

Declaration of Dr. Megan Srinivas

I, Megan Srinivas, declare as follows under penalty of perjury pursuant to 28 U.S.C. § 1746:

Background

1. I am currently an infectious diseases physician, clinical instructor, and fifth-year translational health policy research fellow at the University of North Carolina School of Medicine in Chapel Hill, North Carolina. Additionally, I currently serve as the infectious disease consultant for Broadlawns Medical Center in Des Moines, Iowa.
2. I am licensed to practice medicine in Iowa and North Carolina. I hold degrees from Harvard University (A.B. cum laude, Human Evolutionary Biology, 2009), Carver College of Medicine at the University of Iowa (MD, 2014); and Harvard University's School of Public Health (MPH, Global Health & Health Policy, 2014). I completed my residency in Internal Medicine at Johns Hopkins School of Medicine (2017) and my fellowship in Infectious Disease at the University of North Carolina (2019). I also hold two board certifications with the American Board of Internal Medicine in 1) Internal Medicine and 2) Infectious Disease.
3. I worked for 2.5 years at the Fort Dodge Community Health Center as its only infectious diseases and internal medicine physician (January 2018-July 2020). I also have been providing telehealth Hepatitis C care to rural Iowans through Iowa's Project ECHO since March 2019.
4. I have extensive work and research experience in the areas of infectious disease and public health and have served on numerous state and national boards, committees, and panels. Most relevant to the this case, I currently sit on the Infectious Disease Society of America (IDSA) Public Health Advisory Board, which represents all infectious disease providers in the nation. I am also a national delegate to the American Medical Association (AMA), which represents all physicians in the United States. I sit on the AMA's 12-person national Council on Medical

Services and am one of the leaders of the organization's Mask Up COVID Campaign. Additionally, I sit on the Iowa Board of Directors for the National Alliance on Mental Illness (NAMI) and delivered a statewide talk for NAMI in May 2020 on the impact of the novel coronavirus SARS-CoV-2 (hereinafter, "COVID-19") on mental health.

5. In March 2020, I co-founded the COVID-19 Health Animation Project (CHAP), to help address the racialized disparities in COVID-19 mortality and morbidity in the US. CHAP creates culturally-informed health messaging videos in various languages to deliver COVID-19 public health education to marginalized communities. I recently co-lead a CHAP team that collaborated with child psychologists and mental health professionals to focus on educating caregivers on the anxiety/stress facing children during the COVID-19 pandemic and how these issues can be effectively addressed. CHAP received a grant to pursue this project from the Atlantic Institute based at the Rhodes Trust in the University of Oxford and we have been asked by UNICEF to translate CHAP's mental health videos into Spanish so UNICEF has the opportunity to distribute both the English and Spanish version in the Americas.
6. I have given presentations on and authored or co-authored numerous medical and scientific publications and policy papers on infectious diseases and public health, as well as specifically on COVID-19 and its effects on rural areas and communities at-large.
7. My detailed curriculum vitae is attached as Exhibit A.
8. If called as a witness, I could and would testify competently to the matters set forth below.
9. I am familiar with the provision of Iowa Law recently passed that is known as HF 847 or the "Mask Mandate Ban." In my expert opinion, this provision will hurt the children of this state and their families by denying schools the ability to fashion policies for their districts that attend to the health needs of their students. If students face the prospect of going to school in areas of

substantial or high risk of COVID-19 transmission, with no requirements of masks, they are forced either to attend school at risk to their health and that of their families or to stay out of school, at risk to their well-being. I am especially concerned for those students with disabilities that are at an increased risk for complications from COVID-19.

10. I am not being compensated for my time reviewing materials and preparing this report.

Increased COVID-19 Transmission and Prevalence of the Delta Variant in Iowa

11. Vaccination rates across Iowa remain low, with only 52% of the population fully vaccinated.¹

12. The rate is even lower among children; as of August 25, only 30% of those twelve to fifteen are vaccinated, and 37% of sixteen to seventeen year-olds.²

13. Iowa is seeing the most hospitalizations since January 2021.³

14. More than half of the new cases, 56%, are people younger than 40, and 17% are younger than seventeen. Those age groups also have the lowest vaccination rates.⁴ Data released August 31 shows 22% of new cases in Iowa last week, after one week of school for many, are in school-age children.⁵

15. Each infected individual will, on average, infect six to seven others.⁶ There is a median latency to a detectable viral load of four days with the Delta variant rather than six days with the variant

¹ See *How Vaccinations Are Going in Your County and State*, N.Y. Times (Sept. 1, 2021 update), <https://www.nytimes.com/interactive/2020/us/covid-19-vaccine-doses.html> (last visited Sept. 2, 2021).

² Nick Coltrain, *Iowa COVID hospitalizations highest since January, 25% increase since last week to nearly 500*, Des Moines Reg. (Aug. 26, 2021), <https://www.desmoinesregister.com/story/news/health/2021/08/26/iowa-covid-19-hospitalization-rate-positive-cases-surges-delta-variant/5541193001/> (last visited Sept. 2, 2021).

³ *Id.*

⁴ *Id.*

⁵ Tim Webber, *Children make up nearly a quarter of new COVID-19 cases in Iowa*, Des Moines Reg. (Sept. 1, 2021), <https://www.desmoinesregister.com/story/news/health/2021/09/01/covid-19-iowa-testing-data-shows-kids-make-up-22-percent-cases/8167419002/>.

