PRIVATE CORRESPONDANCE

15 Condor Road
Bedford, NS B4A 3K9
Tel (519) 590-8291

September 7, 2021

The Office of the Premier of Nova Scotia
PO Box 726
Halifax, NS B3J 2T3

Subject: COVID-19 vaccine mandates in Nova Scotia

CC: MLA Michelle Thompson (Minister of Health and Wellness); MLA Karla MacFarlane (Minister of L'nu Affairs; MLA Pat Dunn (Minister of African Nova Scotian Affairs)

Dear Premier Houston,

We are a group of frontline physicians (family doctors, emergency physicians, hospitalists, ICU doctors and others) who are deeply concerned about the ethics and potential for detrimental societal consequences of mandating COVID-19 vaccination and vaccine passports. We urge you to consider our concerns and respectfully request your response after reviewing the information in this letter:

Question 1: Since COVID-19 vaccines have not been proven to effectively prevent or even reduce transmission of the Delta variant, how can the coercion involving vaccine mandates be scientifically or ethically justified from a disease reduction perspective?

Question 2: Why is natural immunity not considered equivalent or superior to vaccination in Nova Scotia?

Question 3: If a person who is concerned about COVID-19 vaccination is threatened with the loss of their employment or otherwise to be significantly restricted from participating in society unless they are vaccinated, can their consent be viewed as free of coercion or controlling influence?

Question 4: Based on the accepted criteria of medical informed consent, which includes balancing the personal risks and benefits of any intervention, and given that a large portion of the population is not at significant risk of complications from COVID-19, how can we ethically impose upon all to get vaccinated for the "collective" good?

Question 5: Specifically, with respect to healthcare workers and the current NSH staffing crisis, can we afford to lose any nurses, doctors, or allied health professionals due to a mandatory vaccination policy?

Question 6: Since there is evidence that vaccine mandates could exacerbate rather than improve vaccine uptake, especially among our most marginalized citizens (in addition to unfairly discriminating against those choosing against vaccination), is the coercion associated with vaccine passports justified?

We acknowledge the seriousness of the COVID-19 pandemic and have cared for very ill COVID-19 patients. We recognize the value of vaccines and strongly support providing vaccines to those who choose them. However, we also embrace the principle of freedom of the individual to accept or refuse medical interventions without coercion. The concept of free and informed consent is a major tenet of medical ethics under which we have cared for our patients through our entire careers.

We recognize that COVID-19 vaccines are effective at preventing severe disease, hospitalizations, and deaths. However, vaccine mandates are not supported by the latest medical literature and are potentially unethical and destructive to communities and societies. We are writing to outline why such measures cannot justifiably be enforced in our province.

We are alarmed that Dr. Strang has suggested that businesses may enforce their own vaccine mandates, a position that lacks scientific foundation, unnecessarily discriminates against members of our community, and may contravene the Nova Scotia Human Rights Act.

The questions we raised above arise from a review of the recent medical literature and other pertinent data, which we urge you to consider.

1. Viral Transmission - Recent reports indicate that COVID-19 vaccines are ineffective at preventing transmission of the Delta variant of SARS-CoV-2. For example:

a. Massachusetts: A July 2021 CDC report documents an outbreak of 468 cases of Delta variant in a 69% fully vaccinated population. 74% of the cases were in fully vaccinated individuals and 4 out of the 5 hospitalized patients (ages 20-70) were fully vaccinated [1].

b. California: Differences in viral loads for 1373 cases of COVID-19 from Feb 1 to June 30, 2021 were nonsignificant between unvaccinated and fully vaccinated persons overall and symptomatic breakthrough infections had similar viral loads to unvaccinated infections [2]. At the University of California San Diego Health in July 2021 fully vaccinated workers accounted for 75.2% of COVID-19 infections within the workforce [3].

c. Vietnam: A study of 69 vaccinated health care workers who had breakthrough infections with the Delta variant found that vaccinated persons can transmit the virus even while asymptomatic, and that "the absence of correlation between neutralizing antibody levels and peak viral loads suggested that vaccine might not lower the infectivity of breakthrough cases" [4].

