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The Age of COVID-19: Fear, Loathing, and the "New Normal" [1]

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ABSTRACT

In this article, I give some of the history of COVID-19, and review some of the unanswered questions about what is being represented as an extraordinary "pandemic". Foremost among them is whether those "fashioning the narrative", to borrow a phrase from the Stanford mathematician Richard Moore, also had a hand in fashioning the "pandemic" itself. I also introduce the articles in the rest of this issue that follow my own.

Keywords: *contact tracing, flatten the curve, mask efficacy, PCR, polymerase chain reaction tests, shape the narrative, social distancing, social shaming, specific new powers, virtue signaling*

Who defined the crisis and its orthodox meaning?
Those who fashion the narrative.
Why did they choose that meaning?
So the government could claim the right to specific new powers.
Where will this lead?
To the exercise of those new powers.
(Moore 2020)

Introduction to Issue 2 of the *IJVTPR*

This is the second issue of *IJVTPR* where we explore various issues arising from the COVID-19 pandemic from various angles. I take on the problem of providing some recent history, confused as it has been, to set the stage for the fear, loathing, and all the other aspects that make up this "new normal". In our call for papers about COVID-19, the Children's Health Defense Team stepped up to address the *cui bono* question. After that paper (the second in this issue) was peer reviewed and

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accepted for publication in *IJVTPR*, in order for it to reach a broader audience, with written permission from *IJVTPR*, it appeared in *The Defender* on December 14, 2020. That CHD article, which directly follows mine in this issue of *IJVTPR*, recounts the largest transfer of wealth in the history of the world: trillions of dollars were taken from a multitude of middle class citizens and transferred to a tiny cabal of elite power brokers during this unprecedented time.

In the third paper, John W. Oller, Jr. deals with so-called "gain of function" or "dual use" (bioweapons) research leading up to where we are now with COVID-19.

The fourth paper by James Lyons-Weiler discusses the way out-of-balance high cost of false positive COVID diagnoses.

The fifth paper by Russell Blaylock sorts out some of the likely sources of damage from inflammation owed to SARS-CoV-2. His thinking about the cytokine storm and its role in causing, in the most severe cases, dysregulation of the immune defenses leading to catastrophic systems failure and death, is a natural set up for his own suggestions about ways to reduce pathological damage, and for the theoretical thinking of the sixth paper in this issue by Robert M. Davidson and Timothy Winey.

In the sixth entry, Davidson and Winey present some hopeful results of research with L-ascorbic acid and its ubiquitous positive impact on biosignaling systems. Their detailed analysis and review presents L-ascorbic acid (Vitamin C) as doing in living chemistry more or less what oil does in an automotive engine. They suggest that it must aid in rescuing cells from SARS-CoV-2 just as it does from viruses in general.

Then, in the seventh paper in this issue, James Lyons-Weiler proposes "Plan B" for oversight in the public health domain to replace the failed "Plan A" that has led to an out-of-control plutocracy stuffing itself with additional wealth and power while it robs everyone else of the very things, as the regulatory arm of government, it was supposed to preserve and protect on behalf of the people.

The eighth entry of this issue is an amended version of Sin Han Lee's paper: "Toll-like receptor 9 agonists in HPV vaccine Gardasil9" from the first issue of the journal (Lee 2020). It is re-published here with two substantive corrections. Because of the importance of Lee's article to the ongoing lawsuit, *Balasco v. Merck* (2020; also see Baum Hedlund Aristei & Goldman 2020; Hendler 2020), to make certain that the details are right, rather than publish a list of the two errata in that paper, we have re-published the whole of it with changes marked in purple and footnoted by us. In the original setup of that paper, on p. 82 the following line was omitted: "(5/6) were those of HPV 18 and one (1/6) was that of HPV 11 (synthetic)" and on p. 92 "3-60 μm" should have been "3-60 nm". Those content errata are corrected in the version of that paper that appears here and it is republished in its entirety. Corrections are footnoted and are colored in purple.

The ninth and final entry, a very personal statement by John Oller, deals with a patent application that has been referred to frequently in blogposts and in the news as manifesting "The Mark of the Beast" (Grapevine News 2020) — a surveillance system for Microsoft's "cryptocurrency" invention. Its purpose is to enable the elite plutocrats profiting from the still malingering crisis (see the entry by the Children's Health Defense Team immediately following mine in this issue of the *IJVTPR*), to control on a global scale the power of individuals to buy and sell contingent upon the most intimate

details of their bodily actions and mental states as recorded by networks of computers, telecommunications systems, servers, cell phones, tablets, laptops, smart devices (watches and televisions), and "other embodiments", but "not limited" to such computational devices, as will be understood, in the words of the patent holders, by "those skilled in the art to practice the invention" (see Abramson et al. 2020, p. 3, where lines 23 and 24 contain the quoted phrases). Among the "other embodiments" mentioned in the relevant research literature are "quantum dots" emitting infrared signals that were used to track vaccinations injected in a "dye" in one of the studies sponsored by the Bill & Melinda Gates Foundation (McHugh et al. 2019). In an interview by telephone on June 3, 2020, Bill Gates is reported to have said, "I've never been involved [*sic* in] any sort of microchip-type thing" (Brown and Weise 2020). Right. He says this in spite of the fact that the "quantum dots" injected beneath the skin with a vaccine (Trafton 2019) are among the latest computational devices experimented with by MIT researchers in work sponsored by the Bill & Melinda Gates Foundation (McHugh et al. 2019). This particular "embodiment" of a surveillance system is "delivered under the skin at the same time as the vaccine" (Trafton 2019).

Revisiting the Early Days of the COVID-19 "Pandemic"

By now, we've all heard words and phrases about COVID-19 repeated endlessly — words and phrases most of us never want to hear again. Among them is the word *unprecedented* to describe the emerging pandemic; *social distancing*, the notion that you can protect yourself and others by keeping a 2-meter distance from them; *social shaming* and *virtue signaling* indicating the opprobrium that those who don't obey guidelines for social distancing and masks often face from those who do; *flatten the curve*, a concept originally intended to convey the danger of flooding hospitals with too many sick people to handle. There are others.

To understand such additions to the world's lexicon, let's go back to the beginning. The WHO announced "COVID-19" — the name of a new disease attributed to the Corona family of viruses on 11 February 2020 using guidelines previously developed by the World Organization for Animal Health (OIE) and the Food and Agriculture Organization — both of these being subagencies of the United Nations (World Health Organization 2020; https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(covid-2019)-and-the-virus-that-causes-it). The virus itself was formally dubbed "severe acute respiratory syndrome coronavirus 2", or SARS-CoV-2.

Informally, the name was "Corona virus disease 19", which was soon shortened to "COVID-19". It is closely related to the coronavirus that gave rise to "sudden acute respiratory syndrome" (SARS; Centers for Disease Control and Prevention 2017) in 2003. COVID-19 thus became the newest named member of the coronavirus family (International Committee on Taxonomy of Viruses 2020) — the viruses, incidentally, credited with a large fraction of what we consider to be the common cold (Anon 2020b). Other coronaviruses can be fatal to humans, e.g. "Middle East respiratory syndrome" (MERS; Centers for Disease Control and Prevention 2019f) and, of course, SARS. The COVID-19 virus pandemic, so declared by the WHO on March 11, 2020 (Ducharme 2020), came into being just as the book, from which this article is excerpted (Shaw 2021), was entering a rewrite phase. COVID-19 was not in the original book outline, but events overtook the book just as they upset the world. What we thought we knew about the disease in the early days consisted of scraps of information filtered through the Chinese government and various international media, notably,

backed up by the WHO — see the timeline as reported by the World Health Organization 2020 beginning January 10, 2019 and still being updated daily ever since.

The Web of Science reports 58,635 peer-reviewed papers using the term "COVID-19" published since the beginning of the current "pandemic" and Google Scholar reports about 234,000 articles for a similar search as of the same date (December 15, 2020). Prior to the March 11, 2020 announcement, the WHO Director-General, Tedros Adhanom Ghebreyesus, referred to the looming crisis as "a public health emergency of international concern". He kept his distance, however, even at that late date, from the term "pandemic" (Ducharme 2020).

Naturally Formed or Deliberately Manufactured?

The official story then and now was that COVID-19 is a zoonotic coronavirus that jumped to humans from either bats or pangolins, or both, beginning in a "wet market" selling live animals or their carcasses in Wuhan, China (Anon 2020h). Was it merely a coincidence that the nearby Wuhan Institute of Virology, the first Bio-Safety Level 4 (BSL-4) laboratory of China opened officially in 2018 (Bo 2018) and was experimenting with more coronaviruses than any other laboratory in the world (Anon 2020h)? In 2017, David Cyranoski wrote in the prestigious bioscience journal *Nature* about "concerns" of "scientists outside of China" who worried about the possibility of "pathogens escaping" from the first of the five to seven Chinese BSL-4 labs set to study "the world's most dangerous pathogens". After SARS-CoV-2 had already set off alarms all over the world, the Editor-in-Chief of *Nature* added the following note at the top of Cyranoski's paper:

> **Editors' note, January 2020:** Many stories have promoted an unverified theory that the Wuhan lab discussed in this article played a role in the coronavirus outbreak that began in December 2019. *Nature* knows of no evidence that this is true; scientists believe the most likely source of the coronavirus to be an animal market.

