spending more than 3 hours per day outside the home without occupational mask use.

Intervention: Encouragement to follow social distancing measures for coronavirus disease 2019, plus either no mask recommendation or a recommendation to wear a mask when outside the home among other persons together with a supply of 50 surgical masks and instructions for proper use.

Measurements: The primary outcome was SARS-CoV-2 infection in the mask wearer at 1 month by antibody testing, polymerase chain reaction (PCR), or hospital diagnosis. The secondary outcome was PCR positivity for other respiratory viruses.

Results: A total of 3030 participants were randomly assigned to the recommendation to wear masks, and 2994 were assigned to control; 4862 completed the study. Infection with SARS-CoV-2 occurred in 42 participants recommended masks (1.8%) and 53 control participants (2.1%). The between-group difference was −0.3 percentage point (95% CI, −1.2 to 0.4 percentage point; $P = 0.38$) (odds ratio, 0.82 [CI, 0.54 to 1.23]; $P = 0.33$). Multiple imputation accounting for loss to follow-up yielded similar results. Although the difference observed was not statistically significant, the 95% CIs are compatible with a 46% reduction to a 23% increase in infection.

Limitation: Inconclusive results, missing data, variable adherence, patient-reported findings on home tests, no blinding, and no assessment of whether masks could decrease disease transmission from mask wearers to others.

Conclusion: The recommendation to wear surgical masks to supplement other public health measures did not reduce the SARS-CoV-2 infection rate among wearers by more than 50% in a community with modest infection rates, some degree of social distancing, and uncommon general mask use. The data were compatible with lesser degrees of self-protection.

Primary Funding Source: The Salling Foundations.

Ann Intern Med. 2021;174:335–343. doi:10.7326/M20-6817 **Annals.org**
For author, article, and disclosure information, see end of text.
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Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the cause of coronavirus disease 2019 (COVID-19), has infected more than 54 million persons (1, 2). Measures to impede transmission in health care and community settings are essential (3). The virus is transmitted person-to-person, primarily through the mouth, nose, or eyes via respiratory droplets, aerosols, or fomites (4, 5). It can survive on surfaces for up to 72 hours (6), and touching a contaminated surface followed by face touching is another possible route of transmission (7). Face masks are a plausible means to reduce transmission of respiratory viruses by minimizing the risk that respiratory droplets will reach wearers' nasal or oral mucosa. Face masks are also hypothesized to reduce face touching (8, 9), but frequent face and mask touching has been reported among health care personnel (10). Observational evidence supports the efficacy of face masks in health care settings (11, 12) and as source control in patients infected with SARS-CoV-2 or other coronaviruses (13).

An increasing number of localities recommend masks in community settings on the basis of this observational evidence, but recommendations vary and controversy

See also:

Editorial comments 419, 421

Web-Only
Supplement

exists (14). The World Health Organization (WHO) and the U.S. Centers for Disease Control and Prevention (15) strongly recommend that persons with symptoms or known infection wear masks to prevent transmission of SARS-CoV-2 to others (source control) (16). However, WHO acknowledges that we lack evidence that wearing a mask protects healthy persons from SARS-CoV-2 (prevention) (17). A systematic review of observational studies reported that mask use reduced risk for SARS, Middle East respiratory syndrome, and COVID-19 by 66% overall, 70% in health care workers, and 44% in the community (12). However, surgical and cloth masks were grouped in preventive studies, and none of the 3 included non–health care studies related directly to COVID-19. Another systematic review (18) and American College of Physicians recommendations (19) concluded that evidence on mask effectiveness for respiratory infection prevention is stronger in health care than community settings.

Observational evidence suggests that mask wearing mitigates SARS-CoV-2 transmission, but whether this observed association arises because masks protect uninfected wearers (protective effect) or because transmission is reduced from infected mask wearers (source control) is uncertain. Here, we report a randomized controlled trial (20) that assessed whether a recommendation to wear a surgical mask when outside the home among others reduced wearers' risk for SARS-CoV-2 infection in a setting where public health measures were in effect but community mask wearing was uncommon and not recommended.