d. Israel: Despite an extremely early and effective vaccination campaign, Israel reported 10,946 cases on Aug 30th, the highest global seven-day rolling average, and the highest daily case count ever reported in the country since the onset of the pandemic [5].

e. Other countries with 60% or more vaccination uptake such as Malta, Iceland, Israel, Denmark, and Spain have all also experienced the onset of 4th waves of COVID-19 cases despite their comprehensive vaccination campaigns [6].

f. On Aug 4, 2021, CDC Director Dr. Rochelle Walensky remarked about the COVID-19 vaccines: "They continue to work well with delta with regard to severe illness and death, but what they can't do anymore is prevent transmission" [7].

2. Natural Immunity - Vaccine mandates discriminate against those who have already contracted COVID-19:

a. A recent Israeli study found that natural immune protection is superior to vaccination. Those who were [i]vaccinated were 27 times more likely to get symptomatic COVID-19 than those with a history of previous infection [8]. Several papers have documented a robust immunological response to SARS-CoV2 infection including durable antibodies, B & T cell responses targeting multiple viral proteins, and long-lived plasma cells [9,10]. A recent study out of Israel "demonstrated that natural immunity confers longer lasting and stronger protection against infection, symptomatic disease, and hospitalization caused by the Delta variant of SARS-CoV-2, compared to the BNT162b2 (Pfizer) two-dose vaccine-induced immunity" [11].

b. Nova Scotia / NSH has not made antibody or T-cell testing easily accessible to residents and we are unaware of any published seroprevalence studies on our population. A comprehensive worldwide analysis by Stanford epidemiologist Professor John Ioannidis found that based on seroprevalence studies "one may cautiously estimate ~1.5-2.0 billion infections as of 21 February 2021 (compared with 112 million documented cases)" [12]. Likewise, the prevalence of immunity to SARS-CoV-2 from infection is greater and, likely, far greater in NS than our number of documented cases.

c. To force vaccinations on Nova Scotians (by way of threat of losing their livelihood or other ability to participate in normal society) who may already have more robust natural immunity to the virus than what vaccines can provide is not only unscientific but practically indefensible since the individual is unable to verify their immune status prior to vaccination.

3. Discrimination – As physicians it is our duty to consider how medical policy decisions affect the rights and freedoms of individual citizens.

a. On Aug 27th, 2021, Harvard epidemiologist Dr. Martin Kulldorff stated: "Prior COVID disease (many working class) provides better immunity than vaccines (many professionals), so vaccine mandates are not only scientific nonsense, they are also discriminatory and unethical" [13]

b. The poor, working class, and BIPOC have borne the brunt of the pandemic in terms of infection, death, and the social and economic impacts of governmental response [14]. These populations have historical distrust of government and medical authorities, having been the target of medical experimentation (e.g., Tuskegee) and colonialism in the past [15]. These populations also have some of the lowest vaccination rates [16]. To deny the historical and lived experience of these marginalized groups and then segregate them from public life via vaccine mandates and passports further marginalizes them.

c. The Nova Scotia Human Rights Act "protects against discrimination based on an irrational fear of contracting an illness or disease" [17]. Vaccine mandates, and the government and media messaging that accompanies them, encourage society to treat unvaccinated citizens as potentially dangerous "carriers of disease", which is dehumanizing and scientifically unjustifiable given the viral transmission data cited above. This kind of discrimination has happened in the past with the AIDS epidemic with tragic results [18].