⁶ Michaelen Doucleff, *The Delta Variant Isn't as Contagious as Chicken Pox. But It's Still Highly Contagious*, NPR (Aug. 11, 2021), <https://www.npr.org/sections/goatsandsoda/2021/08/11/1026190062/covid-delta-variant-transmissioncdc-chickenpox> (last visited Sept. 2, 2021).

originally dominant in the US.⁷ This suggests very rapid dissemination and hyperlocal outbreaks.⁸

16. As of August 30, the data on rolling average hospitalizations shows approximately 633 total hospitalized with confirmed or suspected COVID-19 diagnosis, and this number remains on an upward trajectory.⁹
17. The COVID-19 Delta variant is estimated to account for 99.7% of COVID-19 infections in HHS Region 7, which includes Iowa, as of August 15.¹⁰ This is relevant to the overall COVID-19 transmission landscape given that the Centers for Disease Control and Prevention (CDC) estimates that the Delta variant is at least twice as transmissible as previous variants and that it could likely lead to more severe illness.¹¹

The Spread of COVID-19 in Children

18. The Iowa Department of Public Health (hereinafter “IDPH”) and IDPH medical director, Dr. Pedati, have tried to downplay the risk of COVID-19 transmission to children, stating that a paucity of early data equated to no transmission. However, now that we are seeing the emergence of significant data about children and COVID-19, there are some inherent truths that cannot be ignored: 1) children can contract COVID-19; 2) although the limited data demonstrate that children are less likely to die from COVID-19, they can still suffer long-term

⁷ Baisheng Li et al., *Viral infection and transmission in a large well-traced outbreak caused by the Delta SARS-CoV-2 variant*, medRxiv (July 12, 2021), <https://www.medrxiv.org/content/10.1101/2021.07.07.21260122v1> (last visited Sept. 2, 2021).

⁸ Kathy Katella, *5 Things to Know About the Delta Variant*, Yale Medicine (Aug. 26, 2021), <https://www.yalemedicine.org/news/5-things-to-know-delta-variant-covid> (last visited Sept. 2, 2021).

⁹ *Iowa Hospitals and COVID-19*, Iowa COVID-19 Tracker, <https://iowacovid19tracker.org/hospitals/> (last visited Sept. 2, 2021).

¹⁰ *COVID Data Tracker: Variant Proportions*, Ctrs. for Disease Control & Prevention (Aug. 28, 2021 update), <https://covid.cdc.gov/covid-data-tracker/#variant-proportions> (last visited Sept. 2, 2021).

¹¹ *Delta Variant: What We Know About the Science*, Ctrs. for Disease Control & Prevention (May 7, 2021 update), <https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html>.

and even permanent damage from infection; and 3) children transmit the infection to other children and adults.

19. Children of all ages are fully capable of contracting COVID-19. Per a recent report by the American Academy of Pediatrics (hereinafter, “AAP”), as of August 26, 2021, more than 4.8 million children have been diagnosed with COVID-19, representing 14.8% of all cases in the US.¹² Between August 19-26, 2021, 203,962 children were diagnosed with COVID-19, representing 22.4% of all new cases.¹³ And this is prior to school starting in most places, which will hasten the spread in this vulnerable age group.

20. A Centers for Disease Control and Prevention (hereinafter, “CDC”) case study analyzed the infection attack rate in a weeklong sleep-away camp during June 2020 in Georgia.¹⁴ The CDC found that of the 597 people attending the camp, 260 contracted COVID-19.¹⁵ The highest rate of infection among the campers was amongst the youngest children between six to ten years of age (51% attack rate in this group as compared to 33% in campers of ages eighteen to twenty one).¹⁶ These findings demonstrate that transmission among children is happening at significantly high rates. This may be behaviorally-based, which is a critical factor in the spread of COVID-19.

21. Children infected with COVID-19 are fully capable of transmitting the virus to others. A study published in the Journal of the American Medical Association (hereinafter, “JAMA”) on July 30, 2020, studied the contagiousness of children by estimating the amount of nasopharyngeal

¹² *Children and COVID-19: State Data Report: Version: 8/26/21*, Am. Acad. Pediatrics (Aug. 26, 2021 update), <https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/children-and-covid-19-state-level-data-report/> (last visited Sept. 2, 2021).

¹³ *Id.*

¹⁴ Christine M. Szablewski et al., *SARS-CoV-2 Transmission and Infection Among Attendees of an Overnight Camp — Georgia, June 2020*, Morbidity & Mortality Weekly Rep. (Aug. 7, 2020), <https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6931e1-H.pdf>.

¹⁵ *Id.*

¹⁶ *Id.*

viral shedding occurring at various age groups.¹⁷ They found that children younger than five years of age with mild to moderate symptoms of COVID-19 carry higher amounts of SARS-CoV-2 viral material in the nasopharynx than adults, suggesting that they may be more contagious and, thus, more effective at transmitting the virus than adults.¹⁸ Children between the ages of five and seventeen years appeared to have a similar amount of viral material as adults (here classified as eighteen years of age or older).¹⁹

22. Long COVID (post-acute sequelae of COVID-19, or “PASC”) can manifest as chronically disabling fatigue, headache, difficulty concentrating, insomnia and other multisystemic symptoms following even mild COVID infection (image below illustrates potential manifestations of long COVID).²⁰ Moreover, a *Nature* study published in April 2021 demonstrated that COVID-19 survivors had a 60% increased risk of death in the six months following illness than the general population.²¹ Hospitalized survivors had a 50% increased risk of death in the six months following recovery as compared to influenza survivors.