METHODS

Trial Design and Oversight

DANMASK-19 (Danish Study to Assess Face Masks for the Protection Against COVID-19 Infection) was an investigator-initiated, nationwide, unblinded, randomized controlled trial (ClinicalTrials.gov: NCT04337541). The trial protocol was registered with the Danish Data Protection Agency (P-2020-311) (Part 10 of the **Supplement**, available at Annals.org) and published (21). The researchers presented the protocol to the independent regional scientific ethics committee of the Capital Region of Denmark, which did not require ethics approval (H-20023709) in accordance with Danish legislation (Parts 11 and 12 of the **Supplement**). The trial was done in accordance with the principles of the Declaration of Helsinki.

Participants and Study Period

During the study period (3 April to 2 June 2020), Danish authorities did not recommend use of masks in the community and mask use was uncommon (<5%) outside hospitals (22). Recommended public health measures included quarantining persons with SARS-CoV-2 infection, social distancing (including in shops and public transportation, which remained open), limiting the number of persons seen, frequent hand hygiene and cleaning, and limiting visitors to hospitals and nursing homes (23, 24). Cafés and restaurants were closed during the study until 18 May 2020.

Eligible persons were community-dwelling adults aged 18 years or older without current or prior symptoms or diagnosis of COVID-19 who reported being outside the home among others for at least 3 hours per day and who did not wear masks during their daily work. Recruitment involved media advertisements and contacting private companies and public organizations. Interested citizens had internet access to detailed study information and to research staff for questions (Part 3 of the **Supplement**). At baseline, participants completed a demographic survey and provided consent for researchers to access their national registry data (Parts 4 and 5 of the **Supplement**). Recruitment occurred from 3 through 24 April 2020. Half of participants were randomly assigned to a group on 12 April and half on 24 April.

Intervention

Participants were enrolled and data registered using Research Electronic Data Capture (REDCap) software (25). Eligible participants were randomly assigned 1:1 to the mask or control group using a computer algorithm and were stratified by the 5 regions of Denmark (**Supplement Table 1**, available at Annals.org). Participants were notified of allocation by e-mail, and study packages were sent by courier (Part 7 of the **Supplement**). Participants in the mask group were instructed to wear a mask when outside the home during the next month. They received 50 three-layer, disposable, surgical face masks with ear loops (TYPE II EN 14683 [Abena]; filtration rate, 98%; made in China). Participants in both groups received materials and instructions for antibody testing on receipt and at 1 month. They also received materials and instructions for collecting an oropharyngeal/nasal swab sample for polymerase chain reaction (PCR) testing at 1 month and whenever symptoms compatible with COVID-19 occurred during follow-up. If symptomatic, participants were strongly encouraged to seek medical care. They registered symptoms and results of the antibody test in the online REDCap system. Participants returned the test material by prepaid express courier.

Written instructions and instructional videos guided antibody testing, oropharyngeal/nasal swabbing, and proper use of masks (Part 8 of the **Supplement**), and a help line was available to participants. In accordance with WHO recommendations for health care settings at that time, participants were instructed to change the mask if outside the home for more than 8 hours. At baseline and in weekly follow-up e-mails, participants in both groups were encouraged to follow current COVID-19 recommendations from the Danish authorities.

Antibody and Viral PCR Testing

Participants tested for SARS-CoV-2 IgM and IgG antibodies in whole blood using a point-of-care test (Lateral Flow test [Zhuhai Livzon Diagnostics]) according to the manufacturer's recommendations and as previously described (26). After puncturing a fingertip with a lancet, they withdrew blood into a capillary tube and placed 1 drop of blood followed by 2 drops of saline in the test chamber in each of the 2 test plates (IgM and IgG). Participants reported IgM and IgG results separately as

"1 line present" (negative), "2 lines present" (positive), or "I am not sure, or I could not perform the test" (treated as a negative result). Participants were categorized as seropositive if they had developed IgM, IgG, or both. The manufacturer reported that sensitivity was 90.2% and specificity 99.2%. A previously reported internal validation using 651 samples from blood donors before November 2019 and 155 patients with PCR-confirmed SARS-CoV-2 infection estimated a sensitivity of 82.5% (95% CI, 75.3% to 88.4%) and specificity of 99.5% (CI, 98.7% to 99.9%) (26). We (27) and others (28) have reported that oropharyngeal/nasal swab sampling for SARS-CoV-2 by participants, as opposed to health care workers, is clinically useful. Descriptions of RNA extraction, primer and probe used, reverse transcription, preamplification, and microfluidic quantitative PCR are detailed in Part 6 of the Supplement.