Was it merely another curious coincidence that the Chinese scientists at the BSL-4 laboratory in Wuhan were deeply involved in what is called "gain of function" (GOF) research? That is, in research aiming to alter the genes of viruses to make them more deadly as potential biological weapons (see Oller's article in this issue). Was it also a mere coincidence that many such studies have been paid for by the National Institute of Allergy and Infectious Diseases headed by Dr. Anthony Fauci (Nabel and Fauci 2010; Fauci 2012; Erbelding et al. 2018; Breggin and Breggin 2020; Guterl 2020; Mascola and Fauci 2020; Sellin 2020)? Also, was it just a coincidence that Fauci was involved in funding collaborations between the Wuhan researchers and two US universities, notably the University of North Carolina at Chapel Hill (Menachery et al. 2015, 2016, 2017, 2019; Anthony et al. 2017) and the University of Texas Medical Branch (UTMB) at Galveston Texas (see Breggin and Breggin 2020 and references there), as well as the EcoHealth Alliance based in New York (Sellin 2020; Yan et al. 2020b)?

Even more curious coincidences seemed to be lurking in the background as well: On July 5, 2019, a husband and wife team, Dr. Xiangguo Qiu, her husband Keding Cheng "and an unknown number of her students from China were removed from Canada's only level-4 lab" (Pauls 2019) by the Canadian federal police, the Royal Canadian Mounted Police for reasons that were never fully disclosed. Both Qiu and Cheng, had long-established ties to the Wuhan Institute of Virology.

A Picture-Perfect Simulation Just 53 Days Before the First COVID-19 Death

All of the foregoing background makes events of 2020 seem increasingly dodgier. It gets better, or worse, depending on one's perspective. On October 18, 2019, Johns Hopkins University's Bloomberg School of Public Health, Center for Health Security, hosted a 2-day tabletop simulation exercise about a pandemic that closes down most of the world. This exercise, called *Event 201*, was in large part paid for by the World Economic Forum and the Bill & Melinda Gates Foundation (Open Philanthropy Project 2019).

There were 15 main participants drawn from business, medical, pharmaceutical, and governmental organizations. Of the 15, five stand out: Dr. Chris Elias from the Bill & Melinda Gates Foundation, Prof. George F. Gao, the Director General for the Chinese Centers for Disease Control, Stephen C. Redd from the U.S CDC, and Adriane Thomas, Vice President Global Health from Johnson and Johnson, one of the world's giant pharmaceutical companies. And then there is the fifth party consisting of the central bankers, ubiquitous by their absence, and yet like the proverbial elephant in the boardroom as noted by Catherine Austin Fitts (see her interview with Greg Hunter 2020 at https://robinwestenra.blogspot.com/2020/12/catherine-austin-fitts-on-great-reset.html). These five, based on their credentials and influence, seem to be the main players. As for the other 10, it is not clear why they were there at all. Maybe they are bankers, or were chosen at random to fill empty chairs (https://www.centerforhealthsecurity.org/event201/players/)?

On January 23, 2020, in the face of growing numbers of victims in Wuhan and elsewhere in Hubei province, the Chinese government did a hard lockdown of the city and province (Anon 2020c). The official death tally in China was reported by CNN on that date as 25 with an estimated 800 persons infected in Wuhan, a city of 11 million. A little less than four months later, on Wednesday, April 6, 2020, the pandemic in China was officially declared to be over (Zhong and Wang 2020), but not before it had spread around the world by Chinese and other international travelers from Hubei province, very much as in the *Event 201* scenario.

Now it was the rest of the world that went into escalating reports of infection, followed by various levels of lockdown, and "state of exception" decrees. At the time of this writing, as I get close to finishing my book, most countries are experiencing a "second wave" of infections. Whether these are real or not will be addressed below. In the meantime, in this article I address a number of things we don't fully know, although more reports appear daily, albeit many of them preliminary, speculative, or already known to be just plain wrong.

Unanswered Questions Remain

In this essay, I will try to fill in some of the answers to questions such as: Where and how did COVID-19 really originate, particularly was it a natural virus or one modified by researchers as a gain of function (GOF) manipulation? What is the actual pathophysiology of the disease, including impacts on the CNS? What are the age, sex, national and ethnic demographics of COVID-19 infection? What are the real numbers, a question that ties directly to the question of ways to test for the virus and/or the surrogate markers of prior infection? How many really died in China versus the US? And why have COVID-19 deaths not had a major impact on refugees in various camps? How effective were and are measures taken by various medical authorities, e.g., masks, social distancing,

lockdowns, etc.? In the following sections, I will take these on one at a time where answers are known.

The Origins of COVID-19

A number of studies have suggested that COVID-19 arose as a zoonotic virus that jumped from other species to humans first in the animal "wet" market in Wuhan (Andersen et al. 2020; Lam et al. 2020; Zhang, Wu, and Zhang 2020). This remains the dominant narrative. Various more recent studies, however, cast doubt on the natural zoonotic origins view. Among them is the work of Zhan et al. featured in an article by Rowan Jacobsen in early September 2020 entitled *Could COVID-19 have escaped from a lab?* (Jacobsen 2020; https://www.bostonmagazine.com/news/2020/09/09/alina-chan-broad-institute-coronavirus/). The Zhan paper titled , "SARS-CoV-2 is well adapted for humans. What does this mean for re-emergence?" (Zhan, Deverman, and Chan 2020; see the version posted May 2, 2020. at https://doi.org/10.1101/2020.05.01.073262doi: bioRxiv preprint) notes some oddities about what the authors term "evolutionary dynamics". The article has not apparently been peer-reviewed so this is an obvious concern for credibility, but the authors certainly have the credentials for their work to be taken seriously, at least once some of the panic about COVID-19 wears off: First author S. H. Zhan was at the Department of Zoology and Biodiversity Research Centre at my own university (UBC) before moving over to a company called Fusion Genomics Corp.; second author B. E. Deverman is a professor at the Stanley Center for Psychiatric Research, Broad Institute of MIT and Harvard. The senior author is Y. A. Chan, formerly a Ph.D student also at UBC and now a postdoctoral fellow at the Broad Institute with Deverman.

In the abstract, the authors write:

> In a side-by-side comparison of evolutionary dynamics between the 2019/2020 SARS-CoV-2 and the 2003 SARS-CoV, we were surprised to find that SARS-CoV-2 resembles SARS-CoV in the late phase of the 2003 epidemic after SARS-CoV had developed several advantageous adaptations for human transmission. Our observations suggest that by the time SARS-CoV-2 was first detected in late 2019, it was already pre-adapted to human transmission to an extent similar to late epidemic SARS-CoV. However, no precursors or branches of evolution stemming from a less human-adapted SARS-CoV-2-like virus have been detected. (Zhan et al. 2020)

In other words, COVID-19 showed up in the human population already too well adapted to humans to be a virus that had recently jumped from some other species. Further, there seemed to be no earlier variants which would be typical of the new virus. The authors suggest several ways this might have occurred. While they don't dwell on it and indeed are very cautious in how they interpret their data, one of these ways might be if COVID-19 were deliberately engineered as part of a GOF study, perhaps at the BSL-4 facility at the Wuhan Institute of Virology.

Jacobsen (2020) explores all of this. He opens his discussion with the following:

> The world's preeminent scientists say a theory from the Broad Institute's Alina Chan is too wild to be believed. But when the theory is about the possibility of COVID being man-made, is this science or censorship?

It's a good question. Jacobsen considers the often hostile responses that the Zhan paper received and how Chan as senior author handled it. Unsurprisingly, given the orthodoxy in vaccine research, the possibility that COVID-19 arose in a laboratory clashes with the story that many scientists and much of the media prefer to believe and repeat. But which narrative is correct? Both cannot be correct because they contradict each other. If the virus was created in a BSL-4 laboratory it was not

a natural zoonotic occurrence that leaped from bats to pangolins to man, or by any other natural pathway.

The zoonotic narrative, however, keeps changing. Denmark was soon reporting that COVID-19 jumped from humans to farmed mink and expressed fear that it might jump back again to humans (Hart 2020; Kevany 2020), perhaps a not trivial concern. Chan and her colleagues are following this story and await the latest developments. What is sure, however, is that the pangolin origin study is simply not correct: no COVID-19 precursors have been found in that species (Chan personal communication; also see Latham and Wilson 2020b; Segreto 2020; Segreto and Deigin 2020; Yan et al. 2020).

It is worth considering that GOF research is nothing new and has gone on for the better part of 100 years in the US and increasingly in other countries that compete with the US for world dominance, China being only one such. The stunning illogic of GOF research to create more pathogenic viruses in order to protect against them is discussed by Oller in this issue. As he notes, such research is the logical equivalent to the fire department of a major city setting large parts of the city alight in order to prepare for a potential conflagration. Rather than actually being protective, such a research program virtually assures that the deliberately constructed GOF virus will find its way into the human population either by accidental release or by a deliberate action by "bad players" — as anticipated in the *Event 201* simulation at Johns Hopkins University.