4. Informed Consent and Bodily Autonomy – Vaccine mandates are inherently coercive and defy the concept of informed consent. Please consider the following:

a. The Moderna and Pfizer COVID-19 vaccines are approved in Canada under an "Interim Order" and the clinical trials will not be completed until 2022 and 2023 [19,20]. To mandate vaccines that have not completed clinical trials is unprecedented in the history of this province and our country.

b. "The three fundamental criteria that are needed for informed consent is that the patient must be competent, adequately informed, and not coerced" [21]. Patients must always be free to consent to or refuse treatment and be free of any suggestion of duress or coercion [22]. The CMPA, a mutual legal defense organization for Canadian physicians, recently published the following about COVID-19 vaccines: "Because COVID-19 vaccines may be novel in the manner in which they have been developed and approved, special care should be taken when obtaining informed consent to disclose all of the known risks, side effects, and discomfort that might be encountered (regardless of how remote the risk might be). In addition, it is generally expected that the patient will be informed if there may be other risks not yet known and the anticipated benefits may not be achieved" [23]. Some citizens of NS are not comfortable with the unknown risks and unrealized benefits of COVID-19 vaccination and must have the right to refuse this medical intervention based on the ethical principle of informed consent disclosure.

c. Even in the context of a pandemic we must respect the ethical standard of bodily autonomy. Autonomy is "self-rule that is free from controlling interference by others" [24]. "It is a basic accepted legal principle that every human being of adult years and of sound mind has the right to determine what shall be done with his or her own body" [25]. The autonomy of Nova Scotians must be respected by government and citizens must be free to choose what happens to their bodies without the threat of losing their employment, being banned from business venues, and otherwise excluded from normal public life because of declining COVID-19 vaccination.

5. Burden of COVID-19 in Nova Scotia - The incremental benefit of mandating vaccines over and above strong public health recommendation is questionable because our most vulnerable in NS are already protected. Consider:

a. The outcomes for COVID-19 infection are extremely age-stratified. The risk for the young is several orders of magnitude lower than the risk for the elderly [26, 27]. In NS, the average age of death from COVID-19 is 77 [28]. As of Sept 1st, ~90% of NS residents aged 60+ are already fully vaccinated [28]. COVID-19 vaccination is generally effective in terms of personal risk of death and severe illness so our most vulnerable are already significantly protected from severe disease and hospitalization.

b. Given the most recent epidemiological data coming out of countries such as Israel [29] and Iceland [30], herd immunity via mass vaccination may not be an achievable goal and thus the implementation of vaccine mandates as an incentive to reach herd immunity is no longer scientifically justifiable.

c. There are many other public health issues that plague Nova Scotians such as obesity, smoking, drug and alcohol abuse disorders, as well as mental health issues, all of which cause orders of magnitude greater morbidity and mortality than COVID-19. We do not implement unethical coercive measures to prevent healthcare system overload caused by any of these other largely preventable conditions.

6. Exacerbation of Healthcare Staff Shortages - A vaccine mandate will exacerbate existing staffing issues within NSH. Physicians, nurses, and allied health professionals who have declined primary COVID-19 vaccination or those who may decline future boosters, may choose to terminate their employment if mandatory vaccination is implemented.

7. Legal Challenges - Vaccine passports and mandatory vaccination would expose the government and NSH to litigation risk.

a. Vaccine mandates and passports have led to lawsuits and growing unrest worldwide [31, 32, 33]. Lawsuits against the province of Ontario and Government of Canada are already in progress due to this issue [34]. The Justice Center for Constitutional Freedoms has stated that they intend to challenge any mandatory vaccination policies in Canadian courts [35].

b. Premier Houston has admitted that "health care is a mess" in Nova Scotia and that substantial financial investments are required to fix these issues [36]. Rather than being allocated to implementing mandates and passports and then to fighting the resultant lawsuits, not to mention dealing with the expected public outcry, our tax dollars would be better spent improving our struggling healthcare system.

8. Questionable Effectiveness in Achieving the Goal of Vaccine Uptake – Data suggests that vaccine mandates and passports would lower rather improve vaccine uptake, especially among already marginalized citizens [37].

Conclusion

There are additional factors, data, and arguments that could be brought to bear but this letter is not meant to be a comprehensive review. Our hope is that you recognize that there are enough legitimate ethical, medical, scientific, and legal questions surrounding mandatory vaccination and vaccine passports to reject them as policies within Nova Scotia.