Data Collection

Participants received 4 follow-up surveys (Parts 4 and 5 of the Supplement) by e-mail to collect information on antibody test results, adherence to recommendations on time spent outside the home among others, development of symptoms, COVID-19 diagnosis based on PCR testing done in public hospitals, and known COVID-19 exposures.

Outcomes

The primary outcome was SARS-CoV-2 infection, defined as a positive result on an oropharyngeal/nasal swab test for SARS-CoV-2, development of a positive SARS-CoV-2 antibody test result (IgM or IgG) during the study period, or a hospital-based diagnosis of SARS-CoV-2 infection or COVID-19. Secondary end points included PCR evidence of infection with other respiratory viruses (Supplement Table 2, available at Annals.org).

Sample Size Calculations

The sample size was determined to provide adequate power for assessment of the combined composite primary outcome in the intention-to-treat analysis. Authorities estimated an incidence of SARS-CoV-2 infection of at least 2% during the study period. Assuming that wearing a face mask halves risk for infection, we estimated that a sample of 4636 participants would provide the trial with 80% power at a significance level of 5% (2-sided α level). Anticipating 20% loss to follow-up in this community-based study, we aimed to assign at least 6000 participants.

Statistical Analysis

Participants with a positive result on an antibody test at baseline were excluded from the analyses. We calculated CIs of proportions assuming binomial distribution (Clopper–Pearson).

The primary composite outcome (intention-to-treat) was compared between groups using the χ^2 test. Odds ratios and confidence limits were calculated using logistic regression. We did a per protocol analysis that included only participants reporting complete or predominant use of face masks as instructed. A conservative sensitivity analysis assumed that participants with a positive result on an antibody test at the end of the study who had not provided antibody test results at study entrance had had a positive result at entrance. To further examine the uncertainty of loss to follow-up, we did (post hoc) 200 imputations using the R package smcfcs, version 1.4.1 (29), to impute missing values of outcome. We included sex, age, type of work, time out of home, and outcome in this calculation.

Prespecified subgroups were compared by logistic regression analysis. In a post hoc analysis, we explored whether there was a subgroup defined by a constellation of participant characteristics for which a recommendation to wear masks seemed to be effective. We included sex, age, type of work, time out of home, and outcome in this calculation.

Two-sided *P* values less than 0.05 were considered statistically significant. Analyses were done using R, version 3.6.1 (R Foundation).

Role of the Funding Source

An unrestricted grant from the Salling Foundations supported the study, and the BESTSELLER Foundation donated the Livzon tests. The funders did not influence study design, conduct, or reporting.

RESULTS

Participants

A total of 17 258 Danish citizens responded to recruitment, and 6024 completed the baseline survey and fulfilled eligibility criteria. The first participants (group 1; $n = 2995$) were randomly assigned on 12 April 2020 and were followed from 14 to 16 April through 15 May 2020. Remaining participants (group 2; $n = 3029$) were randomly assigned on 24 April 2020 and were followed from 2 to 4 May through 2 June 2020. A total of 3030 participants were randomly assigned to the recommendation to wear face masks, and 2994 were assigned not to wear face masks (Figure); 4862 participants (80.7%) completed the study. Table 1 shows baseline characteristics, which were well balanced between groups. Participants reported having spent a median of 4.5 hours per day outside the home.

