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Open Letter

Dear Dr. Henry:

Re: Order Requiring Registration of COVID-19 Vaccination Status for BC's Healthcare Workers

We represent a group of over 600 independent healthcare professionals, pediatricians, immunologists, vaccinologists, epidemiologists, and health policy researchers from the Canadian Covid Care Alliance. We are corresponding with you on behalf of the Registrants in BC's healthcare colleges.

On June 10th, 2022, you issued an Order requiring BC's practising health professionals to declare their COVID-19 vaccine status.¹ You gave reason to believe that:

1. the continued presence of unvaccinated people in the population poses a risk to the health of the population;
2. their presence threatens the capacity of the healthcare system, and thus its ability to address the healthcare needs of British Columbians; and
3. unvaccinated Registrants put their patients/clients at risk of infection with SARS-CoV-2, which constitutes to be a health hazard under the Public Health Act.

You concluded that getting vaccinated for COVID-19 is a professional responsibility, that carries with it punishment for non-adherence.

Given its importance, and the wide scope of Registrants and their patients that it affects, we had hoped the June 10th Order would contain strong evidence supporting your rationale. However, it is unclear what information helped to inform your claims and decision, or whether the quality of that information was flawed. We feel the Order lacks many practical details and fails to provide well-referenced arguments. Instead, it contains broad generalisations akin to saying: "because I say it is so, it must be true." In our opinion, this is not how evidence-based policy should be practised, and the absence of supporting data will undermine the adoption of the Order. This order is especially egregious in light of Alberta Health Services recently rescinding vaccine mandates effective July 18, 2022 as a condition for employment for all healthcare professions, including students and new hires. Their decision was based on overwhelming evidence that COVID-19 immunizations have limited effectiveness in reducing transmission of Omicron variants of the SARS-CoV-2 virus.

The decisions in the Order do not indicate if any of the professional Colleges have been consulted. This action, at least as it appears, ignores any chance for collaborative discourse, and could leave those on the frontline guessing about what to do with unworkable legislation. Without buy-in from key stakeholders, this order will ultimately need to be put into action with raw force, which is never productive towards fostering long-term relationships that require trust and cooperation. Trust of the community is a valuable commodity in times like these and further eroding it for short-term gain should be done sparingly. It may in fact spur the exit of even more health professionals at a time when they are sorely needed. As you are well aware, almost a million people in BC do not have a family physician.²

Therefore, we ask that you rescind the Order requiring BC health professionals to disclose their COVID-19 vaccination status as was done in the province of Alberta. We also feel that mandatory COVID-19 vaccination should no longer be required for those healthcare workers that are based in BC hospitals, especially since there has been an acute shortage of nurses and other staff in BC that has precipitated the closing of emergency departments and reduced healthcare services.

Below are statements, with relevant references, regarding unvaccinated people, their infectivity compared to those vaccinated, the prevalence and durability of natural immunity, and the state of healthcare in Canada prior to 2020.

We believe that the evidence provided is sufficient, at a minimum, to significantly alter the content of the Order. Each point is listed in context to the corresponding sections of the June 10th Order document.

Thank you for taking the time to review our findings. We would be happy to meet with you in-person or virtually, to discuss in greater detail the findings documented in this letter.

Respectfully submitted by,

The Science & Medical Advisory Committee,
Canadian Covid Care Alliance

including

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Dr. Christopher Pinto, MD, Physician, Independent practice

Dr. Denis Rancourt, PhD, Interdisciplinary research scientist, epidemiologist, former Professor, Physics, University of Ottawa

Dr. Christopher A. Shaw, PhD, Professor, Dept. of Ophthalmology, University of B.C.

Epidemiology of COVID-19 (Pages 2-3, points A-J)

Point D: *“Children under the age of 5 will remain unprotected from infection until a vaccine is made available for them.”*

This statement implies that at-risk of infection equates to at-risk of severe disease. Healthy children are not at substantial risk of severe disease or death from COVID-19.³ This can be directly observed in Table 3 of the British Columbia Centre for Disease Control’s (BCCDC’s) Weekly Report ending 2nd July 2022,⁴ where those aged less than 20 years have been, and continue to be, the least at risk of hospitalization or death. For the past two and a half years, they have accounted for only 3.5% of hospitalizations, 2% of ICU admissions and 0.13% of deaths with COVID-19 (of which only one mortality in a person under 10 years of age has been attributed directly to COVID-19).