*Figure 1: Long-Lasting COVID-19 Impacts*²²

¹⁷ Taylor Heald-Sargent, William J. Muller, & Xiaotian Zheng, *Age-Related Differences in Nasopharyngeal Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Levels in Patients With Mild to Moderate Coronavirus Disease 2019 (COVID-19)*, *JAMA Pediatrics* (July 30, 2020), <https://jamanetwork.com/journals/jamapediatrics/fullarticle/2768952> (last visited Sept. 2, 2021).

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ Julia Evangelou Strait, *Among COVID-19 survivors, an increased risk of death, serious illness*, Wash. Univ. in St. Louis (Apr. 22, 2021), <https://source.wustl.edu/2021/04/among-covid-19-survivors-an-increased-risk-of-death-serious-illness/> (last visited Sept. 2, 2021).

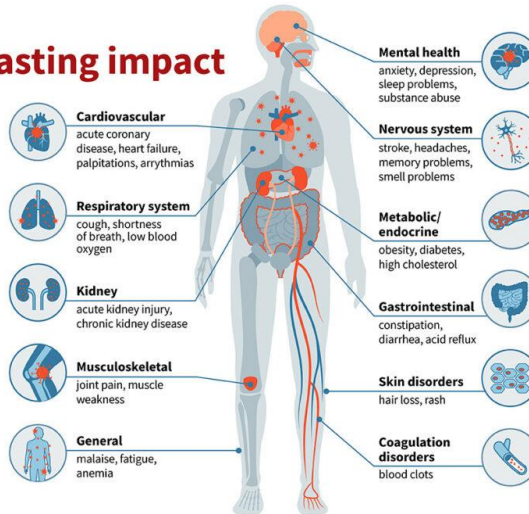
²¹ Ziyad Al-Aly, Yan Xie & Benjamin Bowe, *High-dimensional characterization of post-acute sequelae of COVID-19*, *Nature* (Apr. 22, 2021), <https://www.nature.com/articles/s41586-021-03553-9> (last visited Sept. 2, 2021).

²² Strait, *supra* note 21.

COVID-19: Lasting impact

Even those survivors with mild initial cases can have wide-ranging health issues for six months or more.

WashU researchers link many diseases with COVID-19, signaling long-term complications for patients and a massive health burden for years to come.



23. In the meantime, masks matter. Converging experimental, epidemiological, and modeling evidence consistent with the efficacy of masks in mitigating COVID transmission²³ stand diametrically opposed to the ban on mask mandates at a time when we desperately need to ensure compliance with masking, social distancing, and vaccinations.

24. *The Washington Post* adapted the graphic below from a CDC-funded study demonstrating the impact of different mitigation strategies on spread of COVID within schools.²⁴ Elementary schools where students are still ineligible for vaccination are the most vulnerable. And in such schools, when universal masking and regular testing/randomized screenings are not being implemented (as is occurring in Iowa), 91% of students will likely be infected within the first 3 months. Even with schools where immunity via vaccines is more prevalent (middle and high schools), there is still a significant risk when mitigation is not appropriately used. Ultimately,

²³ Howard et. al., *An evidence review of face masks against COVID-19*, 118 PNAS 1, 1-12 (2021); Cheng, et al., *Face masks effectively limit the probability of SARS-CoV-2 transmission*, 372 Science 1439, 1439-1443 (2021).

²⁴ Ariana Eunjung Cha, *A Calif. elementary school teacher took off her mask for a read-aloud. Within days, half her class was positive for delta.*, Wash. Post (Aug. 28, 2021), <https://www.washingtonpost.com/health/2021/08/28/delta-variant-unvaccinated-children-elementary-schools/>.

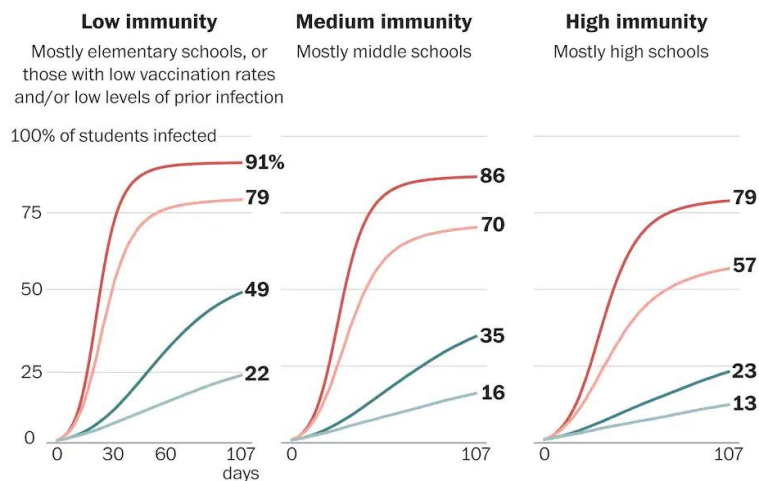
the study shows a harrowing prediction that 75% of all students (elementary through high school) will likely be infected within 3 months without appropriate mitigation.²⁵

Figure 2: Student Susceptibility²⁶

Share of susceptible students predicted to be infected with the coronavirus

In a mathematical simulation, the predicted share of infections among unvaccinated students not previously infected, who are in schools with:

■ No masks, no testing ■ No masks, but testing occurs ■ Universal masks, no testing ■ Universal masks and testing



Source: COVSIM Research Group

KATE RABINOWITZ/THE WASHINGTON POST

25. Children are not the only ones at risk of infection with in-person learning. The educators, custodians, bus drivers, and all school staff are at significant risk of illness. Moreover, while children may be asymptomatic or pauci-symptomatic from infection, they can still transmit to others, including bringing the virus home to vulnerable caregivers and family members. From

²⁵ These numbers, highlighted by the Washington Post, were derived from an academic study. See Yiwei Zhang et al., *COVID-19 Projections for K12 Schools in Fall 2021: Significant Transmission without Interventions*, medRxiv (Aug. 11, 2021), <https://www.medrxiv.org/content/10.1101/2021.08.10.21261726v1.full>.