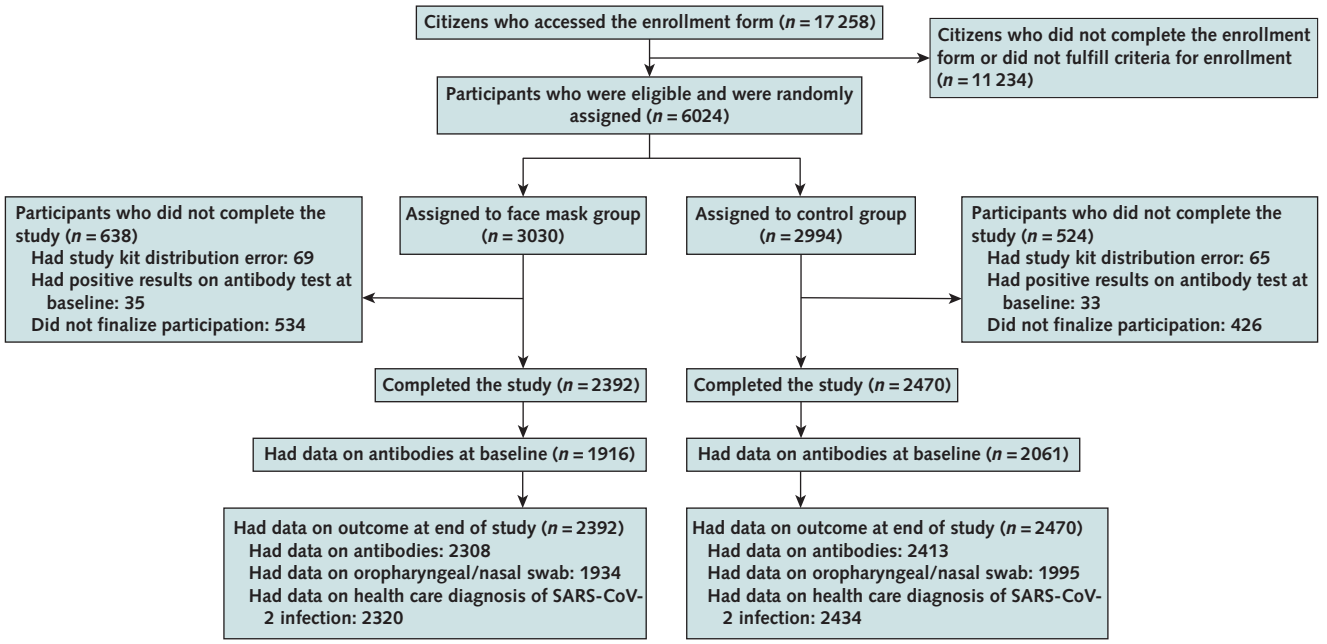
Adherence

Based on the lowest adherence reported in the mask group during follow-up, 46% of participants wore the mask as recommended, 47% predominantly as recommended, and 7% not as recommended.

Primary Outcome

The primary outcome occurred in 42 participants (1.8%) in the mask group and 53 (2.1%) in the control group. In an intention-to-treat analysis, the between-group difference was −0.3 percentage point (CI, −1.2 to 0.4 percentage point; $P = 0.38$) (odds ratio [OR], 0.82 [CI, 0.54 to 1.23]; $P = 0.33$) in favor of the mask group (Supplement Figure 1, available at Annals.org). When this analysis was repeated with multiple imputation for missing data due to loss to follow-up, it yielded similar results (OR, 0.81 [CI, 0.53 to 1.23]; $P = 0.32$). Table 2

Figure. Study flow diagram.



Inclusion and exclusion criteria are described in the Methods section, and criteria for completion of the study are given in the **Supplement** (available at Annals.org). SARS-CoV-2 = severe acute respiratory syndrome coronavirus 2.

provides data on the components of the primary end point, which were similar between groups.

In a per protocol analysis that excluded participants in the mask group who reported nonadherence (7%), SARS-CoV-2 infection occurred in 40 participants (1.8%) in the mask group and 53 (2.1%) in the control group (between-group difference, −0.4 percentage point [CI, −1.2 to 0.5 percentage point]; $P = 0.40$) (OR, 0.84 [CI, 0.55 to 1.26]; $P = 0.40$). **Supplement Figure 2** (available at Annals.org) provides results of the prespecified subgroup analyses of the primary composite end point. No statistically significant interactions were identified.

In the preplanned sensitivity analysis, those who had a positive result on an antibody test at 1 month but had not provided antibody results at baseline were considered to have had positive results at baseline ($n = 18$)—that is, they were excluded from the analysis. In this analysis, the primary outcome occurred in 33 participants (1.4%) in the face mask group and 44 (1.8%) in the control group (between-group difference, −0.4 percentage point [CI, −1.1 to 0.4 percentage point]; $P = 0.22$) (OR, 0.77 [CI, 0.49 to 1.22]; $P = 0.26$).