“Point D” also ignores the value of previous infection-acquired immunity—implying that it is inferior to vaccine-acquired immunity—as well as the extent to which it has already accumulated in young children. Prior exposure to SARS-CoV-2 for over two and a half years has provided a high level of natural immunity in all age groups. Data from the Canadian Immunity Task Force’s “Sero-Tracker” estimate that approximately 48% of children are seropositive for SARS-CoV-2 antibodies.⁵ This is likely an underestimate of the fraction of children who are immune against disease, since only 1 in 8 children

did not seroconvert after recovering from COVID-19 disease based on PCR testing (which can generate false-positives).⁶ Recent US data published by the US CDC demonstrate that 73.6% to 76.8% of children aged 0–11 years have been infected with SARS-CoV-2,⁷ and similar findings have been reported in other US studies.^{8,9} Likewise, SARS-CoV-2 antibody testing of unvaccinated English school pupils from early 2022, reported that 62% and 97% of primary and secondary students, respectively, were serologically positive for previous infection with the virus.¹⁰ Children have a high degree of innate immunity, which in part accounts for their low rates of severe COVID-19.¹¹

Individuals that have previously recovered from infection with SARS-CoV-1 in 2002 and 2003 were observed to have appreciable antibodies levels (~54% of peak levels) against the SARS-CoV-1 spike protein even three and a half years later.^{12,13} Following infection with MERS-CoV (the coronavirus that caused Middle East respiratory syndrome), antibody levels against this virus have also been shown to be detectable for up to 34 months in recovered patients.¹⁴ Such persistence in antibody titres for SARS-CoV-2 has been observed in recovered COVID-19 patients more than two years later in the clinical study undertaken by Kinexus Bioinformatics Corporation in Vancouver, which has over 3700 participants mainly from BC.¹⁵ These studies demonstrate unambiguously that natural immunity against SARS coronaviruses is long lasting.

Harvard Medical School Professor Martin Kulldorff, a biostatistician and epidemiologist, noted that natural immunity offers exponentially more protection than vaccines.¹⁶ One study found that vaccinated people are at least 13-times more likely to get a symptomatic COVID-19 infection than those with natural immunity.¹⁷

Point E. “Adults and children who are either particularly vulnerable to infection with SARS-CoV-2, or too young to be immunized, depend upon the people with whom they come into contact to protect them from the risk of infection.”

and

Point F. “Unvaccinated people in close contact with other people promote the transmission of SARS-CoV-2 to a greater extent than vaccinated people in the same situations, which in turn increases the number of people who develop COVID-19 and become seriously ill.”

The promise of mass vaccinations to achieve herd immunity and protect those at risk of severe COVID-19 has not manifested. Over a year ago, it was already evident from a study conducted in Dane County, Wisconsin, USA, with among the highest vaccination rates in that country at the time, that there were equally high viral loads among the vaccinated (84%) as among the unvaccinated (83%) – in other words, an equal capacity of both to spread infection.¹⁸ It is now widely accepted that COVID-19 double vaccinated individuals can still become infected with SARS-CoV-2, develop sickness and can transmit the virus with equivalent viral loads as unvaccinated individuals,^{19,20,21} including to fully vaccinated contacts.^{22,23} There is also little difference between unvaccinated and vaccinated people with respect to the duration of their illness. According to BCCDC data sourced from April 24 to May 21, 2022, over 83% of people in BC were at least double vaccinated, and accounted for 84% of all COVID-19 cases numbers in the province. Therefore, it is fallacious to suggest that there is an increased risk of viral transmission from unvaccinated individuals into the population.²⁴ It is noteworthy that the BCCDC no longer presents data on COVID-19 case numbers by vaccination status. However, Public Health

Scotland reported that between February 5 and 11, 2022, double and triple vaccinated individuals were 1.61- and 1.55-fold, respectively, more likely to acquire COVID-19 than unvaccinated individuals when expressed per capita.²⁵ Likewise, recent data from Ontario Public Health shows similar increased rates of COVID-19 cases per 100,000 amongst the double vaccinated when compared to the unvaccinated, and even higher rates of SARS-CoV-2 infection among the triple vaccinated.²⁶

Point G. “The ongoing incidence of COVID-19 and serious health consequences that result have been exacerbated over time, first by the arrival of the highly transmissible Delta variant of SARS-CoV-2, which caused significantly more rapid transmission and increased severity of illness, particularly in younger unvaccinated people than earlier variants, and by the arrival of the even more transmissible Omicron variants, the first of which caused a surge in infections, hospitalizations and deaths, and is the dominant strain of SARS-CoV-2 circulating in the province.”