We know of other physicians who share these views but who fear the possible repercussions of speaking out. We await your response and request an opportunity to meet with you in person to discuss these concerns further.

Thank you for your attention to this most urgent matter.

Sincerely,

Dr. Aris Lavranos (B4A 3K9)
Dr. [redacted]
Dr. [redacted]
Dr. [redacted]
Dr. Dion Davidson (B4N 1M8)

Dr. [redacted]
Dr. [redacted]
Dr. [redacted]
Dr. Chris Milburn (B1P 0B2)
Dr. [redacted]

Dr. [redacted]
Dr. [redacted]
Dr. [redacted]

References

1. Brown CM, Vostok J, Johnson H, Burns M, Gharpure R, Sami S, et al. Outbreak of SARS-CoV-2 infections, including COVID-19 vaccine breakthrough infections, associated with large public gatherings — Barnstable County, Massachusetts, July 2021. MMWR Morb Mortal Wkly Rep. 2021 July 30 . Available from: https://www.cdc.gov/mmwr/volumes/70/wr/pdfs/mm7031e2-H.pdf
2. Servellita, V., Morris, M.-K., Sotomayor-Gonzalez, A., Gliwa, A. S., Torres, E., Brazer, N., … Chiu, C. Y. (2021). Predominance of antibody-resistant SARS-CoV-2 variants in vaccine breakthrough cases from the San Francisco Bay Area, California. MedRxiv, 2021.08.19.21262139. Available at: https://www medrxiv.org/content/10.1101/2021.08.19.21262139v1
3. Keehner, J., Horton, L. E., Binkin, N. J., Laurent, L. C., Pride, D., Longhurst, C. A., Abeles, S. R., & Torriani, F. J. (2021). Resurgence of SARS-CoV-2 Infection in a Highly Vaccinated Health System Workforce. *New England Journal of Medicine*. https://doi.org/10.1056/NEJMc2112981
4. Chau, Nguyen Van Vinh and Ngoc, Nghiem My and Nguyet, Lam Anh and Quang, Vo Minh et al. Transmission of SARS-CoV-2 Delta Variant Among Vaccinated Healthcare Workers, Vietnam. Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3897733
5. Website: Israel leads world in average of new daily COVID cases per capita: Study. Sept 1, 2021 https://www.aa.com.tr/en/latest-on-coronavirus-outbreak/israel-leads-world-in-average-of-new-daily-covid-cases-per-capita-study/2352018
6. Malta, Israel, Iceland, Canada, Denmark & Spain - Coronovirus Pandemic Country Profiles. Sept 2, 2021. https://ourworldindata.org/coronavirus/country/malta?country=MLT~ISR~ISL~CAN~DNK~ESP
7. Website: CDC Director - Vaccines No Longer Prevent You From Spreading COVID. Aug 6, 2021. https://www realclearpolitics.com/video/2021/08/06/cdc_director_vaccines_no_longer_prevent_you_from_spreading_covid.html
8. Gazit, S., Shlezinger, R., Perez, G., Lotan, R., Peretz, A., Ben-Tov, A., Patalon, T. (2021). Comparing SARS-CoV-2 natural immunity to vaccine-induced immunity: reinfections versus breakthrough infections. MedRxiv, 2021.08.24.21262415. Available at: https://www medrxiv.org/content/10.1101/2021.08.24.21262415v1.full.pdf