Three post hoc (not preplanned) analyses were done. In the first, which included only participants reporting wearing face masks "exactly as instructed," infection (the primary outcome) occurred in 22 participants (2.0%) in the face mask group and 53 (2.1%) in the control group (between-group difference, −0.2 percentage point [CI, −1.3 to 0.9 percentage point]; $P = 0.82$) (OR, 0.93 [CI, 0.56 to 1.54]; $P = 0.78$). The second post hoc analysis excluded participants who did not provide antibody test results at baseline; infection occurred in 33 participants (1.7%) in the face mask group and 44 (2.1%) in the control group (between-group difference, −0.4 percentage point [CI, −1.4 to 0.4 percentage point]; $P = 0.33$) (OR, 0.80 [CI, 0.51 to 1.27]; $P = 0.35$). In the third post hoc analysis, which investigated constellations of patient characteristics, we did not find a subgroup where face masks were effective at conventional levels of statistical significance (data not shown).

A total of 52 participants in the mask group and 39 control participants reported COVID-19 in their household. Of these, 2 participants in the face mask group and 1 in the control group developed SARS-CoV-2 infection, suggesting that the source of most observed infections was outside the home. Reported symptoms did not differ between groups during the study period (**Supplement Table 3**, available at Annals.org).

Secondary Outcomes

In the mask group, 9 participants (0.5%) were positive for 1 or more of the 11 respiratory viruses other than SARS-CoV-2, compared with 11 participants (0.6%) in the control group (between-group difference, −0.1 percentage point [CI, −0.6 to 0.4 percentage point]; $P = 0.87$) (OR, 0.84 [CI, 0.35 to 2.04]; $P = 0.71$). Positivity for any

virus, including SARS-CoV-2, occurred in 9 mask participants (0.5%) versus 16 control participants (0.8%) (between-group difference, −0.3 percentage point [CI, −0.9 to 0.2 percentage point]; $P = 0.26$) (OR, 0.58 [CI, 0.25 to 1.31]; $P = 0.19$).

Discussion

In this community-based, randomized controlled trial conducted in a setting where mask wearing was uncommon and was not among other recommended public health measures related to COVID-19, a recommendation to wear a surgical mask when outside the home among others did not reduce, at conventional levels of statistical significance, incident SARS-CoV-2 infection compared with no mask recommendation. We designed the study to detect a reduction in infection rate from 2% to 1%. Although no statistically significant difference in SARS-CoV-2 incidence was observed, the 95% CIs are compatible with a possible 46% reduction to 23% increase in infection among mask wearers. These findings do offer evidence about the degree of protection mask wearers can anticipate in a setting where others are not wearing masks and where other public health measures, including social distancing, are in effect. The findings, however, should not be used to conclude that a recommendation for everyone to wear masks in the community would not be effective in reducing SARS-CoV-2 infections, because the trial did not test the role of masks in source control of SARS-CoV-2 infection. During the study period, authorities did not recommend face mask use outside hospital settings and mask use was rare in community settings (22). This means that study participants' exposure was overwhelmingly to persons not wearing masks.

The observed infection rate was similar to that reported in other large Danish studies during the study period (26, 30). Of note, the observed incidence of SARS-CoV-2 infection was higher than we had estimated when planning a sample size that would ensure more than 80% power to detect a 50% decrease in infection. The intervention lasted only 1 month and was carried out during a period when Danish authorities recommended quarantine of diagnosed patients, physical distancing, and hand hygiene as general protective means against SARS-CoV-2 transmission (23). Cafés and restaurants were closed through 18 May, but follow-up of the second randomized group continued through 2 June.

The first randomized group was followed while the Danish society was under lockdown. Reopening occurred (18 May 2020) during follow-up of the second group of participants, but it was not reflected in the outcome because infection rates were similar between groups (Supplement Figure 2). The relative infection rate between mask wearers and those not wearing masks would most likely be affected by changes in applied protective means or in the virulence of SARS-CoV-2, whereas the rate difference between the 2 groups would probably not be affected solely by a higher–or lower–number of infected citizens.

Although we saw no statistically significant difference in presence of other respiratory viruses, the study was not sufficiently powered to draw definite conclusions about the protective effect of masks for other viral infections. Likewise, the study had limited power for any of the subgroup analyses.