Thousands of different variants of SARS-CoV-2 have been identified by whole genome sequencing as shown in the federally funded CanCOGeN Project,²⁷ but it is the variants of concern that have successively supplanted each other that have been the focus of attention. In each instance, the earlier variants have been replaced by a more infectious, but not more virulent strain. In fact, the Omicron variants have produced fewer hospitalizations and deaths per capita than the Delta variant. Despite almost an 850% increase in COVID-19 cases across Canada between the peaks of the fourth (Delta dominated) and fifth (Omicron dominated) waves, there was only a 221% increase in hospitalizations, a 29% increase in ICU admissions, and a 53% increase in deaths.²⁸ There is no *a priori* reason to believe that SARS-CoV-2 will not continue to evolve into a more benign and infectious variant based on historical data, including those for SARS-CoV-1 and MERS-CoV.

Point H. “The continuing emergence of variants, which have led to significant surges in infection and hospitalizations in British Columbia and in other jurisdictions worldwide, underlines the importance of vaccination in protecting the population and in removing the conditions which foster the development of variants which pose ever greater threats to public health.”

Again, there is no convincing and unequivocal data that the current vaccines actually reduced the incidence of COVID-19 cases in B.C. as evidenced with the six previous waves of COVID-19 and the emergence of a recent seventh wave. The influence of prior natural immunity has not been discounted in these estimates. There is also accruing data that indicate COVID-19 vaccination increases susceptibility to SARS-CoV-2 infections,^{25,26} and creates a larger pool of infected individuals that could drive the propagation of new mutants, which might be more resistant to limited vaccine-induced protection.

Point I. “The emergence of the Omicron variants has introduced further uncertainty into the course of the pandemic.”

Unfortunately, this implies that there was certainty during the pandemic prior to the emergence of Omicron. If that was true, the pandemic would have unfolded deterministically, and policy makers could have predicted its course accurately; and there would be no need for data to inform policies beyond using it to confirm what had been intuitively reasoned. Uncertainty, counterintuitive behaviour, and an inability to control an infectious respiratory pathogen are the norms of complex nonlinear systems, not the exception.²⁹

Point J. “Caution requires me to recognize the critical importance of vaccination’s continuing role in protecting the health of the population and the functioning of the health care system, and permitting the functioning of society, without the need for widespread measures.”

It is becoming increasingly clear that widespread vaccination has its inherent risks of injury, especially to those that are already at low risks of severe COVID-19. While a case might possibly be made for vaccination of those at highest risk such as the very elderly and those with multiple comorbidities, the potential injuries such as myocarditis (1 in 5000 in males under 24 years with the second shot of an RNA vaccine),³⁰ Guillain-Barré syndrome (1 in 3100),³¹ menstrual issues in over 40% of reproductive-aged women^{32,33} and hundreds of other diseases documented in the literature from even the vaccine manufacturers,³⁴ calls into question the vaccination of the young and the general population.

It is notable that, in its 30-year history, the USA FDA Adverse Event Reporting System (VAERS) has recorded more cases of severe injury and deaths associated with three COVID-19 vaccines than from any other vaccines. It should be appreciated that most VAERS reports are made by doctors and other health professionals, and the system is closely monitored for the quality of the reports. More than 55% of all serious adverse effects and deaths ever reported in VAERS are associated with the COVID-19 vaccines. As of July 22, 2022, primarily from US data, there have been 1,357,937 adverse events linked with the COVID-19 vaccines and 29,790 deaths.³⁵ Examination of the WHO Vigiaccess database for vaccine adverse event reports revealed a total of 286,069 for all influenza vaccines over 5 decades since 1968, but 4,002,925 for the COVID-19 vaccines since 2021.³⁶

Vaccine Importance & Effectiveness (Pages 3-4, points K-R)

Point K. “Vaccination is safe, highly effective, and the single most important preventive measure a person can take to protect themselves, their families, and other persons with whom they come into contact from infection, severe illness and possible death from COVID-19.... with illness being mostly milder in vaccinated people who become infected than in unvaccinated people.”

