



Congress of the United States

September 28, 2021

VIA ELECTRONIC TRANSMISSION

The Honorable Rochelle Walensky, M.D.
Director
U.S. Centers for Disease Control and Prevention
1600 Clifton Road
Atlanta, GA 30329

Director Walensky:

While we have always encouraged and supported COVID-19 vaccinations, never before has it been more important for the U.S. Centers for Disease Control and Prevention (CDC) to recognize natural immunity. The U.S. Department of Defense vaccine mandate has the potential to lead to a national security crisis by separating up to 20 percent of our military personnel, many of whom likely have natural immunity. Additionally, as the vaccine mandate plays out, it will only further exacerbate the health care crisis shortage of nurses, nurse aids, and others providers in certified Medicare and Medicaid facilities.^{1,2} Across America, manufacturing will come to a screaming halt, and all businesses – big and small – will be impacted. Many hospitals, nursing homes, private companies, and large corporations have expressed that natural immunity must be considered.

We appreciate your efforts at the CDC in providing vaccine recommendations to fight the COVID-19 pandemic. As members of the Doctors Caucus, we applaud vaccines' role in preventing infectious diseases such as polio and measles, and now COVID-19. However, we must also acknowledge the need to develop patient-centered solutions that evidence medical necessity. To this end, we strongly urge the CDC to acknowledge infection-acquired immunity in addition to vaccine-acquired immunity. Natural immunity, to date, has been dismissed without adequate scientific acknowledgment and the CDC continues to ignore scientific evidence when making policies to achieve herd immunity.

¹ U.S. Centers for Medicare and Medicaid Services (CMS), Biden-Harris Administration Takes Additional Action to Protect America's Nursing Home Residents from COVID-19, August 18, 2021, <https://www.cms.gov/newsroom/press-releases/biden-harris-administration-takes-additional-action-protect-americas-nursing-home-residents-covid-19>.

² CMS, Biden-Harris Administration to Expand Vaccination Requirements for Health Care Settings, September 9, 2021, <https://www.cms.gov/newsroom/press-releases/biden-harris-administration-expand-vaccination-requirements-health-care-settings>.

The CDC defines vaccination as the act of introducing a vaccine into the body to produce protection from a specific disease.³ Further, immunity is defined by having a sufficient level of protection from an infectious disease where you can be exposed to it without becoming infected. Health experts have thus far relied heavily on measuring antibodies to determine an individual's level of protection. And studies show that infection-acquired immunity yields a sufficient immune response. Peer-reviewed journal articles studied individuals who recovered from COVID-19 and found they had potent antibodies.⁴ When compared to vaccination, it was found that levels of antibodies taken before vaccination in people who were previously infected by the virus were similar to those seen in uninfected people after their first shot.^{5,6} Another study found that prior infection generated an immune response that offered protection from reinfection in the six months following infection.⁷

Published and submitted journal articles verify immunity from natural infection and innate immunity in measuring an individual's level of protection to COVID-19.⁸ One study examining this found that patients who recovered from COVID-19 could produce long-term immune response.⁹ In addition, a study examining rhesus macaques found that they successfully fought off reinfection and confirmed innate immunity is needed for long-term protection from the virus.¹⁰ A study in people evaluating natural immune response in nearly 200 cases showed that durable immunity against reinfection was possible for most individuals.¹¹

Examining patient populations across the world, some studies have found that natural immunity provided a lower risk of reinfection. For example, a study evaluating nearly 13,500 patients in Italy suggested that reinfections were rare events and patients who recovered from COVID-19 have a lower risk of reinfection.¹² In Denmark, researchers evaluated over half a million individuals and found that protection against repeat infection was over 80 percent.¹³ Of greater note, newly released data from Israel shows that people who once had COVID-19 were much less likely than never-infected, vaccinated people to get

³ U.S. Centers of Disease Control and Prevention (CDC), Immunization: The Basics, Definition of Terms, accessed September 20, 2021, <https://www.cdc.gov/vaccines/vac-gen/imz-basics.htm>.

⁴ Houlihan, Catherine F., et al., "Pandemic peak SARS-CoV-2 infection and seroconversion rates in London frontline health-care workers," *The Lancet* 396.10246 (2020): e6-e7, [https://doi.org/10.1016/S0140-6736\(20\)31484-7](https://doi.org/10.1016/S0140-6736(20)31484-7).

⁵ Ebinger, Joseph E., et al., "Antibody responses to the BNT162b2 mRNA vaccine in individuals previously infected with SARS-CoV-2," *Nature Medicine* 27.6 (2021): 981-984, <https://doi.org/10.1038/s41591-021-01325-6>.

⁶ Goel, Rishi R., et al., "Distinct antibody and memory B cell responses in SARS-CoV-2 naïve and recovered individuals after mRNA vaccination," *Science immunology* 6.58 (2021): eabi6950, DOI: 10.1126/sciimmunol.abi6950.