The primary outcome was mainly defined by antibodies against SARS-CoV-2. This definition was chosen because the viral load of infected patients may be only transiently detectable (31, 32) and because approximately half of persons infected with SARS-CoV-2 are asymptomatic (26, 33). Masks have been hypothesized to reduce inoculum size (34) and could increase the likelihood that infected mask users are asymptomatic, but this hypothesis has been challenged (35). For these reasons, we did not

Table 1. Characteristics of Participants Completing the Study

Characteristic	Face Mask Group (*n* = 2392)	Control Group (*n* = 2470)
Mean age (SD), *y*	47.4 (14)	47.0 (13)
Female sex, *n (%)*	1545 (64.6)	1571 (63.6)
Smoker, *n (%)*	478 (20.0)	499 (20.2)
Wears eyeglasses daily, *n (%)*	956 (40.0)	929 (37.6)
Capital Region resident, *n (%)**	1220 (51.0)	1289 (52.2)
Provided antibody test results at baseline, *n (%)*	1916 (80.1)	2061 (83.4)
Occupation, *n (%)*		
Shop employee	108 (4.5)	85 (3.4)
Cashier	101 (4.2)	96 (3.9)
Craftsperson	110 (4.6)	103 (4.2)
Office employee	265 (11.1)	312 (12.6)
Manager	111 (4.6)	108 (4.4)
Transportation employee	617 (25.8)	625 (25.3)
Service employee	107 (4.5)	104 (4.2)
Home care/nursing home employee	197 (8.2)	229 (9.3)
Early childhood care staff	89 (3.7)	88 (3.6)
Salesperson	37 (1.5)	47 (1.9)
Other	650 (27.2)	673 (27.2)

* According to national authority data, the Capital Region had a higher frequency of coronavirus disease 2019 than other Danish regions; see subgroup analyses in Supplement Figure 2 (available at Annals.org).

Table 2. Distribution of the Components of the Composite Primary Outcome

Outcome Component	Face Mask Group (*n* = 2392), *n (%)*	Control Group (*n* = 2470), *n (%)*	Odds Ratio (95% CI)*
Primary composite end point	42 (1.8)	53 (2.1)	0.82 (0.54–1.23)
Positive antibody test result†			
IgM	31 (1.3)	37 (1.5)	0.87 (0.54–1.41)
IgG	33 (1.4)	32 (1.3)	1.07 (0.66–1.75)
Positive SARS-CoV-2 RT-PCR	0 (0)	5 (0.2)	–
Health care–diagnosed SARS-CoV-2 or COVID-19	5 (0.2)	10 (0.4)	0.52 (0.18–1.53)

COVID-19 = coronavirus disease 2019; RT-PCR = reverse transcriptase polymerase chain reaction; SARS-CoV-2 = severe acute respiratory syndrome coronavirus 2.

* Calculated using logistic regression. The between-group differences in frequencies of positive SARS-CoV-2 RT-PCR were not statistically significant ($P = 0.079$).

† 124 participants in the mask group and 140 in the control group registered "not done" or unclear results of the antibody test—i.e., they were included in the analysis because they sent an oropharyngeal swab for PCR.

rely solely on identification of SARS-CoV-2 in oropharyngeal/nasal swab samples. As mentioned in the Methods section, an internal validation study estimated that the point-of-care test has 82.5% sensitivity and 99.5% specificity (26).

The observed rate of incident SARS-CoV-2 infection was similar to what was estimated during trial design. These rates were based on thorough screening of all participants using antibody measurements combined with PCR, whereas the observed official infection rates relied solely on PCR test–based estimates during the period. In addition, authorities tested only a small subset of primarily symptomatic citizens of the entire population, yielding low incidence rates. On this basis, the infection rates we report here are not comparable with the official SARS-CoV-2 infection rates in the Danish population. The eligibility requirement of at least 3 hours of exposure to other persons outside the home would add to this difference. Between 6 April and 9 May 2020, we found a similar seroprevalence of SARS-CoV-2 of 1.9% (CI, 0.8% to 2.3%) in Danish blood donors using the Livzon point-of-care test and assessed by laboratory technicians (36). Testing at the end of follow-up, however, may not have captured any infections contracted during the last part of the study period, but this would have been true in both the mask and control groups and was not expected to influence the overall findings.