These statements ignore the wide extent and effectiveness of natural immunity in the BC population. With extensive natural immunity, there is no way of assessing how much of the reduced morbidity and mortality from COVID-19 is attributable to the vaccines. Comparisons between rates of hospitalization, ICU admissions and deaths between the unvaccinated and vaccinated have been clouded by definitions of what constitutes being vaccinated, when such comparisons have been made. Frankly, in recent times with Omicron variants, there is little difference between these groups, and the BCCDC has not shown data for those over 70 years of age that are unvaccinated with respect to deaths from COVID-19 for several months now. It is known that while the unvaccinated accounted for 13% to 14% of the BC population, they accounted for only 7% to 9% of COVID-19 deaths during the same time period in 2022.²⁴ Moreover, the BCCDC data confirms that the majority of deaths associated with COVID-19 were with SARS-CoV-2 infections, but not from them, as they were due to other diseases or injuries.⁴

In consideration of all the epidemiology studies that bench mark the risk reduction of acquisition of COVID-19 with the vaccines relative to “unvaccinated” individuals, irrespective of whether such comparisons are made in the clinical trials or the post-approval release of these vaccines, the following are significant issues that should be appreciated:

- a. A higher testing bias by PCR or rapid antigen testing of unvaccinated people occurs, especially since the adoption of vaccine passports, where workplace testing is usually focused or even restricted to those that are unvaccinated;
- b. Very frail and elderly people, who are also at greatest risk of requiring hospitalization due to their fragile condition, are often not vaccinated for fear of vaccine-induced injury from mounting too strong or focused immune responses;
- c. The definition of unvaccinated in BC includes those that are actually vaccinated and develop COVID-19 within 3-weeks after their first vaccination. One of the reasons why the aggregation of COVID-19 cases in people that were vaccinated within 3 weeks with the unvaccinated is very problematic is apparent from the analyses of epidemiology data provided by an Alberta Health website.³⁷ On-line data in tabular and graphic forms were provided between the occurrence of COVID-19 in vaccinated individuals as a function of time following vaccination between August 11, 2021 and January 11, 2022. It was evident that there was a dramatic rise in COVID-19 cases in the first 7 days post-inoculation. After about 9 days, the number of COVID-19 cases declined as antibodies were produced by immune B cells and immune T cells became activated. Vaccination actually increased the chances of getting COVID-19 during the initial period in these analyses. For this reason, vaccination concurrent with waves of COVID-19 cases is ill-advised;
- d. The over-reporting of hospital cases, ICU admissions and deaths of individuals with COVID-19 as having the disease under circumstances where the original hospitalizations were due to other reasons independent of having a SARS-CoV-2 infection, *i.e.*, the individuals had an existing comorbidity or death from other causes, but happened to test positive for SARS-CoV-2 at the time of admission or during their stay in hospital.⁴ This number appears to be around 46% of all COVID-19 hospital cases in Ontario as of January 1, 2022;³⁸
- e. Many of the “vaccinated” and “unvaccinated” cases already have immunity from natural infection with SARS-CoV-2, and this is especially evident in children, many of which were asymptomatic for COVID-19; and
- f. There appears to be many instances where individuals that require medical attention, such as transplantations, are being rejected by paramedics, hospitals and clinics if the patients are not vaccinated for COVID-19. Such individuals are likely to have their medical condition exacerbated, which could place them at higher risk of severe COVID-19 should they become infected.

Point M. “Communities with low vaccination rates have experienced rapid spread of SARS-CoV-2, causing serious illness and increases in hospitalizations and ICU admissions, primarily in unvaccinated people.”

Urban communities experienced much earlier spread of COVID-19 due to their higher population density, and consequently acquired natural immunity sooner than more rural communities. The slightly higher COVID-19 rates in communities with lower vaccination is likely because they tend to be more rural. Careful studies of COVID-19 vaccination status with COVID-19 incidence in 68 countries and 2947 counties within the US have shown no positive linkage for reduced COVID-19 cases with increased vaccination rates.³⁹ Those jurisdictions with higher vaccination rates actually had slightly higher COVID-19 incidence.

