In the Supreme Court of the United States

NATIONAL FEDERATION OF INDEPENDENT BUSINESS, ET AL.,

Applicants,

V

Department of Labor, Occupational Safety and Health Administration, et al., $\underline{\hspace{1cm}} Respondents.$

OHIO, ET AL.,

Applicants,

V

DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, ET AL., Respondents.

ON APPLICATIONS FOR STAY OF ADMINISTRATIVE ACTION AND PETITIONS FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT

MOTION FOR LEAVE TO FILE AND BRIEF OF AMERICAN MEDICAL ASSOCIATION, AMERICAN COLLEGE OF PHYSICIANS, AMERICAN ACADEMY OF PEDIATRICS, AMERICAN COLLEGE OF CHEST PHYSICIANS, AMERICAN COLLEGE OF CORRECTIONAL PHYSICIANS, AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS, AMERICAN GERIATRICS SOCIETY, AMERICAN MEDICAL WOMEN'S ASSOCIATION, AMERICAN PSYCHIATRIC ASSOCIATION, AMERICAN SOCIETY FOR CLINICAL PATHOLOGY, AMERICAN SOCIETY OF ECHOCARDIOGRAPHY, AMERICAN SOCIETY OF HEMATOLOGY, AMERICAN THORACIC SOCIETY, ASSOCIATION OF ACADEMIC PHYSIATRISTS, AND AMERICAN LUNG ASSOCIATION AS AMICI CURIAE IN OPPOSITION TO APPLICATIONS FOR STAY

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The American Medical Association, American College of Physicians, American Academy of Family Physicians, American Academy of Pediatrics, American College of Chest Physicians, American College of Correctional Physicians, American College of Obstetricians and Gynecologists, American Geriatrics Society, American Medical Women's Association, American Psychiatric Association, American Society for Clinical Pathology, American Society of Echocardiography, American Society of Hematology, American Thoracic Society, Association of Academic Physiatrists, and American Lung Association respectfully move for leave to file the enclosed brief as amici curiae in opposition to Applicants' applications for stay of administrative action, including leave to file in 8½- by 11-inch format.

Amici include fifteen national medical societies and an organization representing patients and the public health. Amici have a strong interest in promoting public health and reducing the spread of COVID-19. The attached brief reflects Amici's extensive review of medical literature supporting the efficacy and safety of COVID-19 vaccines authorized or approved by the U.S. Food and Drug Administration. Accordingly, the proposed brief will assist the Court because it sets forth medical and scientific information demonstrating that a stay of OSHA's Emergency Temporary Standard requiring vaccination or testing among large employers would cause severe and irreparable harm to the public interest.

Courts have repeatedly granted leave for one or more of *Amici* to file briefs as amici curiae in cases related to federal vaccination policies. This includes the court of appeals below, which accepted an amicus curiae brief on behalf of the American Medical Association. See Order, In re MCP No. 165, OSHA Rule on COVID-19 Vaccination and Testing, 86 Fed. Reg. 61402, No. 21-7000 (6th Cir. Dec. 3, 2021), Dkt. No. 299 (granting motion of American Medical Association to file amicus curiae brief); see also Instanter Order, Indiana v. OSHA, No. 21-3066 (7th Cir. Nov. 18, 2021), Dkt. No. 22, (same); Court Order, BST Holdings v. OSHA, No. 21-60845 (5th Cir. Nov. 11, 2021) (same); Clerk Order, Missouri v. Biden, No. 21-3725 (8th Cir. Dec. 13, 2021) (granting motion of several Amici to file amicus curiae brief).

Counsel for *Amici* have consulted with the parties' counsel, with ten days' notice before this filing. Counsel for the Business Association Applicants do not oppose this motion. Counsel for the State Applicants consent to this motion. Counsel for Respondents take no position.

To the extent that leave is required, *Amici* respectfully move for leave to file the attached brief on 8½- by 11-inch paper, rather than in booklet form, given the expedited nature of the briefing. Should the Clerk's Office, the Circuit Justice, or the Court so require, *Amici* commit to re-filing expeditiously in booklet format. *See* S. Ct. Rule 21.2(c).

For the foregoing reasons, *Amici* respectfully move for leave to file the attached *amicus curiae* brief in opposition to Applicants' applications for stay of administrative action.