The face masks provided to participants were high-quality surgical masks with a filtration rate of 98% (37). A published meta-analysis found no statistically significant difference in preventing influenza in health care workers between respirators (N95 [American standard] or FFP2 [European standard]) and surgical face masks (38). Adherence to mask use may be higher than observed in this study in settings where mask use is common. Some mask group participants (14%) reported adverse reactions from other citizens (**Supplement Table 4**, available at Annals.org). Although adherence may influence the protective effect of masks, sensitivity analyses had similar results across reported adherence.

How SARS-CoV-2 is transmitted—via respiratory droplets, aerosols, or (to a lesser extent) fomites—is not firmly established. Droplets are larger and rapidly fall to the ground, whereas aerosols are smaller ($\leq$5 μm) and may evaporate and remain in the air for hours (39). Transmission of SARS-CoV-2 may take place through multiple routes. It has been argued that for the primary route of SARS-CoV-2 spread—that is, via droplets—face masks would be considered effective, whereas masks would not be effective against spread via aerosols, which might penetrate or circumnavigate a face mask (37, 39). Thus, spread of SARS-CoV-2 via aerosols would at least partially explain the present findings. Lack of eye protection may also have been of importance, and use of face shields also covering the eyes (rather than face masks only) has been advocated to halt the conjunctival route of transmission (40, 41). We observed no statistically significant interaction between wearers and nonwearers of eyeglasses (**Supplement Figure 2**). Recent reports indicate that transmission of SARS-CoV-2 via fomites is unusual (42), but masks may alter behavior and potentially affect fomite transmission.

The present findings are compatible with the findings of a review of randomized controlled trials of the efficacy of face masks for prevention (as personal protective equipment) against influenza virus (18). A recent meta-analysis that suggested a protective effect of face masks in the non–health care setting was based on 3 observational studies that included a total of 725 participants and focused on transmission of SARS-CoV-1 rather than SARS-CoV-2 (12). Of 725 participants, 138 (19%) were infected, so the transmission rate seems to be higher than for SARS-CoV-2. Further, these studies focused on prevention of infection in healthy mask wearers from patients with a known, diagnosed infection rather than prevention of transmission from persons in their surroundings in general. In addition, identified comparators (control participants) not wearing masks may also have missed other protective means. Recent observational studies that indicate a protective association between mandated mask use in the community and SARS-CoV-2 transmission are limited by study design and simultaneous introduction of other public health interventions (14, 43).

Several challenges regarding wearing disposable face masks in the community exist. These include practical aspects, such as potential incorrect wearing, reduced adherence, reduced durability of the mask depending on type of mask and occupation, and weather. Such circumstances may necessitate the use of multiple face masks during the day. In our study, participants used a mean of 1.7 masks per weekday and 1.3 per weekend day (**Supplement Table 4**). Wearing a face mask may be physically unpleasant, and psychological barriers and other side effects have been described (44). "Face mask

policing" between citizens might reinforce use of masks but may be challenging. In addition, the wearer of a face mask may change to a less cautious behavior because of a false sense of security, as pointed out by WHO (17); accordingly, our face mask group seemed less worried (**Supplement Table 4**), which may explain their increased willingness to wear face masks in the future (**Supplement Table 5**, available at Annals.org). These challenges, including costs and availability, may reduce the efficacy of face masks to prevent SARS-CoV-2 infection.

The potential benefits of a community-wide recommendation to wear masks include combined prevention and source control for symptomatic and asymptomatic persons, improved attention, and reduced potential stigmatization of persons wearing masks to prevent infection of others (17). Although masks may also have served as source control in SARS-CoV-2–infected participants, the study was not designed to determine the effectiveness of source control.

The most important limitation is that the findings are inconclusive, with CIs compatible with a 46% decrease to a 23% increase in infection. Other limitations include the following. Participants may have been more cautious and focused on hygiene than the general population; however, the observed infection rate was similar to findings of other studies in Denmark (26, 30). Loss to follow-up was 19%, but results of multiple imputation accounting for missing data were similar to the main results. In addition, we relied on patient-reported findings on home antibody tests, and blinding to the intervention was not possible. Finally, a randomized controlled trial provides high-level evidence for treatment effects but can be prone to reduced external validity.