²⁶ Cha, *supra* note 26.

March 1, 2020 to April 30, 2021 (prior to the onset of the more virulent delta variant), more than 1.5 million children lost a caregiver to COVID-19 globally.²⁷

26. Although many schools in Iowa have only been in session for one week, COVID-19 activity in schools is already rampant (47 different schools documented as of August 31, 2021), numbers that will likely significantly worsen given inadequate notification of exposures and the lack of quarantine for those exposed.²⁸

Conditions That Can Put Children at Greater Risk of Severe Illness from COVID-19

27. The CDC has suggested higher risk for COVID complications in children who are medically complex, have genetic, neurologic, or metabolic conditions, congenital heart disease or, like in adults, chronic obesity, diabetes, asthma or chronic lung disease, sickle cell disease, and immunosuppression.²⁹ I have reviewed the declarations of the plaintiffs in this case including their ages and diagnoses. All qualify as higher risk per the CDC. Any child who is medically complex (i.e. M.P., S.P., S.V., P.D., E.M.S, V.M.H., N.R.), has Down Syndrome (i.e. A.S., E.C.), has moderate to severe asthma (i.e. C.B, K.G., J.J.B.), as well as any child with chronic heart or lung disease (i.e. M.P., H.J.F.R., V.M.H.) is vulnerable to poorer clinical outcomes with COVID.

28. The American Academy of Pediatrics strongly recommends in-person learning for the mental, emotional, and physical health of children, but emphasizes the critical importance of universal

²⁷ Susan D. Hills et al., *Global minimum estimates of children affected by COVID-19-associated orphanhood and deaths of caregivers: a modelling study*, Lancet (July 20, 2021), [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)01253-8/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)01253-8/fulltext) (last visited Sept. 2, 2021).

²⁸ *COVID-19 in Our Schools*, Iowa COVID-19 Tracker, <https://iowacovid19tracker.org/covid-19-in-our-schools/> (last visited Sept. 2, 2021).

²⁹ *People with Certain Medical Conditions*, Ctrs. for Disease Control & Prevention (Aug. 20, 2021 update), <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html> (last visited Sept. 2, 2021).

masking (in children > two years) regardless of vaccination status.³⁰ These are children who have need for in-person instruction. *And* in many school districts, even nominally equivalent educational services are not available through remote learning. The failure to allow local entities to implement universal masking policies will have disproportionate impact on these students.

Public Health Guidance on Masking to Reduce COVID-19 Transmission in Schools

29. Ways to mitigate the spread of COVID-19 in schools includes i) universal masking; ii) spacing of three feet with masking or at least 6 feet without masking; iii) testing with isolation and quarantine for positive and exposed individuals, respectively; and iv) maximizing proper ventilation of enclosed spaces.
30. The Delta variant is highly transmissible, which makes masking even more important. In a recent study it was found that while vaccines are effective against the Delta variant, infection risk remains elevated among unvaccinated persons in schools. In addition to vaccination, strict adherence to multiple nonpharmaceutical prevention strategies, including masking, are important to ensure safe school instruction.
31. From May 23 to June 12, 2021, 26 laboratory-confirmed COVID-19 cases occurred among Marin County, California, elementary school students and their contacts following exposure to an unvaccinated infected teacher. There was a 50% infection rate in an elementary classroom where all were masked *except* for the infected teacher who removed her mask for only a short period of time each day.³¹ This study demonstrates that the mask is most valuable in preventing

³⁰ *American Academy of Pediatrics Updates Recommendations for Opening Schools in Fall 2021*, Am. Acad. Pediatrics (July 19, 2021), <https://www.aap.org/en/news-room/news-releases/aap/2021/american-academy-of-pediatrics-updates-recommendations-for-opening-schools-in-fall-2021/>.

³¹ Tracy Lam-Hine et al., *Outbreak Associated with SARS-CoV-2 B.1.617.2 (Delta) Variant in an Elementary School — Marin County, California, May–June 2021*, Morbidity & Mortality Weekly Rep. (Sept. 3, 2021), <https://www.cdc.gov/mmwr/volumes/70/wr/pdfs/mm7035e2-H.pdf>.

spread when the infected individual is wearing a mask. It also emphasizes the importance of universal masking in those who are medically able in order to prevent spread to vulnerable students and staff. Additionally, this case study shows that rapid spread within a school and to pediatric populations is possible, especially with the increased infectiousness of the delta variant.