Dated: December 30, 2021

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INTEREST OF AMICI CURIAE

Amici are associations representing medical professionals and patients and the public health across disciplines. They accordingly have a strong interest in promoting public health and reducing the spread of COVID-19.¹

The American Medical Association is the largest professional association of physicians, residents, and medical students in the United States. Additionally, through state and specialty medical societies and other physician groups seated in its House of Delegates, substantially all physicians, residents, and medical students in the United States are represented in the AMA's policy-making process. The AMA was founded in 1847 to promote the art and science of medicine and the betterment of public health, and these remain its core purposes. AMA members practice in every medical specialty and in every state. The AMA joins this brief on its own behalf and as a representative of the Litigation Center of the American Medical Association and the State Medical Societies. The Litigation Center is a coalition among the AMA and the medical societies of each state and the District of Columbia. Its purpose is to represent the viewpoint of organized medicine in the courts.

The American College of Physicians is the largest medical specialty organization in the United States. Its membership includes 161,000 internal medicine physicians, related subspecialists, and medical students. Internists apply scientific knowledge and clinical expertise to the diagnosis, treatment, and compassionate care of adults

¹ This brief is filed with the written consent or non-opposition of Applicants; Respondents took no position on the filing of this brief. Pursuant to Supreme Court Rule 37.6, counsel for *Amici* authored this brief in whole; no party's counsel authored, in whole or in part, this brief; and no person or entity other than *Amici* and their counsel contributed monetarily to preparing or submitting this brief.

across the spectrum from health to complex illness. ACP and its physician members lead the profession in education, standard-setting, and the sharing of knowledge to advance the science and practice of internal medicine.

Founded in 1947, the American Academy of Family Physicians is one of the largest national medical organizations, representing 133,500 family physicians and medical students nationwide. AAFP seeks to improve the health of patients, families, and communities by advocating for the health of the public and by supporting its members in providing continuous comprehensive health care to all.

The American Academy of Pediatrics was founded in 1930 and is a national, notfor-profit professional organization dedicated to furthering the interests of child and
adolescent health. The AAP's membership includes over 67,000 primary care
pediatricians, pediatric medical subspecialists, and pediatric surgical specialists.

Over the past year-and-a-half, the AAP has devoted substantial resources to
researching the scientific literature regarding how to treat COVID-19 and reduce its
spread so that the AAP can provide up-to-date, evidence-based guidance for
pediatricians and public health officials.

The American College of Chest Physicians, known as CHEST, is comprised of more than 19,000 physicians, advance practice providers, respiratory therapists, and other front line health care professionals who provide patient care in pulmonary, critical care, and sleep medicine. CHEST serves as an important connection to clinical knowledge, research, and resources, including through its highly respected peer-reviewed journal, clinical practice guidelines, and consensus statements. CHEST is

interested in providing evidence-based guidance on respiratory diseaserelated public health issues and advocating for best practices in patient care.

The American College of Correctional Physicians, formerly known as The Society of Correctional Physicians, was founded in 1993. Its purpose is to support the interests of the providers who care for those incarcerated in correctional facilities of all types. This includes jails, juvenile facilities, and state and federal prisons. They have dedicated their medical careers to ensure those incarcerated receive the quality of medical, mental, and dental care mandated by the United States Constitution. ACCP members are united through the goal of improving public health by examining issues specific to the incarcerated and identifying solutions for medical professionals. ACCP meets those goals through education, advocacy, networking, and avenues of communication.

The American College of Obstetricians and Gynecologists is the nation's leading group of physicians providing health care for women. With more than 60,000 members—representing more than 90% of all board certified obstetricians-gynecologists in the United States—ACOG advocates for quality health care for women, maintains the highest standards of clinical practice and continuing education of its members, promotes patient education, and increases awareness among its members and the public of changing issues facing women's health care.

The American Geriatrics Society is a nationwide, not-for-profit society of geriatrics healthcare professionals founded in 1942 and dedicated to improving the health, independence, and quality of life of older people. AGS's more than 6,000

members include geriatricians, geriatrics nurse practitioners, social workers, family practitioners, physician assistants, pharmacists, and internists who are pioneers in advanced-illness care for older individuals, with a focus on championing interprofessional teams, eliciting personal care goals, and treating older people as whole persons. AGS advocates for policies and programs that support the health, independence, and quality of life of all of us as we age. AGS has a strong interest in policies to prevent and mitigate COVID-19 infection as an important public health intervention for the health and safety of our nation—but most critically for our vulnerable populations.

The American Medical Women's Association is the oldest multispecialty organization dedicated to advancing women in medicine and improving women's health. With a mission to advance women in medicine, advocate for equity, and ensure excellence in health care, AMWA envisions a healthier world where women physicians achieve equity in the medical profession and realize their full potential and where patients receive unbiased care.