Pathophysiology of COVID-19 by the Organ Systems Impacted

For the discussion in this section, I rely heavily on Mokhtari et al. 2020, "COVID-19 and multi-organ failure: A narrative review on potential mechanisms", published in the *Journal of Molecular Histology*, *51*(6), 613–628 (https://doi.org/10.1007/s10735-020-09915-3).

Respiratory

When the victims of COVID-19 first started to fall ill, first in Wuhan, and then in the West, the initial medical response was aimed at the most obvious symptoms, that is primarily those of the respiratory system. For many people these symptoms were at about the level of a common cold or even yearly influenza: cough, sore throat, fever and so on. In some of those affected, primarily the elderly and those with significant comorbid respiratory and cardiovascular conditions, their condition rapidly progressed to acute respiratory distress syndrome, ARDS. This was similar to other acute deadly coronavirus infections of the past: Middle East Respiratory Syndrome (MERS; Centers for Disease Control and Prevention 2019f) and Severe Acute Respiratory Syndrome (SARS; Centers for Disease Control and Prevention 2017). In each case, the virus' "spike protein" seemed to attach primarily to epithelial cells in various part of the respiratory system as well as epithelial cells on veins and arteries of the respiratory system at a receptor binding site termed ACE-2 (angiotensin converting enzyme 2). In turn the infection triggered severe inflammatory responses and cell death leading to fluid build up in the lungs. Moreover, the infection often provoked what was termed a "cytokine storm" in which the immune system overreacted and released inflammatory cytokines such as IL-6, TNF-α, and others that actually damaged lung alveoli cells (Miller and Blaylock 2017; especially the introduction by Blaylock). The result was often lung failure leading to multi-system organ failure followed by death in severe cases.

The initial response was to place severely ill patients on respirators, a response we now realize often did more harm than good.

Cardiovascular

Work coming out of Italy made it clear that the infection was not confined to the respiratory system, but also involved the cardiovascular and other systems. Once again, the ACE-2 receptor seems to have been a molecular target for the virus, inducing direct cell death on its own, as well as indirect cell death by inciting a cytokine riot in the lungs. A key vascular feature in some of the affected persons was a coagulopathy, defined as an abnormal blood flow with either excessive bleeding *or* clotting.

Renal and Liver Infection

Significant negative impacts of COVID-19 viruses have also been reported on both the kidneys and liver, once again through ACE-2 receptors. However, it should also be clear that even without direct infection, serious impacts on respiratory and cardiovascular function will in turn damage both other organs.

Nervous System Effects

A surprising feature that began to emerge in some patients seemed to involve the nervous system, where initial phases of the disease seemed to be associated with the loss of smell or taste, headache, and dizziness as features of early phase infections. Other consequences can include stroke, multiple sclerosis, Guillain-Barré, and encephalitis (Montanari and Gatti 2016; Wang et al. 2016). COVID-19 can impact different parts of the nervous system, including the CNS, the peripheral nervous system, and the musculoskeletal system. Overall, 3.46% of patients with COVID-19 infection were found in one Chinese study to have CNS outcomes — 24.8% of those with overall nervous system involvement (Sheraton et al. 2020). Sometimes such deficits seemed to remain after other symptoms had abated, including cognitive dysfunctions.

The nervous system outcomes have not to date been as extensively investigated as those for other organ systems as cited above but it seems clear that there are multiple pathways by which the virus can access the nervous system, including through the olfactory epithelium (Baig et al. 2020; Bilinska et al. 2020) and by transport along the vagus nerve from the GI system (Pereira 2020). This latter is perhaps particularly concerning given the emerging speculation that the origin of Parkinson's disease involves the same route from the GI system, up the vagus nerve and into the brain (Visanji et al. 2013; Ubeda-Bañon et al. 2014; Braak and Del Tredici 2017). Such features may be taken to indicate the serious potential for triggering longer term progressive neurological disorders (Wilson and Jack 2020) through a range of mechanisms, including inflammatory processes triggered by binding to ACE-2 receptors, direct impacts on astrocytes and microglia and the cytokine storm (Sultana and Ananthapur 2020).

How Severe Is COVID-19?

The above will serve to make clear that COVID-19 infection can be extremely severe in some individuals and can lead to death and may have longer term impacts insofar as the nervous system may be permanently damaged. It should not therefore be assumed that the disease is trivial for all people in its manifestations. However, there are still fundamental questions which remain to which there are, at this time, no conclusive answers. These include the following: What is the percentage of the population affected by the virus; how do age, sex, ethnicity/race impact infection by the virus; how severe is it overall for most people?

Percentage of the population affected

A now dated early summary of the number of infected was provided by reporter Ben Swann of Truth in Media (2020; at https://www.youtube.com/watch?v=ohO8eAwi_po&feature=share&fbclid=IwAR0KWh1GbnJrt_908uYrXnLGPozOV26xBSyAWX6Ij4Ys5k0gMyd-qapl0_Q). Basically, Swann takes the WHO's own COVID-19 case numbers and shows how they were manipulating data claiming a deadly pandemic many times worse than seasonal flu — .1% as against 3.4% for a death threat from SARS-CoV-2 34 times greater than from seasonal flu. In doing so they created a level of panic in society that has rarely been seen in peacetime. As Swann noted, the implications for the economy of the world were already daunting and have only become more so as I write these words today. And that was only the first "wave" of the disease. At this writing, most of the world, less China, seems to be fully into the second wave, in some countries already a third wave.

Part of the panic that the WHO, various governments and the mainstream media spawned arose from two main things: The first was how the number of deaths per case infected were calculated. Problem one within this arose from trying to determine how many people had actually died from COVID-19.

In the early days of the pandemic, there was clearly a tendency to attribute any death for someone who showed any of the respiratory symptoms of the disease as a COVID-19 case (Yeadon 2020). Later, the definition of a "case" would be extended to anyone who got a positive reading from the incredibly sensitive real time polymerase chain reaction (RT-PCR) testing for practically any viral RNA that has ever infected the individual tested; also see the first of James Lyons-Weiler's papers in this volume). This procedure, often accompanied by dubious laboratory analyses (as shown below) was all it took for all fatalities in anyone who tested positive by that method to be classified as a COVID-19 death. The distinction between "dying from COVID-19" versus "dying some time after a positive result from the super-sensitive RT-PCR testing for COVID-19" remains highly relevant. For example, if one has COVID-19 and it impacts organ systems as described above, in severe cases up to the point where death occurs, this may be a *bona fide* COVID-19 fatality. More indirectly, if one has a significant and documented respiratory or cardiovascular disorder and the disease triggers the cascade of events that further damages an already stressed system leading to death, then it is also legitimate to call that a COVID-19 death. So what are the real fatality numbers? It depends on various unknown factors, such as how many different RNAs trigger a positive RT-PCR result. The answer, therefore, must be assumed that we don't really know what the percent of deaths is relative to the number of genuine SARS-CoV-2 infections.

Problem 2 arose from trying to determine how many people had actually contracted the disease regardless of any overt symptoms, if any at all (the so called "asymptomatic" cases) unique to COVID-19. And the only way to assess this is to do the mass screening by either RT-PCR or blood sampling, serology. In the early phases, blood tests were not reliably done and as discussed below for RT-PCR the excessively high number of positive cases is probably grossly misleading with respect to determining the total number of actual SARS-CoV-2 infections.

For all these interrelated reasons, if you don't know the numerator (the number of actual SARS-CoV-2 fatalities) and you are forced to guess the denominator (the total number of people actually infected with SARS-CoV-2 as contrasted with some other corona virus, or even a flu virus) you can't calculate the rate of fatalities in the population. Professor John Ioannidis ran some antibody tests on April 3-4, 2020 in Santa Clara, California on 3,324 persons and came up with infection rates that were much higher than the medical authorities in California were claiming (Bendavid et al. 2020). By May 2020 researchers in Japan, using a similar method for measuring seroprevalance of SARS-CoV-2 antibodies, found that the number of infected persons in Kobe, Japan was 396 to 858 times greater than had been previously estimated. The consequence of such numbers was to greatly increase the denominator and thus to reduce the ratio of deaths to infections from SARS-CoV-2. Earlier estimates, it seems, based on the far less reliable method of RT-PCR testing, had inflated the death rate from SARS-CoV-2 infections beyond all reason. This is not to minimize the importance of any deaths, but to say that our understanding of the COVID-19 "pandemic" has been distorted out of proportion much as Ioannidis predicted early on (Ioannidis, Cripps, and Tanner 2020).

The media, of course, grabbed such numbers and ran with them, thus vastly inflating public panic and turning COVID-19 into the modern equivalent of the Black Death. In some sense, the erroneous modeling that came out of Imperial College in London, funded by none other than the Bill & Melinda Gates Foundation, notoriously (and predictably) overestimated the expected number of deaths (Chalmers 2020; Dayaratna 2020; Reynolds 2020).

Reported Numbers

So, let's look at the actual reported numbers by age, ethnicity, and sex where possible broken down by demographics for both the U.S and Canada. The current data for the Demographics in the US are found here: https://covid.cdc.gov/covid-data-tracker/#demographics For Canada the data are reported here: https://health-infobase.canada.ca/COVID-19/epidemiological-summary-COVID-19-cases.html The statistics, however, do not evaluate the accuracy (validity) of the data reported. That aspect is particularly relevant given the issues for diagnosis and testing already mentioned and those to follow in this section.