32. The American Medical Association, American Academy of Pediatrics, Infectious Disease Society of America, American Academy of Family Physicians, and CDC all strongly endorse return to in-person learning *only* in the setting of appropriate public health mitigation, including universal masking.³² The CDC specifically states that there are no known adverse effects from mask use.³³

The Importance of Allowing Schools to Set Their Own Mask Policies

33. With significant inter-county differences in cases, test positivity, vaccinations, and health resources, local authorities, including school districts, should be able to decide, based on the dynamics of this pandemic, how to move on implementing mask mandates and other public health policies to help prevent, contain, and mitigate this disease. While it is generally true that the entire state of Iowa is facing a COVID surge, to illustrate the variation in impact over a single snapshot in time, observe that in Polk County, there are currently 1,427 cases per 100,000, in Linn County, 699 per 100,000 cases, and in Black Hawk County, 353 per 100,000 cases.³⁴

³² See, e.g., *American Academy of Pediatrics Updates Recommendations for Opening Schools in Fall 2021*, Am. Acad. Pediatrics (July 19, 2021), <https://www.aap.org/en/news-room/news-releases/aap/2021/american-academy-of-pediatrics-updates-recommendations-for-opening-schools-in-fall-2021/>.

³³ *Use of Cloth Masks to Control the Spread of SARS-CoV-2*, Ctrs. for Disease Control & Prevention (May 7, 2021), <https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/masking-science-sars-cov2.html>.

³⁴ *COVID-19 Integrated County View*, Ctrs. for Disease Control & Prevention (Sept. 2, 2021 update), <https://covid.cdc.gov/covid-data-tracker/#county-view> (last visited Sept. 2, 2021).

34. Local districts and the boards which serve them need to be able to take action to protect their students and staff, including implementation of mask requirements.

I swear under the penalty of perjury under the laws of the United States that the foregoing is true and correct to the best of my knowledge.

Dated this __3rd_ day of September 2021, at __, Iowa.

Megan L. Srinivas

Megan L. Srinivas, MD MPH

EDUCATION/TRAINING

UNIVERSITY OF NORTH CAROLINA SCHOOL OF MEDICINE – Infectious diseases physician/clinical instructor and NC TraCS translational health policy research fellow. Completed clinical ID fellowship June 2019. Recipient of NIH T32 grant for STIs/HIV 2019-2020 and NCATS Translational TL1 grant for 2020-2021. 2020 Atlantic Fellow for Health Equity. 2018 New Leaders Council Fellow. Recipient of two 2020 Atlantic Philanthropies Solidary Grant. Asian Pacific American Institute for Congressional Studies (APAICS) 2018 National Leadership Academy. Recipient of Asian and Latino Coalition 2019 Leadership Award. 2020 Girl Scouts of Iowa Inspiring Women of the Year Award. InStyle Magazine’s “Bad Ass Women” 2020 Award (featured in August 2020 issue). 2021 Emerge Iowa DAWN Activist Award. 2021 Business Record 40 Under 40 in Iowa Award. 2021 National Minority Quality Forum 40 under 40 Health Leaders in the United States. June 2017 – ongoing.

JOHNS HOPKINS SCHOOL OF MEDICINE – Johns Hopkins Bayview Medical Center Internal Medicine Residency Program. American College of Physicians 2015 National Poster Winner. Tel Aviv University Advanced Epidemiology 2015 Summer Fellow. President of Maryland American Medical Association (AMA) Resident/Fellow Section. National resident/fellow delegate to the AMA. Paul Lietman Global Health Fellowship 2016 recipient. Caucus Fellow for Hillary Clinton 2016 campaign. National Delegate to 2016 Democratic National Convention. June 2014 – June 2017.

HARVARD UNIVERSITY SCHOOL OF PUBLIC HEALTH – Class of 2014 MPH global health. Student government MPH rep. Student rep to Committee on Admissions and Degrees. David Rockefeller Center for Latin American Studies research grant winner.

UNIVERSITY OF IOWA COLLEGE OF MEDICINE – Class of 2014 MD. Teaching Distinction track. 2010 Minority Health and Disparities International Research Training Fellowship winner. Barry Goldman Fellowship recipient.

HARVARD UNIVERSITY – Class of 2009 AB *cum laude* Human Evolutionary Bio. 3 minors: Global Health Policy, Spanish, Latin American Studies. Thomas T. Hoopes Prize for Excellence in Undergraduate Work (top undergraduate student award at Harvard), David Rockefeller Center for Latin American Studies Grant, David Roux Fund award, Goelet Fund award, Alex G. Booth award, Harvard Intl Innovation Grant, Americorps Student Leader in Service scholarship, Justine Magazine Women’s 2006 Role Model award.

FORT DODGE SENIOR HIGH – 2005 Valedictorian. USA Today 1st All-Academic Team, Coca-Cola National Scholar, National Toyota Community Scholar, National Merit Scholar, World Food Prize Foundation John Chrystal International Intern Award, Sports Illustrated Magazine’s All-American Teen Award, President Hoover Uncommon Student Award, National Junior Science and Humanities Symposium Winner, Intel International Science and Engineering Fair Prize Winner, 4-year Varsity Letter-Winner and Captain of tennis team, 3-year National Congressional Debate Finalist and Captain of Speech and Debate team.

BOARD CERTIFICATION/MEDICAL LICENSURE

AMERICAN BOARD OF INTERNAL MEDICINE INFECTIOUS DISEASE BOARD CERTIFICATION - December 2019

AMERICAN BOARD OF INTERNAL MEDICINE BOARD CERTIFICATION - October 2017

NATIONAL BOARD OF MEDICAL EXAMINERS - May 2016

State Licensures: Iowa, North Carolina

WORK AND RESEARCH EXPERIENCE

AMERICAN MEDICAL ASSOCIATION (AMA)/CENTER FOR DISEASE CONTROL AND PREVENTION (CDC) Remote
Project First Line Podcast Host. Podcast focused on the intersection of infection prevention and control and health equity titled, “Stories of Care with Dr. Srinivas.” Launching in fall 2021. June 2021 – ongoing.