The American Psychiatric Association, with more than 37,400 members, is the nation's leading organization of physicians who specialize in psychiatry. APA members engage in research into and education about diagnosis and treatment of mental health and substance use disorders, and are front-line physicians treating patients who experience mental health and/or substance use disorders. APA has participated in numerous cases in this Court and in the United States Courts of Appeals.

The American Society for Clinical Pathology is a 501(c)(3) non-profit medical specialty society representing more than 100,000 members. ASCP is one of the nation's largest medical specialty societies and the world's largest organization representing the field of laboratory medicine and pathology. ASCP membership is uniquely diverse, consisting broadly of board-certified pathologists, other physicians, clinical scientists, certified medical technologists and technicians, and educators. Together, ASCP's mission is to provide excellence in education, certification, and advocacy on behalf of patients, pathologists, and laboratory professionals to advance medicine and improve patient care. ASCP has on several occasions this year outlined its unwavering support for vaccine uptake and related mandates. See, e.g., Statement Supporting OSHA's COVID Vaccine Requirement (Nov. 17, 2021), https://bit.ly/3dun6uS; To End the Pandemic, ASCP Urges that All Americans Be Vaccinated (Aug. 11, 2021), https://bit.ly/3IvV6VS; Joint Statement in Support of COVID-19 Vaccine Mandates for All Workers in Health and Long-Term Care (July 29, 2021), https://bit.ly/3IvV6VS.

The American Society of Echocardiography is the Society for Cardiovascular Ultrasound ProfessionalsTM. Founded in 1975, ASE is the largest global organization representing cardiovascular ultrasound imaging. ASE is the leader and advocate for physicians, sonographers, scientists, veterinarians, students, and all those with an interest in echocardiography, setting practice standards and guidelines for the field. ASE is committed to advancing cardiovascular ultrasound to improve lives.

The American Society of Hematology is the world's largest professional society of hematologists, including approximately 18,000 clinicians and researchers, who are dedicated to furthering the understanding, diagnosis, treatment, and prevention of disorders affecting the blood. ASH believes that vaccinations offer the best protection against contracting COVID-19, prevent severe illness and hospitalization, and will help save lives.

The American Thoracic Society is an international, nonprofit, nonpartisan organization with more than 15,000 physicians, scientists, nurses, and respiratory therapists dedicated to improving the health and wellbeing of patients suffering from critical care illness, pulmonary disease and sleep disordered breathing. ATS's members are on the front lines of the COVID-19 response, treating patients with COVID-19 in hospital intensive care units and inpatient hospital wards, and caring for patients with long-COVID-19. Given ATS's close and daily interaction with COVID-19 patients, ATS's members are also at significant risk for occupational exposures to COVID-19. As such ATS has a compelling interest in seeing the federal government establish and enforce science-based vaccination and testing policy to protect the American public from further spread of COVID-19.

The Association of Academic Physiatrists is a nonprofit medical society representing over 2,600 physical medicine and rehabilitation physicians, residents, and medical students interested in maximizing human function. The AAP is concerned about the health and safety of the AAP membership, residents/fellows, medical students, patients, and the public health in general.

The American Lung Association is the nation's oldest voluntary health organization committed to a world free of lung disease. SARS-CoV-2 (COVID-19) is a respiratory disease that has a dramatic impact on people with lung diseases including lung cancer and chronic obstructive pulmonary disease. The American Lung Association strongly supports vaccinations and has created public education and information to increase access and overcome vaccine hesitancy. The American Lung Association has also invested significant resources in research, education and public policy advocacy regarding the adverse health effects caused by COVID-19.

INTRODUCTION AND SUMMARY OF ARGUMENT

The United States is in an unprecedented and ongoing public health crisis as it battles COVID-19—a battle that can be won only with widespread vaccination. SARS-CoV-2, the causative agent of COVID-19, has wreaked havoc in communities across the country, taxed hospitals to the point of rationing care, upended the lives of countless families, and killed over 818,000 Americans. More than 65,000 Americans have died from COVID-19 just since the American Medical Association filed its amicus curiae brief in this case in the Fifth Circuit on November 11, 2021²; the ETS was stayed during most of the intervening time. Widespread vaccination is essential to ending the COVID-19 pandemic and preventing thousands more needless deaths.