A fast glance of the numbers for the U.S shows evidence for the observations that have been made from the beginning of the pandemic. Namely that most of those diagnosed with COVID-19 (CDC, as of Dec. 4, 2020) are concentrated in the 18-64 age range (75.6%) with very few cases under age 4, 1.8%, and only 8.2% in the 5-17 age bracket, confirming that those under 18 are not the main disease vectors. Somewhat surprisingly, the elderly above 65, considered in some reports to be the most at risk of catching the disease, are at 14.5%. However, those above 56 are most likely to die with the peak at those above 85 at 32.4% with total deaths attributed to COVID-19 of 198,788, oddly a number about 70,000 less than usually reported at this time by the media.

These COVID-19 death numbers reflect what has been seen in various western countries and may reflect either greater mortality due to age, to living conditions as in care homes, or both.

The male/female ratio is pretty close at 47.9 versus 52.1, respectively. In terms of ethnicity, white non-Hispanics make up the bulk of cases at 52.5%, followed by Hispanics at 24.2% and 14% for Black Americans. These latter numbers, however, cannot be taken to be definite because they are not adjusted for proportion of the overall population, nor does the CDC consider reporting consistent by state and community.

Canada during the same period reported 372,409 cases (with the same problems already noted for testing in general) and approximately 19,900 deaths. There was a relatively even case spread until after age 60, after which the infection rate declines. Male cases predominate over female from ages above 39. Canada did not report on ethnicity.

Assays to evaluate COVID-19: PCR versus serology

A key concept to keep in mind in the following is that viral infection in an uninfected person largely depends on both the amount of virus they are exposed to and the time period over which they are exposed. There are other factors such as the virulence of the virus. For details see the Pathogenesis of Virus Infections as explained by (Burrell, Howard, and Frederick A Murphy 2017) in Fenner and White's Medical Virology (Fifth Edition):

> Viral virulence is influenced by viral genes in four categories: (1) those that affect the power of the virus to replicate, (2) those that affect host defenses, (3) those that affect tropism, spread throughout the body and transmissibility, and (4) those that encode or produce products that are directly toxic to the host.

Testing protocols

PCR

Most jurisdictions around the world have been using variants of testing by polymerase chain reaction (PCR) to determine if someone is infected with COVID-19. In this approach, a researcher can take a very small sample of genetic material, for example from a virus in an infected person's nasal pathways, and run this through a series of chemical steps in a device termed a thermal cycler. Each cycle is one amplification of the original signal. In British Columbia, as elsewhere, the preferred PCR method of many is called "reverse transcriptase PCR (RT-PCR; Anon 2020d). There are numerous ways this protocol can go wrong, but in the hands of qualified researchers such problems should be minimal.

In order to detect a RNA nucleotide sequence, for example that which gives the spike protein of COVID-19, multiple amplification cycles are typically undertaken. The threshold for detecting viral RNA that might be from infectious viruses is called the cycle threshold or "Ct." Typically, researchers use 25 to 35 cycles. Going toward the higher end and beyond increases the risk of rejecting a true null hypothesis, that is, of getting a false positive answer, finding a "case" where none exists (Type I error); going too low risks failing to reject a false null hypothesis, thus missing a "case" of actual infection (Type II error). The relative dangers applied to COVID-19 testing are that a false positive might characterize a person as infectious when they are not (and quarantining that

person unnecessarily, and at considerable expense; per the first paper in this issue by James Lyons-Weiler), while a false negative risks missing someone who is infectious (someone who perhaps ought to be quarantined but will not be). Writing in *Focus on Victoria*, Alan Cassels, a Victoria-based journalist, took a look at potential PCR testing problems here in British Columbia in an article titled, "With the COVID-19 test, positivity doesn't mean infectious" (Cassels 2020). Referring to disease numbers and deaths since March 2020, he asked: "What stands out from these numbers [of number of active cases, hospitalizations, deaths, etc.]? An extremely low likelihood of death by COVID-19 in BC. Certainly lower than any annual toll of the flu. Certainly lower than the numbers of people who have died from cancers, heart attacks, overdoses, suicides and the myriad of other things that take life every single day. If you take 2019 as an average, 132 people per day die in BC, from all causes. That was the last full year without a pandemic virus." And, he continues: "With less than one person per day dying of COVID in BC, one is tempted to ask if we're making a mountain out of a molehill. I'm increasingly surprised by the general subservience of the populace and the absence of thoughtful dissent against emergency measures that are undoubtedly causing all kinds of other suffering, wreaking long-term havoc on our society, our livelihoods and our economy."

Cassels takes the view that serious COVID-19 illness and death, while tragic, tends to focus our health professionals on one disease and thus one health outcome. In the process, both they and the province's politicians, may neglect others suffering from a range of health related problems, for example, the increasing impacts of drug use with the attendant mortalities, spousal and child abuse, and increasing poverty due to COVID-19 economic impacts. In regard to this latter situation, false positives tend to make politicians go to extreme measures to control disease spread, as they are now doing in various countries, while exacerbating the other issues that have long ranging implications for overall health. Cassels goes on to elaborate about the crucial issue of false positives,

> I consulted a molecular biologist (who asked me to withhold her name as she works as a provincial government biologist) who said that we have to be very cautious in interpreting these tests because the reverse transcriptase enzyme has poor efficiency in converting RNA to DNA. She told me that if we do over 30 to 35 cycles "we can't culture a live virus from the sample." Basically, she added, "a high cycle threshold means we're finding meaningless fragments that say nothing about the infectivity of the patient."
>
> This is an expert who uses the RT-PCR test everyday in her work doing forensic science, so I trust she knows its limitations. She was quite forthright in saying that possibly as many as 90 percent of those testing positive for COVID-19 are probably not infectious. Which is to say they may have had "fragments" of the virus, but they couldn't possibly spread the virus to anyone else.

These comments are backed up almost precisely up in a recent study by Jaafar et al. (2020) titled, "Correlation Between 3,790 Quantitative Polymerase Chain Reaction–Positives Samples and Positive Cell Cultures, Including 1,941 Severe Acute Respiratory Syndrome Coronavirus 2 Isolates", which appeared in the journal *Clinical Infectious Diseases*, and can be viewed at https://doi.org/10.1093/cid/ciaa1491. The authors compared active virus recovery from cell culture experiments compared to the Ct at which the samples were retrieved. At 25 cycles, the real positive rate was 70%; at a Ct of 30 it was down to 20%; at 35 cycles it was less than 3%. This means that running at 35 cycles, the false positive rate is about 97%.

To add to this, an article that came out last year shows just how incorrectly British Columbia, and likely a host of other testing states/provinces/countries, were performing their PCR tests to determine case numbers. In British Columbia, for example, not only do they test samples with 35

cycles, they are also apparently not consistent in the number of cycles used. Ryan et al. noted the first two major mistakes *not* to make with PRC:

> Mindful of the recommendations contained in series of existing review papers on eDNA…we offer the following suggestions for standardizing eDNA techniques in light of our own findings. *To maximize diversity detected with a given primer set, minimize PCR cycles, preferably fewer than 35; Keep PCR protocols strictly consistent across samples you wish to compare* [italics, mine]. (Kelly, Shelton, and Gallego 2019).

In other words, to get accurate measurements, one needs to do the exact opposite of what the health authorities in British Columbia have done to date. As cited above, the British Columbia Centre for Disease Control which does PCR testing for COVID-19 for the province, runs their PCR tests at 35 cycles. From solely a perspective of knowing who has had COVID-19 and thus getting a better grip on numbers to date this might be useful in calculating the true overall death rate due to infection. However, from the perspective of determining how many might still be infectious and thus require more severe population control measures by the authorities, this is simply nonsense. False positives cannot infect anyone else and, as noted by Cassels, identifying positive PCR outcomes as COVID-19 "cases" when they are clearly not is sloppy science and a foolish basis for governmental decisions.

To confirm what I had heard from Cassels in person, I also asked the BC CDC directly. Here is what came back:

> PCR testing
>
> The cycle threshold number used to diagnose COVID-19 may vary based on the test used but we typically use a cutoff of 35 cycles and simultaneously detect two targets (the RDRP and E gene) and certain assays use cutoffs of 40 or even more cycles.
>
> Cycle threshold represents how many rounds of amplification are required to detect COVID-19 RNA in a sample. More cycles mean less copies of virus in the sample hence there are concerns about being overly sensitive.
>
> However, this is a very complex issue. There is good evidence that when more than 24 to 30 cycles are required to detect virus the virus concentration is so low that it becomes difficult to cultivate the virus. However the cells used in the laboratory to cultivate the virus aren't equivalent to the cells in the *nasopharynx or the lungs in people. So just because one can't culture the virus in a laboratory that does not mean that it won't transmit. Many believe that with low copy numbers (high CT) values the virus is not likely to be transmitted.*
>
> But it is also important to understand that it is not that the test sensitivity is being inflated, rather having a very sensitive test helps address missing infected people because of poorly collected samples (collecting adequate samples is difficult, and samples such as saliva typically have less virus especially in outpatients).
>
> In the literature and first hand we have seen a number of cases of COVID-19 in British Columbians where the person is early on during their infection course and the initial sample had a very high CT value ~35 (low virus RNA concentration) and the next day the CT was ~14 (high virus RNA concentration). Setting the detection threshold to [*sic*] low seems appealing until one misses that early case that can transmit infections to multiple people. [italics, mine]

So, in other words, BC CDC recognizes that they are on the very high end of detection, but feels they can balance the resulting high false positive rate by their worries about going too low and by their reliance on a particular cell culture method.