COVID HEALTH ANIMATION PROJECT (CHAP) Virtual
Co-founder and health expert for collaborative effort that produces culturally-informed health messaging on COVID to help address racialized disparities. Designed and created videos to improve COVID Vaccine clinical trial recruitment for Novavax trials at UNC. Funded by two separate 2020 Atlantic Philanthropies Solidarity Grants. (<https://www.cfrontiers.co/chap>). March 2020 – ongoing.

UNIVERSITY OF NORTH CAROLINA INSTITUTE OF GLOBAL HEALTH AND INFECTIOUS DISEASE Chapel Hill, NC, USA
Infectious diseases physician/clinical instructor. NC prison system HIV & general infectious disease telehealth provider. Inpatient infectious disease physician. Translational health policy researcher. July 2019 – ongoing

WORLD HEALTH ORGANIZATION SEXUAL & REPRODUCTIVE HEALTH RESEARCH Virtual & Nairobi, Kenya
Co-organizer/researcher. Co-led a WHO project using social innovation/crowdsourcing to create a harmonized global instrument for sexual health research in HICs and LMICs. Aug 2019 – ongoing.

PROJECT ECHO – IOWA

Des Moines, IA, USA

Infectious Disease Physician Expert. Project ECHO uses telehealth to extend clinical reach to underserved & rural communities. Working to increase diagnosis & linkage to care for Hepatitis C in rural areas where specialist care is not available. March 2019-ongoing.

MEDICAID/TITLE X STI RESEARCH

Chapel Hill, NC, USA

Principal Investigator. Investigating reproductive health restrictions in Medicaid and Title X funding and their impact on creation of health care deserts and STI rates. Received 2019-2021 NIH T32 grant and 2020-2021 NIH TL1 grant to fund research. December 2018 – ongoing.

FORT DODGE COMMUNITY HEALTH CENTER

Fort Dodge, IA, USA

Infectious Disease and Internal Medicine Physician. Employed by rural federally-qualified health center as both the only infectious diseases and internal medicine physician. January 2018-July 2020.

INDIAN MINISTRY OF HEALTH HIV/AIDS RESEARCH

Bangalore, India

Researcher and PI. Funded by Barry Goldman Fellowship. Mapped HIV incidence in the state of Karnataka over a 6-year period. January 2014 – June 2014.

BRAZILIAN MINISTRY OF HEALTH HIV/AIDS RESEARCH

Fortaleza, Brazil

Research Collaborator. Collaboration between Harvard research team and Brazilian government officials. Funded by Harvard's David Rockefeller Center for Latin American Studies grant. Worked with govt officials and NGOs to assess level of stigma and discrimination against HIV/AIDS in healthcare workers and its effects on HIV testing. Jan 2013 – May 2013.

HONDURAS PARASITOLOGY RESEARCH

Tegucigalpa, Honduras and Iowa City, IA, USA

Researcher. Member of National Dengue Taskforce during summer 2010 outbreak. Analyzed clinical presentation of leishmaniasis in relation to species. Health educator training on dengue/malaria prevention, diagnosis, treatment. May – Aug 2010.

MALARIA POLICY RESEARCH

Amazon Basin, Peru and Cambridge, MA, USA

Principal Investigator. Harvard's 2009 Thomas Temple Hoopes Prize winner. Analyzed factors contributing to the evolution of drug resistance in malaria parasites in Peru. Crafted health policy recommendations adopted by Peruvian govt. May 2007 – May 2009.

INDIAN INSTITUTE OF SCIENCE

Bangalore, India

Research Fellow. Mathematical modeling to generate estimate of effective HIV population in an individual. June - Aug 2007

WEIZMANN INSTITUTE OF SCIENCE

Rehovot, Israel

Researcher. Investigated conformational changes in glycoproteins-41 and -120 & their role in HIV virulence. June - July 2005.

NATIONAL ANIMAL DISEASE CENTER, US DEPT. OF AGRICULTURE

Ames, IA, USA

Research Fellow. Developed novel diagnostic approach to detect the transmissible spongiform encephalopathic prion (causal agent of Mad Cow Disease and its counterparts in other species) content in paraffin-embedded tissues. June 2004-June 2005.

INTERNATIONAL CENTER OF INSECT PHYSIOLOGY AND ECOLOGY

Mbita, Kenya

Research Intern. World Food Prize Foundation intern; John Chrystal Award winner for outstanding work on hunger issues. Analyzed the role of education on house-hold food security in rural Africa. June-August 2003.

LEADERSHIP AND PUBLIC SERVICE**IOWA'S BIDEN COVID RESPONSE COUNCIL**

August-November 2020

Chair. Worked with President Biden's Iowa campaign team to chair this group on their COVID response. Traveled Iowa representing the group and discussing the issues surrounding COVID and the policies needed to address the pandemic.

COVID PUBLIC HEALTH EDUCATION

March 2020-ongoing

Educating the public on safety measures & latest research during the pandemic. Using social media (Twitter, Instagram, and Facebook) and traditional media (television, radio, and newspaper). Invited speaker for local, national, and international panels and media.