Amici's extensive review of the medical literature demonstrates that COVID-19 vaccines authorized or approved by the U.S. Food and Drug Administration are safe

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² See Brief of the American Medical Association as Amicus Curiae in Opposition to Petitioners' Motions for Stay of Emergency Temporary Standard at 1–2, BST Holdings, L.L.C. v. Occupational Safety & Health Admin., No. 21-60845 (5th Cir. Nov. 11, 2021).

and effective, and the widespread use of those vaccines is the best way to keep COVID-19 from spreading within workplaces. Enjoining OSHA's Emergency Temporary Standard requiring vaccination or testing for employees of large employers would therefore severely and irreparably harm the public interest.

ARGUMENT

I. COVID-19 Poses A Grave Danger To The Health Of Workers.

COVID-19 presents a severe risk to public health. Although most people infected with the virus will experience mild to moderate symptoms, individuals with COVID-19 can become seriously ill or die at any age. As of December 30, 2021, there have been more than fifty-three million confirmed cases of COVID-19 in the United States,³ leading to more than 3,529,000 hospitalizations⁴ and more than 818,000 deaths—more than twenty-two times the number of people in the United States who die from influenza in the average year.⁵ Even those who recover from COVID-19 may experience debilitating symptoms lasting for several months or more after the acute phase of infection. A systematic review of forty-five studies found that 73% of infected individuals experienced at least one long-term symptom.⁶ Studies also indicate that COVID-19 is associated with increased risk of adverse neurological and psychiatric outcomes.⁷

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³ COVID Data Tracker, CDC, https://bit.ly/3Du7Glz (last visited Dec. 30, 2021).

⁴ COVID Data Tracker Weekly Review, CDC (Dec. 17, 2021), https://bit.ly/3EYAdAb.

⁵ Disease Burden of Flu, CDC (Oct. 4, 2021), https://bit.ly/3ocAuZA.

⁶ Tahmina Nasserie et al., Assessment of the Frequency and Variety of Persistent Symptoms Among Patients With COVID-19: A Systematic Review, JAMA Network Open (May 26, 2021), https://bit.ly/3qocFkk.

⁷ Maxime Taquet et al., 6-month neurological and psychiatric outcomes in 236379 survivors of COVID-19: a retrospective cohort study using electronic health records, The Lancet Psychiatry (Apr. 6, 2021), https://bit.ly/3DXTbGo.

SARS-CoV-2 is highly transmissible. The original strain was more contagious than the flu, and the Delta variant of SARS-CoV-2, the leading strain until recent days, is more than twice as contagious as previous variants. The surging Omicron variant—which now accounts for more than half of new cases in the United States—appears to be more contagious still. Crucially, more than 50% of the spread of the virus may be from individuals who have no symptoms at the time of transmission.

Workplace transmission has been a major factor in the spread of COVID-19. COVID-19 outbreaks have occurred among workers in numerous industries, including service and sales, education, hospitality, construction, domestic work, meat-processing, transportation, prison, and, of course, healthcare. For example, as of December 22, 2021, the State of Oregon reports more than fifty active workplace outbreaks, including at retail distribution facilities, correctional facilities, and food production facilities, with several outbreaks resulting in hundreds of cases. In the State of Washington, between December 5 and December 11, 2021, eighty new COVID-19 outbreaks were reported in workplace settings outside of health care, including in education, manufacturing and construction, childcare and youth

⁸ Delta Variant: What We Know About the Science, CDC (Aug. 26, 2021), https://bit.ly/3plAmcy; Apoorva Mandavilli, C.D.C. Internal Report Calls Delta Variant as Contagious as Chickenpox, N.Y. Times (July 30, 2021), https://nyti.ms/3EtJXTb.

⁹ Omicron Variant: What You Need to Know, CDC (last updated Dec. 20, 2021), https://bit.ly/327xwyr; COVID Data Tracker: Variant Proportions, CDC (last visited Dec. 30, 2021), https://bit.ly/3snnhk7.

¹⁰ Science Brief: Community Use of Masks to Control the Spread of SARS-CoV-2, CDC (last updated Dec. 6, 2021), https://bit.ly/30inWYx.

¹¹ Update 64 — COVID-19 Prevention at the Workplace, World Health Organization (Jul. 28, 2021), https://bit.ly/307J1V6; Investigating and Responding to COVID-19 Cases in Non-Healthcare Work Settings, CDC (Oct. 25, 2021), https://bit.ly/3qC74XN.