As for the statement that the cell cultures used by some researchers may not reflect the ability of low levels of actual virus to infect cells of the nasopharynx or lungs, it's a simple problem to solve: Go to a cell culture repository, such as American Type Culture Collection (ATCC; at

https://www.google.com/search?q=atcc&rlz=1C1CHBF_enCA816CA816&oq=atcc&aqs=chrome..69i57j0i67l4j0l3.4847j0j7&sourceid=chrome&ie=UTF-8) and get the right kind of cells. It's easy and I did it in five minutes: Open the website, go to Cell Lines for COVID-19 Research, find the section on Primary Cells you want, then take your pick. It is literally about that hard. All of this again is begging the question of why BC CDC chooses not to find the cell types that they claim they need.

It is worth noting in regard to the overall discussion about PCR that the co-inventor of the PCR, Nobel Laureate Dr. Kary Mullis, completely agreed that running too many cycles allows one to find anything that one wants to find, whether it is meaningful or not (Mullis et al. 1986).

All of the above raises the next question: Does the Provincial Health Officer, Dr. Bonnie Henry, really not know the broader literature, such as the Jaafar et al. study, or is there something else here, apart from a rickety bureaucracy, that the rest of us are missing? Wouldn't a better Ct have been in a sweet spot of detection within acceptable false positive and false negative levels, for example, somewhere between 20 and 25?

Serology

Another way to test for COVID-19, or any other disease, is to use antibody methods. In other words, to look at antibodies created by your immune system in response to infection with some pathogen, such as a virus. However, this approach is, at best, a surrogate marker because positive antibody levels do not tell you if you are immune, merely that your immune system has responded at some level. Antibody serology also does not measure the power of response of the body's immune memory cells. In context to COVID-19 case evaluations, serology can, however tell you if the person has encountered the pathogen. Antibody screening does not tell whether the person has an active infection. It can only detect whether there has been one in the past.

A key concern with antibody testing is that the testing "kits" have high sensitivity (that they have the power to detect relatively small numbers of antibodies to the pathogen in question) and specificity (that they have the power to focus on antibodies addressed to a particular pathogen). However, a test that is sensitive to every conceivable pathogen, to many of them, is relatively useless for identifying infections by a particular virus such as SARS-CoV-2. Both sensitivity and specificity are required for valid tests and are not easily, and certainly not always, achieved (Deeks et al. 2020).

What this means is that to have any valid predictive value, any such test needs to detect the particular antibodies to some disease with high levels (*sensitivity*) and not confuse them with antibodies to some other pathogen (*specificity*). Both are important but the latter is crucial. As a matter of fact, the power of any serology antibody test to detect a particular type of infection as distinct from many others that may be involved is relatively unimpressive (Mboumba Bouassa et al. 2020). Serology can easily give false results. Some antibody detection products are better than others and finding those that give reliable outcomes is not easy, particularly in the COVID-19 pandemic.

One particular example, as cited above, involved the much criticised antibody tests conducted by John Ioannidis and colleagues in their initial screening for antibody levels for COVID-19 in an attempt to derive the correct percentage of the population affected by COVID-19 (Bendavid et al. 2020). The criticisms of this work seemed to arise mostly from a disagreement with the ongoing mainstream narrative about how deadly COVID-19 was, rather than the methods employed. In

another study, one comparing results of serological tests with confirmed PCR cases of persons infected with SARS-CoV-2 but not hospitalized — to avoid the bias of selecting only severe cases of infection — the results were not reassuring:

> Of LFIAs [lateral flow immunoassays, a kind that can be used on a world-wide scale] assessed in both clinic and laboratory, finger-prick self-test sensitivity varied from 21% to 92% versus PCR-confirmed cases and from 22% to 96% versus composite ELISA [enzyme linked immunosensitive assay; test kit] positives. Concordance between finger-prick and serum testing was at best moderate (kappa 0.56) and, at worst, slight (kappa 0.13). (Flower et al. 2020)

Given that the "finger-prick" testing and "serum testing" both involved the blood drawn from the same individuals the degree of "concordance" between the distinct methods was incredibly weak. Whereas it should be nearly perfect (kappa = 1) — because the same individuals were tested — in fact the measured level of kappa suggest actual agreement at about 50% to 55% of the assays (Anon 2020a).

To Halt the Spread of COVID-19, How Effective Are the Measures Taken?

Different countries chose different strategies to halt the spread of COVID-19. Typically, these involved various levels of lockdowns of movement and association, mandates for masks, and other health measures. One fairly fierce debate is whether Sweden, which did a minimalist protocol for COVID-19 containment fared better than other Western European countries which opted for harsher measures. The initial results seemed to suggest that Sweden had failed compared to other countries in the region which had more stringent measures (Habib 2020; Pearce, Lawlor, and Brickley 2020). That view is now up for debate, especially if Sweden got the entire pandemic over at once and is not now facing a serious second wave unlike their neighbors (Habib 2020a). At the time of this writing, these results are still not available.

A similar question can be asked about China where the pandemic began. How many died and did they get control of the pandemic with a harsh lockdown regime? The answer is that we don't really know.

Masks

The key question here to ask is this: Does wearing masks by the population at large help slow COVID-19's spread, or can it hurt the individuals who do so?

The common wisdom, and that promoted heavily by the mainstream media and health officials, is that mask wearing definitely helps and can't possibly hurt. This leads, in turn, to members of the public "virtue signalling" or even actively shaming those who won't, or can't, wear masks with a comment that many of us have heard over the last year: "Just wear the damned mask already."

But is it even true that mask wearing actually helps slow transmission. The answer is maybe yes, maybe no, and it depends.

This is confusing to say the least and much of this confusion arises from assuming that all masks are equally effective at blocking viral transmission in either direction. In the following, let's look at the main types of masks in order of effectiveness, from lowest to highest, where the main criterion is

viral permeability due to the materials used in mask construction. The second criterion is how the masks are worn.

The most common mask types seen in public are the varieties of cloth masks that now come in a variety of designs and colors. These are typically made of one or two cloth layers of various types. Depending on the weave of the cloth mask, these might diminish viral transmission in either direction by blocking large droplets or even phlegm. That, of course, would be good. Is that, however, how most COVID-19 is transmitted? No, it's rather mostly transmitted by the smaller, longer traveling droplets called aerosols. Cloth masks do pretty much nothing for these latter droplets and the viruses that might go in either direction, that is from wearer to someone else, or vice versa. Canada's federal health officer, Dr. Teresa Tam, recently suggested that people who wear cloth masks sew an additional third layer of some material, such as diaper material, into their mask (Perreaux, MacDonald, and Walsh 2020; Possamai 2020).

Next up are surgical masks. As with cloth, these are several layers thick, usually of 3 layers as described in an advertisement on the web: a melt-blown polymer, such as polypropylene (which though it may not be harmful to human wearers, is not precisely environmentally friendly over the long term), in the middle between an inner and an outer non-woven fabric. Is this sort of mask able to stop viral transmission? No. The very same conditions apply as for cloth masks: a surgical mask is not designed to stop viral transmission in either direction. As the name implies, these masks are worn during surgical operations to keep material from the wearer out of the sterile field of the patient's open wound; it also serves to keep blood and tissue from the patient out of the mask wearer.

KN95 masks resemble surgical masks. These are Chinese knockoffs of the N95, discussed below. As the name implies they are listed as being 95% effective in stopping viral transmission. This may not, always be correct, though N95 masks are about 95% effective at stopping viral transmission to the wearer if they are fitted properly. Since these masks allow the wearer to breathe freely out, they do not stop viral release to the outside. Like the cloth masks and surgical masks, they will stop large droplets/phlegm from coming out.

Finally, there are the more elaborate masks and face shields, and full body covering sealed at hands and feet, much like Hazmat suits, designed to keep pretty much everything out. These will do just that, but are obviously not realistic for COVID-19, but are rather intended for a BSL-4 containment facility.

One thing to remember with masks of those described above is that covering one's nose and mouth will prevent bacterial and some viral transmission, but since both can also enter through the eyes, this protection is limited far more than most proponents claim. In addition, if one touches any fomite — object or surface containing the virus — and then touches the mask, the entire benefit, if any, of the mask is compromised.

An argument can be made that, just like the usually low effectiveness of influenza vaccines, anything is better than nothing. Well, maybe not: in their paper about the granting of emergency use of COVID-19 vaccines, Singh and Upshur (2020) noted that studies of efficacy of the influenza vaccines have actually never been done at all.