⁷ Lumley, S. F. et al., "Antibodies to SARS-CoV-2 are associated with protection against reinfection," Preprint at <https://doi.org/10.1101/2020.11.18.20234369> (2020).

⁸ Le Bert, Nina, Anthony T. Tan, Kamini Kunasegaran, Christine YL Tham, Morteza Hafezi, Adeline Chia, Melissa Hui Yen Chng et al. "SARS-CoV-2-specific T cell immunity in cases of COVID-19 and SARS, and uninfected controls." *Nature* 584, no. 7821 (2020): 457-462, <https://doi.org/10.1038/s41586-020-2550-z>.

⁹ Turner, Jackson S., et al. "SARS-CoV-2 infection induces long-lived bone marrow plasma cells in humans." *Nature* (2021): 1-5, <https://doi.org/10.1038/s41586-021-03647-4>.

¹⁰ McMahan, Katherine, et al. "Correlates of protection against SARS-CoV-2 in rhesus macaques." *Nature* 590.7847 (2021): 630-634, <https://doi.org/10.1038/s41586-020-03041-6>.

¹¹ Dan, Jennifer M., et al., "Immunological memory to SARS-CoV-2 assessed for up to 8 months after infection." *Science* 371.6529 (2021), <https://doi.org/10.1126/science.abf4063>.

¹² Vitale, Josè, et al., "Assessment of SARS-CoV-2 Reinfection 1 Year After Primary Infection in a Population in Lombardy, Italy," *JAMA internal medicine* (2021), doi:10.1001/jamainternmed.2021.2959.

¹³ Hansen, Christian Holm, et al., "Assessment of protection against reinfection with SARS-CoV-2 among 4 million PCR-tested individuals in Denmark in 2020: a population-level observational study," *The Lancet* 397.10280 (2021): 1204-1212, [https://doi.org/10.1016/S0140-6736\(21\)00575-4](https://doi.org/10.1016/S0140-6736(21)00575-4).

Delta, develop symptoms from it, or become hospitalized with serious COVID-19.¹⁴ According to the scholars, individuals who were both previously infected with COVID-19 and given a single dose of the vaccine gained additional protection against the Delta variant. It can be inferred that an individual's durable immune response led to this protection.

Given the above, we urge the CDC to harness available data and technology to establish better patient-centered solutions that will truly determine an individual's level of protection against COVID-19. It may be the case that it is not medically necessary for an individual to receive a vaccination. It may also be the case that a sufficient level of protection may be produced from one dose.

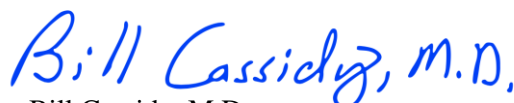
Herd immunity needs to be measured through vaccination rates and natural immunity. The COVID-19 Scenario Modeling Hub, a consortium of researchers representing academic and federal researchers that advises your agency, recently shared new models predicting a steady decline in COVID-19 cases through March.¹⁵ In fact, the lead researcher discussed that vaccination rates and natural immunity were factored in these models, as he stated that he believes there is enough immunity in this country from a combination of enough people getting vaccinated and enough people having been exposed to the virus.

We urge the CDC to acknowledge natural immunity and work with other federal agencies to ensure all future guidance, policies, and federally-funded research take this evidence into account and build off it. Thank you for considering this urgent request. We would appreciate a reply no later than October 18, 2021.

Sincerely,



Roger Marshall, M.D.
U.S. Senator



Bill Cassidy, M.D.
U.S. Senator



Rand Paul, M.D.
U.S. Senator



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Mariannette J. Miller-Meeks M.D.
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Larry Bucshon, M.D.
U.S. Member of Congress

¹⁴ Science, Having SARS-CoV-2 once confers much greater immunity than a vaccine—but vaccination remains vital, August 26, 2021, <https://www.science.org/content/article/having-sars-cov-2-once-confers-much-greater-immunity-vaccine-vaccination-remains-vital>.

¹⁵ NPR, Is The Worst Over? Modelers Predict A Steady Decline In COVID Cases Through March, by Rob Stein and Carmel Wroth, September 22, 2021, <https://www.npr.org/sections/health-shots/2021/09/22/1039272244/is-the-worst-over-modelers-predict-a-steady-decline-in-covid-cases-through-march>.



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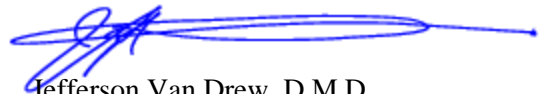
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Cc: The Honorable Xavier Becerra, Secretary, U.S. Department of Health and Human Services
Dr. Francis Collins, Director, U.S. National Institutes of Health