¹² COVID-19 Weekly Outbreak Report — December 22, 2021, Oregon Health Authority, at 77–82, https://bit.ly/3pBEYdW.

programs, correctional facilities, food industry, and retail.¹³ And in New Mexico, as of December 29, 2021, the State has 159 workplaces (including retail, food industry, hospitality, manufacturing, and healthcare facilities) on its "rapid response COVID-19 watchlist," a designation indicating that at least two employees have tested positive for COVID-19 in a fourteen-day period. Studies have also found widespread COVID-19 outbreaks in meat- and poultry-processing facilities and "identified high proportions of asymptomatic or presymptomatic infections." Another study found that frontline health care workers had a three-fold risk of contracting SARS-CoV-2 compared to the general population. ¹⁷

Forty-five percent more people reported missing work for medical reasons during 2020 than the previous twenty-year average. ¹⁸ Another study found that adults who tested positive for SARS-CoV-2 were significantly more likely to report going to an office or school setting than adults who tested negative. ¹⁹ Protecting workers from COVID-19 is especially important given that "a large proportion of the United States

 $^{^{13}}$ Statewide COVID-19 Outbreak Report, Washington State Department of Health, at 3–4 (Dec. 15, 2021), https://bit.ly/3FAV11u.

¹⁴ Rapid Response COVID-19 Watchlist, New Mexico Environment Department (last updated Dec. 29, 2021), https://bit.ly/3FwIWu5.

¹⁵ Rapid Response COVID-19 Watchlist: Frequently Asked Questions, at 1, New Mexico Environment Department (last visited Dec. 30, 2021), https://bit.ly/3Js3gPK.

¹⁶ Michelle A. Waltenburg et al., Coronavirus Disease among Workers in Food Processing, Food Manufacturing, and Agriculture Workplaces, 27 Emerging Infectious Diseases 243 (Jan. 2021), https://bit.ly/3kp3Lip.

¹⁷ Long H. Nguyen et al., Risk of COVID-19 among front-line health-care workers and the general community: a prospective cohort study, 5 Lancet e475 (July 31, 2020), https://bit.ly/31ABwY2.

¹⁸ Charisse Jones & Matt Wynn, Coronavirus and the Workplace: The Virus Causes Record Numbers of Job Absences in 2020, USA Today (Jan. 21, 2021), https://bit.ly/3C39lgx.

¹⁹ Kiva A. Fisher et al., Telework Before Illness Onset Among Symptomatic Adults Aged ≥18 Years With and Without COVID-19 in 11 Outpatient Health Care Facilities — United States, July 2020, 69 Morbidity & Mortality Weekly Rep. 1648 (Nov. 6, 2020), https://bit.ly/3F5Ybt8.

workforce, across a variety of occupational sectors, are exposed to disease or infection at work more than once a month."²⁰

II. Vaccines Provide A Safe And Effective Way To Help Reduce Transmission Of COVID-19 In The Workplace.

COVID-19 vaccines are safe. Before FDA authorized/approved and the Centers for Disease Control and Prevention recommended use of the COVID-19 vaccines in the population, scientists conducted extensive clinical trials. FDA, CDC, and their advisory committees then conducted rigorous reviews of the data, and continue to monitor the vaccines' safety. A study of more than six million people who received the Pfizer or Moderna vaccines found that serious side effects are very rare. Another study concluded that there is no increased risk for mortality among recipients of any of the COVID-19 vaccines, and that vaccine recipients had lower non-COVID-19 mortality risks than did unvaccinated people. 3

COVID-19 vaccines are also effective. First, each of the three vaccines greatly reduces the likelihood of contracting SARS-CoV-2. The Pfizer, Moderna, and J&J/Janssen vaccines are 91.3%, 90%, and 72% effective against infection,

²⁰ Marissa G. Baker et al., Estimating the burden of United States workers exposed to infection or disease: A key factor in containing risk of COVID-19 infection, PLoS ONE (Apr. 28, 2020), https://bit.ly/3BWDoq8.

²¹ Benefits of Getting a COVID-19 Vaccine, CDC (last updated Nov. 29, 2021), https://bit.ly/3H6BsiF; Nicola P. Klein et al., Surveillance for Adverse Events After COVID-19 mRNA Vaccination, 326 JAMA 1390 (Sept. 3, 2021), https://bit.ly/3F1XQYM; COVID-19 vaccine safety surveillance, FDA (Dec. 7, 2021), https://bit.ly/3y1dDET.

²² Klein et al., *supra* note 21.