> Despite influenza vaccination becoming routinely recommended for people aged 65 years or older in the USA, whether it lowers mortality is not certain because randomised trials measuring this outcome have never been done.

The argument that low levels of efficacy might be tolerable, could conceivably be true if there were no potential harms associated with the vaccines themselves, but that cannot be correct (Children's Health Defense 2020; Smout 2020). It certainly has not been with the influenza vaccines (Eaton et al. 2018; Oller 2020). Also, in the fear of the moment we should not forget the lessons of Thimerosal and the synergistic interactions of that compound and others, including, for instance, aluminum adjuvants (Luján et al. 2013; R. F. Kennedy 2014; Anaya et al. 2015; Kennedy et al. 2016).

Are there any possible health consequences to mask wearing? For the surgical, KN95 and N95, probably not, apart from whatever psychological issues a person may have now or in the future (Szczesniak et al. 2020). However, with the cloth masks the harm is more physical than purely psychological: As you breathe into a cloth mask over the space of hours you are depositing your respiratory system's bacteria into the warm, moist inside of the mask. Bacteria love such environments and will happily start to breed. You now inhale these bacteria, some of them pathological and in more abundance than before. What might be a consequence? A greater colonization of your respiratory system seems likely. It may be important to observe that the primary cause of death in the "Spanish flu" 1918-19 pandemic involved secondary bacterial pneumonia (Brundage and Shanks 2008; Morens, Taubenberger, and Fauci 2008).

It gets worse: virus infection also increases as described in a 2015 article (MacIntyre et al.) in the *British Medical Journal* (*BMJ*). The editor of *BMJ* decided to add an editorial note to the original article showing that the authors had decided in the face of COVID-19 that any kind of mask against the virus was better than nothing:

> The authors of this article, published in 2015, have written a response to their work in light of the COVID-19 pandemic. We urge our readers to consider the response when reading the article. (see the article at https://bmjopen.bmj.com/content/5/4/e006577.responses#COVID-19-shortages-of-masks-and-the-use-of-cloth-masks-as-a-last-resort).

In other words, forget what the original article said, that was then, this is now, and COVID-19 hysteria trumps previous data if it doesn't conform with the current official panic levels.

Is there other evidence from the medical literature that most mask wearing actually diminishes viral, or particularly COVID-19, spread? Apart from the above, no, not really. The Mayo clinic released a document called *COVID-19: How much protection do face masks offer?* (Mayo Clinic Staff 2020), basically reiterating the discussion of mask types and efficacy, stressing that masks are *only part* of the overall process, including hand washing, for stopping viral transmission.

Tom Jefferson and Carl Henegan, both members of Oxford University's Centre for Evidence-Based Medicine recently penned two articles on the subject of mask effectiveness against COVID-19 spread. Jefferson used to be the head of the Cochrane Collaboration's Vaccine Field group that used to take a generally balanced look at vaccine issues (Enserink, 2018).

Jefferson and Heneghan (2020) evaluated the evidence for the utility of masks against COVID-19 and concluded that there is a general lack of evidence in their favor. This doesn't mean that masks might not be effective to some degree as discussed above, just that the evidence is not yet all that

solid. In a more recent article, the same authors reviewed a current small Danish RCT study called DANMASK-19, that failed to find a significance in COVID-19 infection rates between mask wearers and those who didn't wear masks (Heneghan and Jefferson 2020).

Looking at the DANMASK-19 study in more detail (Bundgaard et al. 2020) it is easy to see why Heneghan and Jefferson came to this conclusion. In this study, the authors conducted a gold standard controlled clinical evaluation. In brief, they enrolled 3,030 participants who were instructed to wear a standard 3-ply surgical mask when out and about for 4.5 hours per day. Controls consisted of 2,994 similar persons who did not wear masks. Of the first group, the authors eliminated those who did not consistently wear their masks for the required time or in the right way. At the end of the trial period, all participants were tested for COVID-19 by their symptoms, as well as by PCR and antibody tests. The results: both groups showed about a 2% COVID-19 infection rate. The rate of infection noted here is marginally higher than that observed by Moderna in their second press release on their efficacy trials (Moderna TX, Inc. 2020), and likely reflects phases of the pandemic, as well as what is happening in different countries around the world.

The authors acknowledged a number of limitations to their study, one being that there was no control for what the participants were doing the other 19.5 hours per day. The journal also featured 17 comments by readers, some of which were worth examining. For example, one commentator wrote that there was no control for interactions with family members during those non-masked hours. There are two take home messages here: one, as noted by Bundgaard et al. (2020), mask wearing alone is not going to change the outcomes and indeed this is precisely the problem that has to be acknowledged by governments. Secondly, the number of people infected in both cases, coming in at 2% hardly describes the media's tendency to portray COVID-19 as a massive modern scourge. If the infection rate is about 2% and we take the highest estimated death rate of 3.4% coming from the WHO early in the epidemic (Ben Swann 2020), out of 100,000 persons in the population, on the average, we should estimate about 7 chances in 10,000 of getting and dying from a SARS-CoV-2 infection, regardless of whether or not you wear a mask.

As Jefferson and Heneghan stressed in their first article, the way that medical and lay people evaluate the efficacy of masks, overall, is very much in keeping with politics rather than science. As I argue in my book, when people are thinking about COVID-19, and even more generally when the discussion is about vaccines, the "trust the science" perspective makes the science out to be whatever the politicians and media are reporting. "Science" becomes whatever preconceived beliefs the poloticos and media are serving up today.

Another issue, at least here in British Columbia, is that the masking policies seem capricious: Masks are now required for adults inside any public building, but not for anyone under 12 years old. Are the medical authorities stating that children can't get COVID-19 and thus cannot transmit it? If so, this is a contradiction to what they have said throughout the pandemic.

Social distancing

Social distancing is the notion that if people stay a minimum of 2 meters, roughly 6 feet, apart from each other, then a person infected with a virus can't spread the virus to another. As described in a recent publication (Jones et al. 2020), this 2-meter number, a vast oversimplification of the actual

facts about virus dispersion, arose from an experiment done more than a hundred and twenty four years ago using methods that could not distinguish particle size and distribution accurately (Flügge 1897). More realistically, the actual distance measurements depend on the size of the particles released, that is larger ones as well as aerosols, and ambient conditions such as wind, temperature, etc. Taking a middling position at 2-meters may seem like a reasonable alternative if you want to avoid the most common infection zone, but in reality, the rule is arbitrary. Nor does it take into account virus particles on fomites, or what happens within homes where presumably a family is not expected to observe any such distancing. So on the one hand it seems to be something we can all do to limit the spread of COVID-19, or any other virus, and on the other simply a way for the authorities to signal to all of us that their regulations show that they are on top of the problem. Of course, it should also be noted that the demands for 2-meter spacing tend to be ignored if the same authorities have sympathy with events involving masses of people, such as with the various Black Lives Matter (BLM), demonstrations in the U.S and Canada, or if they don't with groups protesting *the lockdowns*. Accepting that BLM is protesting *en masse* for a very valid reason, the fact that our own health authorities allow them to do so while condemning other groups, simply reveals that the 2-meter policy is quite capricious, with the key variables being politics and the likelihood that enforcing restrictions would lead to protests getting out of control. In other words, this is not about medical practice, it is about population control. The fact that the media generally go along without question merely emphasizes the extent to which the media have become spokespersons for agencies of the State rather than actually doing real journalism.

Lockdowns

This brings us to lockdowns. Do they work? The answer, as with masks, is yes, no, and maybe. How can this be? The yes part is simple: if you keep everyone away from everyone else, any infected people will not be able to infect others. Eventually, those ill who recover will gain at least temporary immunity and not be able to infect others. There are various caveats to this, however. The first obvious one is that the longer you do it, the greater likelihood of economic disruptions that will tend to cascade as we've seen around the world. If you want to crash an economy, then this might be the way to go. A key question is how long do you wait before removing the lockdown? Is it the standard quarantine period of 14 days? If so, how does one explain the second COVID-19 wave in countries like Italy that were completely locked down and whose borders were closed. You can't, unless you also postulate secret reservoirs of virus that are somehow evading the expected timeline for the infectious phase. The standard answer often given for the difference is that in comparing Italy and China, the first was slow to lock down, the latter did it sooner in Hubei province. But Hubei is part of China and once the lockdown there ended, the rest of the population of China could go to Wuhan and those in Wuhan could go out. Maybe, but to accept this one would also have to accept that no one at all outside of Hubei province was infected with COVID-19. This last is patently absurd given that the virus was supposed to have infected the world starting in Wuhan.

What about Sweden? They didn't lock down, but tried to find a middle way. Did they succeed to control COVID-19 with much more modest measures, or not? Did they get a second wave or did they basically get it done all at once? The emerging picture suggests that they did not (Habib 2020a), although more than anything it calls into question the understanding of how herd immunity actually works, either for disease epidemics in general or following mass vaccination.