9. Ivanova, E. N., Devlin, J. C., Buus, T. B., Koide, A., Shwetar, J., Cornelius, A., … Koralov, S. B. (2021). SARS-CoV-2 mRNA vaccine elicits a potent adaptive immune response in the absence of IFN-mediated inflammation observed in COVID-19. MedRxiv, 2021.04.20.21255677. Available at: https://www medrxiv.org/content/10.1101/2021.04.20.21255677v2.full.pdf
10. Cohen, K. W., Linderman, S. L., Moodie, Z., Czartoski, J., Lai, L., Mantus, G., … McElrath, M. J. (2021). Longitudinal analysis shows durable and broad immune memory after SARS-CoV-2 infection with persisting antibody responses and memory B and T cells. MedRxiv, 2021.04.19.21255739. Available at: https://www ncbi.nlm nih.gov/pmc/articles/PMC8253687/pdf/main.pdf
11. Gazit, S., Shlezinger, R., Perez, G., Lotan, R., Peretz, A., Ben-Tov, A., Cohen, D., Muhsen, K., Chodick, G., & Patalon, T. (2021). Comparing SARS-CoV-2 natural immunity to vaccine-induced immunity: reinfections versus breakthrough infections. MedRxiv, 2021.08.24.21262415. Available at: https://www medrxiv.org/content/10.1101/2021.08.24.21262415v1.full.pdf+html
12. Ioannidis JPA. Reconciling estimates of global spread and infection fatality rates of COVID-19: An overview of systematic evaluations. Eur J Clin Invest. 2021;51(5):e13554. doi:10.1111/eci.13554
13. Website: Harvard Epidemiologist Says the Case for COVID Vaccine Passports Was Just Demolished. Foundation for Economic Education. Article by Jon Miltimore. Published Aug 30, 2021. https://fee.org/articles/harvard-epidemiologist-says-the-case-for-covid-vaccine-passports-was-just-demolished/
14. Tai, D. B. G., Shah, A., Doubeni, C. A., Sia, I. G., & Wieland, M. L. (2021). The Disproportionate Impact of COVID-19 on Racial and Ethnic Minorities in the United States. Clinical Infectious Diseases, 72(4), 703–706. Available at: https://academic.oup.com/cid/article/72/4/703/5860249?login=true
15. Bajaj, S. S., & Stanford, F. C. (2021). Beyond Tuskegee — Vaccine Distrust and Everyday Racism. New England Journal of Medicine, 384(5), e12. Available at: https://www nejm.org/doi/full/10.1056/NEJMpv2035827
16. Website: Latest Data on COVID-19 Vaccinations by Race/Ethnicity. Published Aug 18, 2021. https://www kff.org/coronavirus-covid-19/issue-brief/latest-data-on-covid-19-vaccinations-race-ethnicity/.
17. Nova Scotia Human Rights Commission. COVID-19 and Discrimination. Feb 28, 2020. https://humanrights.novascotia.ca/news-events/news/2020/covid-19-and-discrimination