Point N. *“Unvaccinated people have been at greater risk than vaccinated people of being infected with some variants of SARS-CoV-2, and those who have been infected have experienced significantly higher rates of hospitalization, ICU-level care and invasive mechanical ventilation, complications and death when compared with vaccinated people.”*

This statement is based on data that encompasses a period from the start of available vaccinations, which included the second and third waves of COVID-19, but during which time less than 15% of the BC population was double vaccinated. The rates of COVID-19 cases, hospitalization, ICU admissions and deaths subsequently declined until the onset of the fourth wave in late August, 2021. During the recent Omicron period, especially with the BA2.4 and BA2.5 variants dominating, there are no major differences in these measures between the vaccinated or unvaccinated when adjusted per capita.²⁴

Point O. *“People who are vaccinated can be infected with SARS-CoV-2, but experience less severity of illness than unvaccinated people, especially in younger populations.”*

There is no evidence that supports this assumption. The occurrence and effectiveness of natural immunity was not assessed as a factor in studies of COVID-19 severity. In fact, younger people tend to be more asymptomatic following SARS-CoV-2 infection.¹⁰

Point P. *“... [U]nvaccinated people are more prone to carry SARS-CoV-2 compared with vaccinated people, can be infectious for a longer period, clear the infection more slowly, and are more likely to have symptoms which spread virus than a vaccinated person. The result is that an unvaccinated person is more likely to become infected than a vaccinated person and is more likely to transmit SARS-CoV-2 than a vaccinated person.”*

This statement claims that vaccinated individuals recover from COVID-19 sooner than unvaccinated individuals, and thus are infectious for a shorter period. However, a US CDC report using a post-marketing release of the Pfizer/BioNTech vaccine found that vaccinated participants with Omicron infection spent an average of one-half day less sick in bed than unvaccinated participants.⁴⁰

There is other evidence to suggest that vaccinated people can shed comparable numbers of infectious viral particles,¹⁸ over timelines that are as equally long, and in some cases, longer when considering confidence intervals and the type of testing used to detect SARS-CoV-2.⁴¹ See also references 18-20.

Point Q. *“Vaccinated people who are infected with SARS-CoV-2 have been shown to have high levels of protection against severe illness, appear to have a reduced risk of the long-term effects of COVID-19, experience shorter infectious and symptomatic periods and recover from COVID-19 faster than similarly situated unvaccinated people, which, in turn, reduces the risk of transmission to their close contacts and co-workers and minimizes the disruption caused by absenteeism, all of which supports the continued provision of essential services in particular, and the orderly functioning of society as a whole.”*

Based on these equivocal assumptions stated earlier and repeated again in this point, which ignores natural immunity, it is assumed that unvaccinated people will experience COVID-19 longer and therefore be away from their work place longer. This is said to reduce the availability of employees and the continued provision of essential services. However, the imposition of mandatory vaccination

has caused the losses of at least 2500 health care worker jobs already in BC,⁴² with many begrudgingly getting vaccinated twice just to retain their employment. Those in the community that are the most likely to have existing natural immunity to COVID-19, include the healthcare workers who were hailed in 2020 for their sacrifice and commitment to provide medical attention during the first two waves of the COVID-19 pandemic. Their dismissal from the healthcare work force not only jeopardizes the provision of healthcare services by further burdening those remaining that have capitulated to vaccination, but it removes those that are less likely to get COVID-19 due to their natural immunity.

Natural Immunity & Testing (Pages 4-5, points S-W)

Point S. "While people who have contracted SARS-CoV-2 may develop some natural immunity for a period of time following infection, the strength and duration of that immunity varies depending on a multitude of factors, including age, co-occurring medical conditions, medications being taken, which variant they were infected with, severity of infection and time since infection."

This fails to acknowledge the actual longer duration of natural immunity, its broader coverage of SARS-CoV-2 proteins, and the appropriateness of the types of antibodies generated for a respiratory virus when compared to antibodies generated from COVID-19 vaccines that selectively target the spike protein of the SARS-CoV-2 virus. As pointed out, the strength and duration of natural immunity can depend on a multitude of factors, but an even greater number of factors also influence the effectiveness of vaccine-induced immunity.