The next thing to consider with lockdowns is what else happens while people are locked down. For example, the economic costs and the inevitable increase in poverty or in general indebtedness as most North Americans live paycheck to paycheck, and are not even close to parity with government handouts during the lockdowns. Never mind the failure to treat other medical conditions — ironically, including kids not getting other vaccines on the CDC schedule — the psychological impacts on everyone, maybe particularly children and the elderly, the increasing levels of depression and suicide, child and spousal abuse, drug overdoses, and more. If we were dealing with a truly horrible pathogen such as Ebola or Marburg virus, then full lockdown measures might indeed be the better option. But as we aren't, as shown in the above section on real cases versus fatalities, then a full lockdown is not in anyone's best interests, apart maybe from those who sponsored and stand to profit from the upward flow of wealth in the Great Reset (see the next article following mine in this issue).

Monitoring

The monitoring of COVID-19 cases, including by "contact tracing" has been a train wreck from a scientific perspective. Contact tracing involves determining if someone has COVID-19 and then locating and testing everyone that the "infected" person has been in contact with, including their families. At a superficial level, this seems like a straightforward way to control the pandemic before it spreads further. But, as cited above, if your confirmation is an RT-PCR test in which you have set the cycle number at or above 35, all you generate are meaningless false positives. If your goal is something besides actual disease control — say, for instance, to scare everyone in the world into taking one of the coming SARS-CoV-2 vaccines — this is peachy. If, however, the real concern *is* disease control, "contact tracing" is expensive, invasive, and is quite certain to do more harm than good. In this connection, consider the cost of false positives from the perspective offered by James Lyons-Weiler in the fourth paper in this issue.

Reporting and snitching

If the authorities are hoping to make ostensibly free societies conform to the former German Democratic Republic model, this is one way to do it. If that is not what you want, then such recommendations are not for the benefit of anyone but the State. Does what happened in Germany leading up to and during World War II ring any bells?

Vaccine Passports

This idea is increasingly being floated by various entities, including governments, airlines, and others. The idea here is that you will have some sort of electronic device that has recorded your COVID-19 health status: either you have had a vaccine for the disease, or you have had a negative PCR test. If you are listed as "green" you are good to participate in "normal" life. If you aren't, or will not comply with the vaccine or the test, then you will have a "yellow" or "red" status and you won't be allowed to buy or sell, or travel.

The obvious flaws in such a health passport scheme are the following: First, since vaccines tend to have limited effectiveness over time (secondary vaccine failure), how often do you need to get tested? What about whether the vaccine didn't work in the first place (primary vaccine failure). Will

you now have to have an antibody test to see? Will you have to be revaccinated if not? How often will your "Health passport" have to be updated? This is the sort of thing that various corporations will love, as well as State bureaucrats whose lives revolve around making their fellow citizens functional prisoners. Since the above flaws in testing will be huge, it clearly is not a health measure and cannot accurately tell us who is infectious or not. Rather, this is clearly a control measure.

Legislation

British Columbia recently passed Bill 19 in the provincial legislature — providing "broad new emergency powers" measures allowing the government to "change any legislation during an emergency, without any oversight form the public and without approval from the legislature" (Macauley 2020 — mirroring similar legislation in other jurisdictions (Kate Ryan-Lloyd, Clerk of the Legislative Assembly 2020; Macauley 2020). Here we have the purest expression of the phrase "state of exception".

COVID-19 vaccine mandates

In response to the "pandemic", the clarion call for vaccine mandates rings out in various legislatures and in the media. As I point out in my book, in a chapter dealing with the ideology of vaccination, one way we know that we are dealing with a cult religion is that *everyone* joins the cult either freely, or they are compelled to join if they don't want to do it. Either way, they must join. As an aside, I have never once heard those opposed to any aspect of vaccines take a similar extreme position on the negative side: That everyone absolutely must refrain from being injected, or that all vaccines must be banned. This is a fundamental difference between cult behavior and free choice.

The 2015 measles outbreak in Disneyland and the later wave of supposed measles outbreaks in 2019 spurred calls for mandatory vaccination, often for infectious diseases other than measles. The panic associated with COVID-19 has amplified the calls, reflecting the near panic that COVID-19 monitors have generated. We can only expect the demands for vaccine mandates to accelerate for two reasons: first the fear generated is contagious and real; and the second reason is that when authorities realize that they are not achieving anything close to "herd immunity" (because nowhere near the 80% infection rate predicted by Neil Ferguson of Imperial College in London is occurring), they will impose laws or constraints on buying and selling that will force the uptake of vaccines. To hell with voluntary uptake. In fact, any actual "herd immunity" in human populations is never possible with vaccines at all because of secondary vaccine failure — whatever fraction of the population has yet to be infected in order to develop natural immunity is always prevented from acquiring it by forced vaccination programs with a significant rate of secondary failure.

It is obvious, however, from the brief history laid out in this paper that no COVID-19 vaccination program was ever intended to be only for kids. Whatever shape it may take in terms of the number and types of approved vaccines, the program will be for the whole population. Once the authorities see that they can't get there with the carrot, out will come the stick. As I've discussed, this will not likely be represented as forced vaccination, but rather the withdrawal of your freedom to enjoy your routine daily life at restaurants, bars, movie theaters, and malls, getting on an airplane, riding in a taxi, or just driving about and buying gasoline in your own car and in your own country, etc. The hope by those in authority is that the withdrawal of your privileges will force those on who might

prefer to wait and see, or simply to say no thanks to the vaccine(s), to comply with the global technocratic surveillance systems that are now in the phase of being patented and manufactured.

But do the same authorities not realize that all of the current vaccine candidates — two of them coming off the shelves and into the marketplace from Pfizer and Moderna as we speak — already demand at least two shots initially and then likely will require boosters at some unknown interval for the rest of a person's life. The manufacturers selling the vaccines, of course, will love this.

What will be less to like is the almost certain increase in adverse reactions that can be predicted. What then? It will be Gandhi's march to the sea paradox in that any action taken by the authorities using their meager understanding of the disease will be the wrong one: in attempting, certainly with limited success judging by viral vaccines of the past, to reduce the spread of the pathogen of the day — something that is about as likely to change tomorrow as the weather — they are virtually certain to accelerate the number and severity of autoimmune reactions and chronic noncommunicable diseases (Calitz et al. 2015). Pick one; or better yet, don't go down this path at all, but telling that to a politician or medical bureaucrat is about as useful as talking to a wall, maybe less.

Social and medical consequences of COVID-19 control measures

In addition to the above control measures, medical and political authorities in large measure have relied on fear to drive many otherwise decent people to act as *de facto* medical guardians of everyone else. Aspects of this were seen in what was termed "social shaming" to blame people not fully complying with the regulations *du jour* for any COVID-19 surge or even death all the while virtue signalling by mask wearing — regardless whether the mask worn did anything positive at all. This last was common.

What were the impacts of such actions? As fully predictable, these included making children more fearful of others and their world, a feature that will surely come back to haunt us in the future. They including making addicts so fearful of other people that they neglected to use so called "safe injection" monitored sites, at least here in British Columbia, leading to a significant increase in overdose deaths (Rodda, West, and LeSaint 2020); increases in spousal and child abuse (Brown et al. 2020; Thomas et al. 2020); increased morbidity and mortality due to people not feeling safe or being willing to access medical care (Dave, Seoudi, and Coulthard 2020; Devi and Kostova 2020; Sher 2020); and the impact of social isolation on the elderly (Robb et al. 2020). In addition, the increased levels of financial distress much of the population suffered, including job loss with loss of income, exacerbated much of the above (Witteveen and Velthorst 2020).

Gaslighting the "proles" for fun and especially profit

A widely stated view by the medical and political establishments is that "normal" returns once a vaccine is available (and taken by most people). Note that the companies making the COVID-19 vaccines — Moderna (mRNA-1273), Pfizer (BNT162), AstraZeneca (AZD1222), and Johnson and Johnson (Ad26, Cov2.S) — have all received liability protection from various governments as part of the price for making their future vaccine available to those countries (US Department of Health and Human Services Food and Drug Administration Center for Biologics Evaluation and Research 2020; Singh and Upshur 2020).

The first two SARS-CoV-2 vaccine producers (of the previous paragraph) are using messenger RNA (mRNA) platforms for their vaccine. Basically, mRNA platforms are novel, largely experimental, means of immune stimulation in which the mRNA for the crucial COVID-19 spike protein (the part that allows the virus to attach to ACE-2 receptors) is encapsulated in lipid nanoparticles. The vaccine containing this construct is injected into the muscle and is meant to move into cells, come out of its lipid envelope, bind to organelles called ribosomes and thus cause the mRNA/ribosome complex to generate the spike protein. From there, the protein is expected to migrate to the surface of the cell where it will trigger an immune response, ideally by both B and T cells, as well as eventually creating neutralizing antibodies.

Earlier human mRNA vaccine studies have demonstrated a range of issues in humans and animals. In earlier human trials Alberer et al., (2017) of CureVac used an mRNA vaccine against rabies, and conducted and reported on a Phase 1 trial with 101 human volunteers examining the safety and tolerability of that vaccine. The study ran from 2013 to 2016 and reported only mild to moderate adverse effects and good immunogenicity, but not if the vaccine was injected intramuscularly. The researchers did not examine the volunteers over an extended time period for safety. Bahl et al. (2017) from Moderna looked at an mRNA vaccine for influenza across a range of species, including humans, primates, ferrets and mice. In all cases they found a strong initial immune response. In the animals used, no evaluation of any impact on organ systems was reported. Similar results were found by Edwards and colleagues in two different studies (Abu Raya et al. 2017; Edwards et al. 2017) from Sanofi-Pasteur, but again no safety data were reported.