²³ Stanley Xu et al., COVID-19 Vaccination and Non-COVID-19 Mortality Risk — Seven Integrated Health Care Organizations, United States, December 14, 2020–July 31, 2021, 70 Morbidity & Mortality Weekly Rep. 1520 (Oct. 29, 2021), https://bit.ly/3D1ZRn4. Although the CDC recently recommended the Pfizer or Moderna vaccines over the J&J/Janssen vaccine, the CDC's advisory committee made clear that "receiving any vaccine is better than being unvaccinated." Press Release, CDC, CDC Endorses ACIP's Updated COVID-19 Vaccine Recommendations (Dec. 16, 2021), https://bit.ly/3yzUTfJ.

respectively.²⁴ A study of vaccine effectiveness between December 14, 2020 and August 14, 2021 found that vaccines were 80% effective at preventing SARS-CoV-2 infection among frontline workers.²⁵ Although the vaccines' efficacy wanes over time, initial data on Pfizer booster shots, during a time when Delta was the prevalent variant, show that they may boost the vaccine efficacy to more than 95%.²⁶ For comparison, the flu vaccination reduces the risk of flu illness by between 40% and 60%.²⁷

Second, each of the three vaccines is even more effective against serious illness and death. Studies have estimated the Pfizer, Moderna, and J&J/Janssen vaccines as 95.3%–97%, 95%, and 86% effective against severe disease, respectively.²⁸ The vaccines are likewise highly effective against hospital admissions, "even in the face of widespread dissemination of the delta variant."²⁹ According to one analysis, between March 11 and August 15, 2021, unvaccinated people accounted for 84.2% of patients hospitalized for COVID-19, including those infected with the Delta variant.³⁰

²⁴ Kathy Katella, Comparing the COVID-19 Vaccines: How Are They Different?, Yale Med. (Dec. 16, 2021), https://bit.ly/307jEU5.

²⁵ Ashley Fowlkes et al., Effectiveness of COVID-19 Vaccines in Preventing SARS-CoV-2 Infection Among Frontline Workers Before and During B.1.617.2 (Delta) Variant Predominance — Eight U.S. Locations, December 2020–August 2021, 70 Morbidity & Mortality Weekly Rep. 1167 (Aug. 24, 2021), https://bit.ly/3px2OGB.

²⁶ Pfizer and BioNTech Announce Phase 3 Trial Data Showing High Efficacy of a Booster Dose of Their COVID-19 Vaccine, Pfizer (Oct. 21, 2021), https://bit.ly/3EXQa9K. A study comparing people in Israel 60 years old and older who have and have not received third-dose boosters also provides support for the increased efficacy of booster shots. See Yinon M. Bar-On et al., Protection of BNT162b2 Vaccine Booster against Covid-19 in Israel, 385 New Eng. J. Med. 1393 (Oct. 7, 2021), https://bit.ly/327ijh2.

²⁷ Vaccine Effectiveness: How Well Do Flu Vaccines Work?, CDC (last visited Dec. 30, 2021), https://bit.ly/3HifLMP.

²⁸ Katella, *supra* note 24.

²⁹ Sara Y. Tartof et al., *Effectiveness of mRNA BNT162b2 COVID-19 Vaccine Up to 6 Months*, 398 Lancet 1407, 1407 (Oct. 4, 2021), https://bit.ly/3ouPvqS.

³⁰ Mark W. Tenforde, Association Between mRNA Vaccination and COVID-19 Hospitalization and Disease Severity, 326 JAMA 2043 (Nov. 4, 2021), https://bit.ly/3bZBHhb.

As of November 27, 2021, the age-adjusted rate of COVID-19-associated hospitalizations in unvaccinated adults was more than 17 times that of fully vaccinated adults.³¹ Although research regarding vaccine efficacy against the Omicron variant is still developing, initial reports suggest that vaccination, including a booster, remains efficacious against severe disease.³²

Third, as OSHA acknowledged, evidence suggests that those who are fully vaccinated are contagious for shorter periods than unvaccinated people.³³ Most importantly, "[r]egardless of viral loads in vaccinated and unvaccinated individuals, the fact remains clear that unvaccinated people pose a higher risk of transmission to others than vaccinated people, simply because they are much more likely to get COVID-19 in the first place."³⁴

III. The More Workers Who Get Vaccinated, The Safer Workplaces Become.

The more workers who get vaccinated, the closer we are to slowing the spread of the virus and creating a safer environment. As the American Medical Association has explained, "[t]he only way to truly end this pandemic is to ensure *widespread* vaccination." "By limiting viral spread, vaccination also minimizes opportunities for the introduction of more infectious variants through random mutation." 36

³⁵ Press Release, American Medical Ass'n, *AMA*, *AHA*, *ANA urge vaccinations as U.S. reaches* 750,000 COVID-19 deaths (Nov. 4, 2021) (emphasis added), https://bit.ly/3C07CIS.