Point T. "The risk of reinfection and hospitalisation is significantly higher in people who remain unvaccinated after contracting SARS-CoV-2 than in those who are vaccinated post-infection."

This statement is unsupported by data. One large study showed that the risk of hospitalisation was equally low amongst previously infected, unvaccinated people as those vaccinated with a previous COVID-19 diagnosis.⁴³ Moreover, another study with the Moderna RNA vaccines found that 97% of unvaccinated individuals who subsequently acquired COVID-19 generated antibodies against the nucleocapsid protein of SARS-CoV-2, whereas only 40% of double vaccinated individuals that got COVID-19 did.⁴⁴ This indicated that vaccination might actually blunt subsequent immune responses, which is likely to include new variants of SARS-CoV-2.

Point W. "I have considered and continue to consider, based on the currently available generally accepted scientific evidence, whether other measures such as natural immunity, PCR testing or rapid antigen testing, are as effective as vaccination in reducing the risk of transmission of SARS-Co-2, and or the severity of illness if infected."

Natural immunity is best assessed with serological tests that evaluate antibody or T cell levels. Due to the high rate of false positives with the PCR test, and false-negatives with the rapid antigen assays, tests that monitor antibody levels remain the most readily performed and cost effective means of quantifying the likely immunity that an individual may possess against future SARS-CoV-2 infections. The advantage of this approach is that it only has to be performed with intervals of several months. Many studies have shown that the natural immunity to SARS-CoV-2 and related coronaviruses can last for over two years.

Impacts on Public Health & Healthcare Systems (Pages 5-6, points X-DD)

Point X. “If it were not for the high level of vaccination in the Province, British Columbia would be in a far more challenging situation than it is currently, but the increasing levels of transmissibility of the most recent variants means that high vaccination rates are required to mitigate transmission, reduce case numbers and serious outcomes, and reduce the burden on the healthcare system, particularly hospital and intensive care admissions.”

“Point X” begins with a counterfactual statement that has no way of being verified, and only seeks to exaggerate the severity of the pandemic. No one has a real idea of how challenging it would have been. Besides, this contention is not compatible with the observation from Our World in Data, that the rate of infection, hospitalization and death attributable to COVID-19 is lower in countries with much lower vaccination rates, such as in Africa. Moreover, in other countries, the harms of the COVID-19 vaccines are becoming well recognized and acknowledged by health authorities. For example, the German Federation of Hospitals has called for a revoking of the vaccination obligation for healthcare personnel after the German Ministry of Health admitted that 1 in 5000 COVID-19 shots leads to serious side-effects.⁴⁵

Point Y. “...those who have become ill with COVID-19, who can be quite ill, require high levels of care and be hospitalized for long periods of time, which situation is exacerbated by the care needs of unvaccinated people who comprise a substantial proportion of those who require hospitalization and ICU admission.”

In terms of absolute numbers, over 82% of COVID-19 cases, 84% of hospitalizations, 80% of ICU admissions and 89% of deaths have occurred in double and triple vaccinated individuals in BC according to BCCDC data from May 15 to July 9, 2022.²⁴ In fact, the unvaccinated represent a small proportion of those with severe COVID-19, and there is no compelling reason to believe that their vaccination will significantly alter the overall burden on the BC health care system.

Let’s assume, without clear evidence, that higher vaccination levels may reduce some short-term healthcare pressures: fewer infected people, in key demographics, resulting in smaller numbers of severely ill people. Even with that unproven assumption, the Order runs-the-risk of decreased patient care from staffing shortages from the loss of healthcare workers. This Order will guarantee decreased healthcare capacity, something of which, the public is becoming more aware.

COVID-19 has created an acute issue out of a chronic and progressive problem in Canadian healthcare.⁴⁶ The rationale in the Order ignores any historical trends demonstrating that threats to healthcare (such as increased depletion of ICU resources) have existed since at least 2007⁴⁷, and are only expected to continue as Canada’s population ages. According to physicians in BC, the state of the primary care infrastructure has been at a breaking point for some time.⁴⁸ The Order is pushing it closer to that breaking point.

It is critical that the BC Public Health Office maintains its credibility by providing factual information that is backed up by evidential scientific data. When public health policy is based on premises that are

not supported by such data, it will produce more harms to our society than from the COVID-19 disease itself.

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