ATLANTIC FELLOW FOR HEALTH EQUITY

January 2020-ongoing

Selected as part of 2020 cohort for the Atlantic Institute's health equity fellowship based at George Washington University in the US. Program selects 20 fellows internationally each year to learn about leadership in the health equity sphere and collaborate on projects addressing disparities.

INFECTIOUS DISEASE SOCIETY OF AMERICA's (IDSA) PUBLIC HEALTH ADVISORY BOARD

October 2019-ongoing

IDSA represents all infectious disease providers in the nation. Selected to sit on the IDSA's public health board, which makes public health policy decisions for the organization and advocates directly with policymakers.

IOWA SUPREME COURT'S ACCESS TO JUSTICE COMMISSION

September 2019-ongoing

Appointed to the commission by the Iowa Supreme Court. Addressing the social determinants of justice and improving access to the legal system for vulnerable populations. Serving on the Rural Access Committee and on the Executive Board.

AMERICAN MEDICAL ASSOCIATION September 2009 – ongoing
RFS Councilor to AMA Council on Medical Service & National Delegate to AMA House of Delegates
 Elected by residents/fellow membership as a national delegate, helping craft AMA policies on US healthcare. Elected as the resident/fellow member on the 12-person national Council on Medical Service, which focuses on the social & economic policies impacting medicine.

AMERICAN COLLEGE OF PHYSICIANS December 2014 – ongoing
 Former resident physician rep on Maryland Health Policy Committee and current physician member.

NATIONAL ALLIANCE ON MENTAL ILLNESS (NAMI) IOWA BOARD OF DIRECTORS February 2019-ongoing
 Board member of Iowa branch of NAMI, a non-profit that centers on mental illness. We work to fight stigma about mental health, educate the public on illness, and advocate for resources/access to treatment for patients and families.

ASIAN AND LATINO COALITION BOARD OF DIRECTORS January 2019- January 2020
 Board member of this Iowa organization focused on advocating for diversity and inclusion in the state.

2018 DEMOCRATIC NOMINEE FOR IOWA STATE HOUSE OF REPRESENTATIVES – DISTRICT 9 January-November 2018
 Received multiple state and national endorsements. One of the highest non-incumbent fundraisers in the state. Won democratic primary June 5, 2018. Lost general election by 384 votes.

2018 NEW LEADERS COUNCIL (NLC) FELLOWSHIP January -May 2018
 Selected as a fellow for the NLC, which focuses on creating a pipeline of progressive leaders for the future in both the political arena and in local communities. Undergoing trainings to develop these skills and connect with local, state, and national policy leaders.

2016 WORLD FOOD PRIZE SYMPOSIUM October 14, 2016
 Featured speaker at the 2016 Laureate Ceremony alongside former President of Malawi Joyce Banda, President Ameen Gurib-Fakim of Mauritius, US Secretary of Agriculture Thomas Vilsack, and Iowa Governor Terry Bransted.

2016 DEMOCRATIC NATIONAL CONVENTION February – July 2016
 Elected by the constituents of Iowa's 4th Congressional District as National Delegate to the 2016 DNC in Philadelphia, PA in July 2016.

2016 IOWA CAUCUS FELLOW FOR SECRETARY HILLARY CLINTON January – February 2016
 Grassroots organizer in Iowa. Organized events w/ Sec Clinton, President Clinton, Rep Giffords, Cecile Richards, & other celebrity supporters.

HARVARD 5th REUNION, CLASS OF 2009 August 2013-June 2014
Co-Chair Harvard University, Boston, MA, USA
 Selected by committee of peers to co-organize & host 5th reunion. Highest 5th year reunion attendance & fundraising in Harvard's history.

HARVARD SCHOOL OF PUBLIC HEALTH STUDENT GOVERNMENT September 2012 – June 2013
MPH Co-Representative, Student Representative to the Admissions Committee Harvard University, Boston, MA, USA
 Elected by peers. Worked on curriculum & admissions criteria reform, student advocacy issues. Member of admissions deliberations.

UNIVERSITY OF IOWA COLLEGE OF MEDICINE STUDENT GOVERNMENT May 2010-May 2012
Executive Council for Grad/Professional Students; Activities Committee Chair; Diversity Committee Iowa City, IA, USA
 Elected by peers. Helped to address diversity and cultural competency issues via hosting events and helping with curriculum changes.

AMERICORPS STUDENT LEADERS IN SERVICE October 2007-June 2008
Student Leader Harvard University, Cambridge, MA, USA
 Underwent special trainings with select group of other Harvard campus leaders in public service. Public service scholarship recipient.

PEER HEALTH EXCHANGE Boston, MA, USA
Co-Coordinator and Co-Founder on the Harvard Campus; Health Educator March 2006-June 2009
 Co-founded organization's branch at Harvard and Boston. Trained 50 college students to teach comprehensive health curriculum in socioeconomically disadvantaged high schools in Boston. Reached >600 students annually between 2006-2009.

HARVARD MODEL CONGRESS September 2005-June 2009
Executive Board Member Boston, MA and San Francisco, CA, USA; Athens, Greece; Bangkok, Thailand
 Organized and presided over committees at four annual conferences for high school students from around the world. Taught students about domestic and international political and judicial processes via government simulations and direct mentoring in high schools.

HARVARD UNDERGRADUATE COUNCIL September 2005 – September 2006
Student Representative Harvard University, Cambridge, MA, USA
 Elected by peers to the Harvard student government. Worked jointly with Dean's office for curricular reform and student advocacy.