 $^{^{31}}$ See Rates of laboratory-confirmed COVID-19 hospitalizations by vaccination status, CDC (last updated Dec. 21, 2021), https://bit.ly/3oIwsZ4.

³² See Carl Zimmer & Sheryl Stolberg, New Studies Raise Hopes That Vaccines Prevent Severe Disease From Omicron, N.Y. Times (Dec. 15, 2021), https://nyti.ms/3H3uCd4.

 $^{^{\}rm 33}$ See COVID-19 Vaccination and Testing; Emergency Temporary Standard, 86 Fed. Reg. 61,402, 61,419 (Nov. 5, 2021).

 $^{^{34}} Id$

³⁶ Vaccination to Prevent COVID-19 Outbreaks with Current and Emergent Variants — United States, 2021, CDC (July 27, 2021), https://bit.ly/3oFcakp.

Widespread vaccination is the only practical way to push the effective reproduction rate of the SARS-CoV-2 virus below one, the rate at which endemic transmission begins to die out.

Widespread vaccination reduces the likelihood of infections among both vaccinated and unvaccinated people. During the wave of Delta infections, "states with high vaccination rates (>70% of the population) are reporting lower numbers of vaccine breakthrough cases as well as hospitalizations and deaths from COVID-19." An analysis found that "[i]n the presence of high community prevalence of Covid-19, nursing homes with low staff vaccination coverage had higher numbers of cases and deaths than those with high staff vaccination coverage." Widespread vaccination is particularly important for people who cannot get vaccinated due to age or medical condition, as well as immunocompromised people, who remain particularly susceptible to infection even after vaccination. 39

History has shown that vaccine requirements are critical to achieving the degree of vaccination necessary to curb or eradicate infectious disease. Countries or states that mandated smallpox vaccination saw 10 to 30 times fewer smallpox cases than those that declined to do so.⁴⁰ Before compulsory school vaccination laws were in place throughout the United States, states with strict vaccination requirements had

 $^{^{37}}$ Carlos del Rio et al., Confronting the Delta Variant of SARS-CoV-2, Summer 2021, 326 JAMA 1001, 1002 (Aug. 18, 2021), https://bit.ly/3bVL5Cj.

³⁸ Brian E. McGarry et al., *Nursing Home Staff Vaccination and Covid-19 Outcomes*, New Eng. J. Med., Correspondence (Dec. 8, 2021), https://bit.ly/3pQ7O9H.

³⁹ Katherine Lontok, *How Effective Are COVID-19 Vaccines in Immunocompromised People?*, Am. Soc'y for Microbiology (Aug. 12, 2021), https://bit.ly/3F24HBh.

⁴⁰ Rajaie Batniji, *Historical Evidence to Inform COVID-19 Vaccine Mandates*, 397 Lancet 791 (Feb. 27, 2021), https://bit.ly/3Fl2ykM.

incidence rates of measles less than half those of states that did not. ⁴¹ More recently, Ohioans exposed to measles abroad resulted in "the largest outbreak documented in the United States in more than two decades. ⁴² Approximately 89% of those who contracted measles were unvaccinated, but "high baseline vaccination coverage in the general community was probably effective against further spread of measles." ⁴³ COVID-19 spreads in communities with fewer vaccinated individuals, even if they are within or adjacent to communities with a higher proportion of vaccinated individuals. The more people who share a workspace who are vaccinated, the better protected all workers—vaccinated and unvaccinated alike—will be.

Applicants suggest that OSHA cannot establish the necessity of the ETS simply because OSHA did not require vaccines sooner. *See* Business Association Applicants' Mot. at 15. The timing of the ETS, however, does not undermine its necessity. OSHA's decision to issue the ETS within three months of FDA's full approval of a COVID-19 vaccine was consistent with the American Medical Association's policy recommendation that vaccine requirements are appropriate only after a vaccine has received full authorization, the vaccine is widely publicly available, and there has been a reasonable amount of time allotted for voluntary uptake of the authorized vaccine.⁴⁴ Far from undermining the ETS's necessity, the timing shows that OSHA

⁴¹ Kevin M. Malone & Alan R. Hinman, Vaccination Mandates: The Public Health Imperative and Individual Rights, in Law in Public Health Practice 262, 269 (1st ed., 2003), https://bit.ly/3BUviyg. ⁴² Paul A. Gastañaduy et al., A Measles Outbreak in an Underimmunized Amish Community

in Ohio, New Eng. J. Med. 1343, 1349 (Oct. 6, 2016), https://bit.ly/3Cm0RkY.