Our results suggest that the recommendation to wear a surgical mask when outside the home among others did not reduce, at conventional levels of statistical significance, the incidence of SARS-CoV-2 infection in mask wearers in a setting where social distancing and other public health measures were in effect, mask recommendations were not among those measures, and community use of masks was uncommon. Yet, the findings were inconclusive and cannot definitively exclude a 46% reduction to a 23% increase in infection of mask wearers in such a setting. It is important to emphasize that this trial did not address the effects of masks as source control or as protection in settings where social distancing and other public health measures are not in effect.

Reduction in release of virus from infected persons into the environment may be the mechanism for mitigation of transmission in communities where mask use is common or mandated, as noted in observational studies. Thus, these findings do not provide data on the effectiveness of widespread mask wearing in the community in reducing SARS-CoV-2 infections. They do, however, offer evidence about the degree of protection mask wearers can anticipate in a setting where others are not wearing masks and where other public health measures, including social distancing, are in effect. The findings also suggest that persons should not abandon other COVID-19 safety measures regardless of the use of masks. While we await additional data to inform mask recommendations, communities must balance the seriousness of COVID-19, uncertainty about the degree of source control and protective effect, and the absence of data suggesting serious adverse effects of masks (45).

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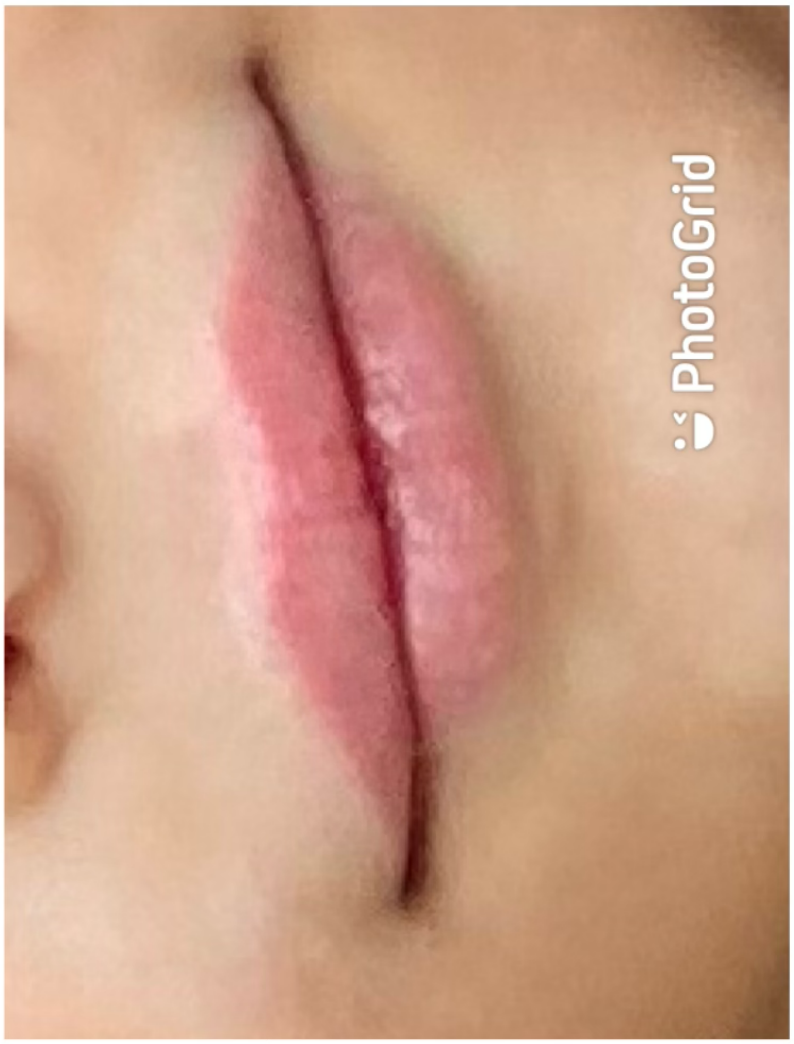
EXHIBIT L

EXHIBIT M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