Selected and appointed by former Governor Tom Vilsack as first student member on the board. Re-appointed for second term. Responsible for reflecting student opinion and making decisions regarding the education laws and policies throughout the state.

SELECTED PUBLICATIONS/POLICY PAPERS (*denotes first authors)

1. *Srinivas ML, Shim H, Jones DL, et al (2021). "The importance of data accuracy and transparency for policy-making during a public health crisis: a case study in the state of Iowa." Accepted to IDWeek, October 2021, with publication in OFID.
2. *Srinivas ML, Yang EJ, Lin FC, Tang W, Tucker JD (2021). "Impact of Defunding Family Planning Health Centers on Gonorrhea and Chlamydia Cases in Iowa: A Longitudinal Spatiotemporal Analysis of 2000 to 2018." Oral Presentation at IUSTI's STI & HIV World Congress 2021, Virtual and Berlin, Germany, Jul 2021.
3. Gonsalves L, Hunter EC, Tucker JD, Srinivas ML, Giatu E, Mercer CH, Bajos N, Collins D (2021). "Cognitive Testing of a Survey Instrument to Assess Sexual Practices, Behaviours, and Health Outcomes: a Multi-country Study Protocol." *Reproductive Health*. In press.
4. *Grijalva R, *Makhoul MD, *Srinivas, ML, *Lopez G. "An equitable distribution of COVID-19 vaccine must include noncitizens." *The Hill*, 26 Jan 2021. <https://thehill.com/blogs/congress-blog/healthcare/535901-an-equitable-distribution-of-covid-19-vaccine-must-include>
5. *Srinivas ML, *Ritchwood TD et al. (2021). "Social innovation in sexual health: a scoping review to end the HIV epidemic." *Sexual Health*. 2021 Mar; 18(1):5-12. doi: 10.1071/SH20030
6. *Kpokiri EE, *Wu D, *Srinivas ML, et al. (2021). "Development of an international sexual and reproductive health survey instrument: results from a pilot WHO/HRP consultative Delphi process." *Sexually Transmitted Infections*. In press.
7. *Srinivas ML, Yang EJ, et al. (2020) "Impact of defunding family planning health centers on sexually transmitted infection rates." Presented at IDWeek, Oct. 2020, Philadelphia, PA, USA.
8. *Srinivas, Megan L. "We Don't Have the Data We Need to Reopen Iowa." *Des Moines Register*, 30 Apr. 2020, www.desmoinesregister.com/story/opinion/columnists/iowa-view/2020/04/30/infectious-disease-doctor-we-do-not-have-enough-data-reopen-iowa/3048415001/.
9. *Srinivas, Megan L. "Rural America Is Not Ready for COVID-19." *Des Moines Register*, 2020, www.desmoinesregister.com/story/opinion/columnists/2020/04/07/rural-america-not-ready-covid-19/2952724001/.
10. *Srinivas, ML et al.. (2020) "Social innovation in diagnostics: three case studies." *Infectious Diseases of Poverty*. 9(1):20. doi: 10.1186/s40249-020-0633-6.
11. *Lachiewicz AM and Srinivas, ML. (2019) "Varicella-zoster virus post-exposure management and prophylaxis: A review." *Preventive Medicine Reports*. doi: 10.1016/j.pmedr.2019.101016.
12. *DeFelice, DS, Srinivas, ML, Wobker, SE, and Parr, JB. (2018) "Going bone deep: osseous Rosai-Dorfman Disease in an adult with recurrent, culture-negative osteomyelitis." *Case Reports in Infectious Diseases*, vol 2018. doi: 10.1155/2018/6151738
13. "Gun Violence as a Public Health Crisis." (2016) – co-wrote and co-lead the effort to pass the resolution establishing the AMA policy on gun violence in June 2016.
14. *Srinivas, Megan L. (2015): "Mycophenolate-Induced Disseminated TB in a PPD-Negative Patient." American College of Physicians 2015 National Meeting Poster Competition, Boston, MA, USA. – 1st place winning poster in National Competition.
15. *Srinivas, Megan L. (2009): "Evolution and Malaria: A Battle for Survival" – Thomas T. Hoopes award-winning thesis on evolution of drug-resistance in malaria. Bound and available in the Harvard University library system.
16. *Kunkle, RA., Nicholson, EM, Lebepe-Mazur, S, Orcutt, DL, Srinivas, ML, et al., (2008): "Western-blot Detection of PrP^{Sc} in Archived Paraffin-Embedded Brainstem from Scrapie-affected Sheep." *Journal of Veterinary Diagnostics*. 20(4): pp. 522-526.
17. *Srinivas, Megan L., (2007): "Development and Standardization of a Novel Approach to Detect the Transmissible Spongiform Encephalopathic Prion Content in Paraffin-Embedded Tissues," *Proceedings of the 25th National Army Science Conference*.
18. *Bussey, M., *Klapper, J., and *Srinivas, M., (2005): "Isolation, Purification, and Identification of the Structure of the TrpST42 Peptide Chain of gp41 in HIV-1," *Sci Reports*, 37th Intl Summer Sci Inst, Weizmann Inst Science, Rehovot, Israel. pp B11:1–6.
19. *Srinivas M.L. (2003): "Analysis of the Influence of Education on Household Food Security in Rural Africa" – John Chrystal Award-winning thesis on research conducted while at the International Center of Insect Physiology and Ecology, Kenya. <http://www.worldfoodprize.org/Youthinstitute/03brinterns/papers/srinivas.pdf>