⁴³ *Id.* at 1350.

⁴⁴ See FDA Approves First COVID-19 Vaccine, FDA (Aug. 23, 2021), https://bit.ly/3ySIrYG; Digital Vaccine Credential Systems and Vaccine Mandates in COVID-19 H-440.808, American Medical Ass'n (last visited Dec. 30, 2021), https://bit.ly/3yUZf19.

made a considered decision consistent with medical best practices and its obligations under the law.

IV. Widespread Vaccination Is The Most Effective Way To Protect Workers From COVID-19.

The statistics on COVID-19 vaccine efficacy speak for themselves. No other measure has been shown to reduce the risk of infection, hospitalization, and death to the degree that vaccination does. The science is clear: no arguments against the need for vaccination are medically valid, other than to accommodate a medical contraindication.

Natural immunity—the immunity against SARS-CoV-2 that develops following recovery from infection—is not an adequate substitute for vaccination.⁴⁵ Infection, unlike vaccination, carries a significant risk of death or serious illness. Moreover, vaccination better protects previously infected people against reinfection. Studies have shown that unvaccinated people are at least twice as likely to become reinfected as are vaccinated people.⁴⁶ There is no evidence that vaccination is harmful to people who were previously infected.

Other mitigation measures, such as mask wearing and social distancing, remain important. They do not, however, provide the same level of protection against COVID-19 as vaccination. Although masks can be highly effective at limiting the

⁴⁶ Alyson M. Cavanaugh et al., Reduced Risk of Reinfection with SARS-CoV-2 After COVID-19 Vaccination — Kentucky, May–June 2021, 70 Morbidity & Mortality Weekly Rep. 1081 (Aug. 13, 2021), https://bit.ly/306e4Bg.

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⁴⁵ See Catherine H. Bozio et al., Laboratory-Confirmed COVID-19 Among Adults Hospitalized with COVID-19-Like Illness with Infection-Induced or mRNA Vaccine-Induced SARS-CoV-2 Immunity — Nine States, January-September 2021, 70 Morbidity & Mortality Weekly Rep. 1539 (Nov. 5, 2021), https://bit.ly/3kvoBwR (finding 5.49 times higher odds of laboratory-confirmed COVID-19 among previously infected, unvaccinated patients than among fully vaccinated patients).

transmission of SARS-CoV-2, many people choose not to wear masks, even when encouraged or legally required to do so. Noncontinuous mask-wearing has been shown to result in the spread of COVID-19 in the workplace.⁴⁷

Even for those who work remotely or outdoors at times, vaccination provides the best protection against COVID-19. The virus spreads through respiratory droplets or aerosols when an infected individual talks, breathes heavily, sings, coughs, or sneezes. Particles containing the virus can spread more than six feet, and infection can occur in a matter of minutes. Although rare, transmission may even occur through touching objects upon which viral droplets have landed, followed by touching the mouth, nose, or eyes. Workplace infection can thus occur even in environments that are outdoors, where employees' use of shared spaces is staggered or reduced, or where employees are in physical proximity to each other only rarely. 50

The ETS's alternative to vaccination—testing at regular intervals—protects workers better than no requirement at all. It does not, however, rise to the level of protection that widespread uptake of vaccinations would provide. The ETS is appropriately structured to "strongly encourag[e] vaccination."⁵¹ Immediate, widespread vaccination against COVID-19 is the surest way to protect the U.S. workforce and the public and to end this costly pandemic.

 $^{^{47}}$ Donatella Sarti et al., $COVID\text{-}19\,in$ Workplaces: Secondary Transmission, 65 Annals of Work Exposures & Health 1145 (Nov. 2021), https://bit.ly/3Cj6oJ3.

⁴⁸ Appendices, CDC (Nov. 12, 2021), https://bit.ly/3nbxAos.

 $^{^{49}\,}Preventing~and~mitigating~COVID-19~at~work,$ World Health Organization (May 19, 2021), https://bit.ly/3wMJ451.

 $^{^{50}}$ Indeed, the World Health Organization considers remote workers at "lower risk]," not no risk, of infection. Id. at 2.

⁵¹ 86 Fed. Reg. at 61,402.

CONCLUSION

For the reasons stated above and in Respondents' filings, *Amici* urge this Court to deny Applicants' applications for stay.

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