18. Parker, R., & Aggleton, P. (2003). HIV and AIDS-related stigma and discrimination: a conceptual framework and implications for action. Social Science & Medicine, 57(1), 13–24. Available at: https://www.sciencedirect.com/science/article/abs/pii/S0277953602003040
19. A Study to Evaluate Efficacy, Safety, and Immunogenicity of mRNA-1273 Vaccine in Adults Aged 18 Years and Older to Prevent COVID-19. ClinicalTrials.gov Identifier: NCT04470427. ModernaTX, Inc. https://clinicaltrials.gov/ct2/show/NCT04470427
20. Study to Describe the Safety, Tolerability, Immunogenicity, and Efficacy of RNA Vaccine Candidates Against COVID-19 in Healthy Individuals. ClinicalTrials.gov Identifier: NCT04368728 https://clinicaltrials.gov/ct2/show/NCT04368728?term=NCT04368728&draw=2&rank=1
21. Cocanour, C. S. (2017). Informed consent—It's more than a signature on a piece of paper. American Journal of Surgery, 214(6), 993–997. Available at: https://www.americanjournalofsurgery.com/article/S0002-9610(17)30720-1/fulltext
22. CMPA. Consent: A Guide for Canadian Physicians. Updated April 2021. Accessed Sept 2, 2021. https://www.cmpa-acpm.ca/en/advice-publications/handbooks/consent-a-guide-for-canadian-physicians
23. CMPA: Vaccination FAQs. Is the informed consent process different for the COVID-19 vaccination? What if a patient refuses to be vaccinated? Published Aug 2021. https://www.cmpa-acpm.ca/en/covid19/vaccination#question6
24. Beauchamp, T., and J. Childress. 2001. *Principles of biomedical ethics*, 5th ed. Oxford: Oxford University Press.
25. *Schloendorff v. Society of New York Hospital* (1914), 211 N.Y. 125, 105 N.E. 92; as quoted in the following website - CMPA: Informed Consent - Helping patients make informed decisions. Available to: https://www.cmpa-acpm.ca/en/education-events/good-practices/physician-patient/informed-consent?panel=properly-informing-the-patient#ref;
26. O'Driscoll, M., Ribeiro Dos Santos, G., Wang, L., Cummings, D. A. T., Azman, A. S., Paireau, J., Fontanet, A., Cauchemez, S., & Salje, H. (2021). Age-specific mortality and immunity patterns of SARS-CoV-2. Nature, 590(7844), 140–145. Avail at: https://www nature.com/articles/s41586-020-2918-0
27. Axfors, C., & Ioannidis, J. P. A. (2021). Infection fatality rate of COVID-19 in community-dwelling populations with emphasis on the elderly: An overview. MedRxiv, 2021.07.08.21260210. Available at: https://www medrxiv.org/content/10.1101/2021.07.08.21260210v1
28. Nova Scotia COVID-19 Dashboard. Report Date Sept 2, 2021 https://experience.arcgis.com/experience/204d6ed723244dfbb763ca3f913c5cad
29. Corona Virus in Israel - General Situation. Updated Sept 2, 2021. Reviewed using Google Translate: https://datadashboard health.gov.il/COVID-19/general?utm_source=go.gov.il&utm_medium=referral
30. COVID-19 in Iceland - Statistics. Updated Sept 2, 2021. https://www.covid.is/data
31. Thousands of anti-vaxxers march through London in massive 'medical freedom' demonstration against vaccine passports. Daily Mail.com. Aug 28, 2021 article by Jacob Thorburn. https://www.dailymail.co.uk/news/article-9935831/Thousands-anti-vaxxers-central-London-continue-campaign-against-Covid-vaccines.html
32. "Hands Off Our Children" Tens of Thousands Protest in Berlin Against Restrictions, Mandatory Vaccines". News Rescue Article. Aug 30, 2021. https://newsrescue.com/hands-off-our-children-tens-of-thousands-protest-in-berlin-against-restrictions-mandatory-vaccines/
33. "Greek health care workers protest against mandatory vaccines". Wavy.com. Article by Elena Becatoros, Associated Press. Aug 26, 2021. https://www.wavy.com/news/world/greek-health-care-workers-protest-against-mandatory-vaccines/
34. "Details emerge of Vaccine Choice Canada lawsuit over coronavirus response". CBC News. Article by Colin Butler. Aug 13, 2021 https://www.cbc.ca/news/health/coronavirus-charter-challenge-1.5680988
35. "Justice Center for Constitutional Freedoms - Mandatory COVID Vaccine FAQs". Published Sept 1, 2021. https://www.jccf.ca/wp-content/uploads/2021/09/Mandatory-Covid-Vaccine-FAQs-.pdf
36. "We are focused on fixing health care": PC Leader Tim Houston speaks to CTV anchor Steve Murphy about his party's platform. CTV News Article by Melanie Price and Steve Murphy. July 29, 2021. https://atlantic.ctvnews.ca/we-are-focused-on-fixing-health-care-pc-leader-tim-houston-speaks-to-ctv-anchor-steve-murphy-about-his-party-s-platform-1.5528818
37. de Figueiredo, A., Larson, H. & Reicher, S. (2021) The potential impact of vaccine passports on inclination to accept COVID-19 vaccinations in the United Kingdom: evidence from a large cross-sectional survey and modelling study. Available at: https://www.medrxiv.org/content/10.1101/2021.05.31.21258122v1.