Other animal studies, in general, made similar claims: high levels of immune response, but there were some concerning aspects in relation to safety. Among them were acute respiratory syndrome (ARDS), migration of the construct from the injection site, and antibody dependent enhancement (ADE). For example, Moderna's recent rhesus macaque monkey study used 24 male and female animals divided into groups of 3. In the vaccinated groups they used either the 10μg or 100μg dosage of the mRNA vaccine. Animals were injected twice at time 0 and 4 weeks later, then challenged by being exposed intranasally to live COVID-19 virus. The study claimed that the vaccinated groups showed effective prevention of infection of the lungs in both groups put only in the nose with the 100μg dose. In both cases, the claim was that effective production of neutralizing antibodies occurred along with increases in T1 helper cells. However, the study also noted that monkeys do not get severe COVID-19 disease. In addition, the study did not examine any possible adverse effects beyond presumably the animal's behaviors, assuming that was done prior to sacrifice (Corbett et al. 2020). A prior mouse study (Corbett 2020) also from Moderna and only posted to a pre-release journal website (i.e., not peer reviewed), reported the same high antibody response, but again no long range safety data were obtained.

Another problem with mRNA vaccines is that they require extreme cold storage before injection in the range of at least -20C° to -80°C. This makes it difficult, albeit not impossible, to transport effectively *en masse* to those who may want it, or for whom the government wants it. This also calls into question how labile the vaccine may be, both the mRNA itself and the lipid covering, in the long run inside the human body. This may be one reason why various entities including the NIAID have suggested that multiple booster doses may be required (Jaimie Etkin 2020; Woodward 2020).

The vaccines being developed by the other companies above, as well as the Chinese company Sinovax and the Russian vaccine Sputnik V, are so-called viral vectors vaccines. Viral vectors vaccines, as discussed in my book, take a weakened virus for another disease and incorporate the protein that you want to generate the immune response, in the case of COVID-19 the spike protein, into it to trigger an immune response. These vaccines are more stable than the mRNA vaccines, but are also largely experimental.

Human Trials: Efficacy Data for Moderna

The first mRNA vaccine efficacy data coming out of Moderna's Phase 3 study and similar claims by Pfizer have been widely touted in the media and by people like Anthony Fauci. For this reason, it is important to realize just how such numbers can be manipulated to make outcomes seem more favourable and thus palatable to the public in an attempt to boost future vaccine uptake.

In the initial data cited in a press release on November 16th, Moderna claimed an efficacy of 94.5% of the vaccine in preventing COVID-19 infection. The Phase 3 trials had enrolled 30,000 people in a 1:1 ratio of treated versus controls in what Moderna claimed was a double-blinded study. A double-blinded study is one in which neither the participants or the experimenters know who gets the placebo or the treatment.

Let's assume for a moment that there were 15,000 in both the control arm (the claim is that the controls actually received a saline placebo, rare as that is in vaccine trials) and 15,000 in the treatment arm of the vaccine mRNA-1273 given at the middle dose regime of 100μg based on their Phase 1 trials. Two weeks after the second injection, Moderna monitored the participants for 2 months out in the real world and recorded those who became infected with COVID-19 (https://investors.modernatx.com/news-releases/news-release-details/modernas-COVID-19-vaccine-candidate-meets-its-primary-efficacy). The primary endpoint of this monitoring gave 95 total infections, 90 in the control group, 5 in the vaccine group. How the infection was determined was not specified in their press release, but would be useful to know in light of issues discussed in the earlier sections of this paper. One would also like to assume that diagnosis was not simply by a physician's subjective observation of symptoms.

If the numbers are correct, and remember this is science by press release with no raw data included, then the RR indeed comes out at 94.5% efficacy. Put into percentages, the controls had a rate of infection of 0.006% and the vaccinated group 0.00033%. How about severe cases of COVID-19 found in the control arm? In the same approximately 15,000 control subjects, 11 were diagnosed as having a severe case of COVID-19 or 0.0007%, or about 12% of the total group of the controls were infected.

Two weeks later in their November 30th press release, Moderna updated the previous report for a new efficacy calculation of 94.1% with 196 cases of COVID-19. In the control group, the number was 185 cases (0.012%) and 11 cases in the vaccinated group (0.00073%). Severe cases in the control group were 30 (0.002%) and included 1 death (0.000067%), compared to the number of U.S deaths (269,000 as of December 2020) in a population of 328.2 million: 0.00082%, the latter number suggesting once again that the CDC's death rates from COVID-19 may be inflated, in this case by at least a factor of 12.

In the space of two weeks, the rate of infection in the control group had gone from 0.006 to 0.01; in the vaccinated group the number of cases had doubled, thus accounting for the decreasing efficacy reported. The severe cases in the control group had gone from 0.00073% in the first report to 0.002% in the second.

It all sounds very dramatic at first glance, but it may also be smoke and mirrors given the comparison of the percentages at the two time points in the two groups: The infection rate in the controls hovered around the level of influenza of a mild to moderate year, in this case the year 2018 to 2019. Using this year so as not to confuse any influenza cases with COVID-19, to get a rate of influenza infection in the US population (328.4 million of 0.01% (https://www.cdc.gov/flu/about/burden/2018-2019.html#:~:text=vaccination%20uptake11.-,Conclusion,2012%E2%80%932013%20influenza%20season1).

In the control group the severe cases had almost tripled, but were still a tiny part of the total. The only real bright spot actually here for Moderna is that their vaccinated group had no severe cases as yet. It is also important to keep in mind that these data do not reflect certain populations who may be included in a general vaccine program: pregnant women, infants, children, and adolescents.

One thing that may be emerging from these numbers is that they may actually show us the real percentage of the population at risk overall from COVID-19 at about 0.01%, as well as those who will become severely ill and/or die. But in order to save that 0.002% of the population, how many people would one have to vaccinate and what would be the tradeoff against possible adverse effects?

Looked at from a more skeptical perspective, both groups had a rough doubling of COVID-19 infection, which may lead to speculation that the vaccine does not actually prevent the disease but merely slows down its expression. Peter Doshi, an Associate Editor of the *British Medical Journal*, writing in a medical blog about the Phase 1 data (https://blogs.bmj.com/bmj/2020/11/26/peter-doshi-pfizer-and-modernas-95-effective-vaccines-lets-be-cautious-and-first-see-the-full-data/) urges: "Let's Be Cautious": Pfizer, Moderna Need to Release More Data to Back Up Claims of "95% Effective" Vaccines. Doshi states also the obvious:

> Let's put this in perspective. First, a relative risk reduction is being reported, not absolute risk reduction, which appears to be less than 1%. Second, these results refer to the trials' primary endpoint of COVID-19 of essentially any severity, and importantly not the vaccine's ability to save lives, nor the ability to prevent infection, nor the efficacy in important subgroups (e.g. frail elderly). Those still remain unknown. Third, these results reflect a time point relatively soon after vaccination, and we know nothing about vaccine performance at 3, 6, or 12 months, so cannot compare these efficacy numbers against other vaccines like influenza vaccines (which are judged over a season). Fourth, children, adolescents, and immunocompromised individuals were largely excluded from the trials, so we still lack any data on these important populations.

Doshi is right, of course, and his critiques equally apply to the efficacy studies of Pfizer which claimed a ratio of 162 COVID-19 infected people in the control group versus only 8 in the vaccinated group in a total of 44,000 people, 0.007% versus 0.00036%, both numbers remarkably close to those of the first Moderna report (Moderna TX, Inc 2020). He also raises the concern about the blinding in the study given that the adverse effects reported by actual vaccine recipients could have clued them to which group they were in and thus modified their behaviors.

Efficacy Data Claimed But Not Published

The truth is that we won't be able to independently review the efficacy data until they are provided in peer-reviewed publications, ideally with raw data supplied.

Efficacy data for Pfizer

Pfizer's combined Phase 1 and 2 data claimed high antibody titres after both doses with antibody levels rising higher after dose 2. In the later Phase 3 study, their calculations of efficacy of greater than 90+% were based on approximately 18,000 people in each of the vaccinated and control arms (and the nature of the placebo injection is still not known). In this report Pfizer claimed that after following for 2 months, 8 of the vaccine-treated group developed COVID-19 compared to 162 in the control group.

These ratios resemble those of Moderna and are the basis of their efficacy report. As it currently stands, at least from a regulatory viewpoint, such data allow Moderna and Pfizer, and no doubt eventually the other companies, to hype the efficacy of their vaccines while smoothly side stepping their actual dangers for potential short and long term adverse effects on account of novelties in this disease. In actuality, those who have been saying that COVID-19 infection is at about the same level as influenza seem to be correct.

Johnson and Johnson

From this company we receive more "science" by press release: they claimed 98% seroconversion but with no efficacy calculations as of October 4, 2020 (https://www.jnj.com/johnson-johnson-posts-interim-results-from-phase-1-2a-clinical-trial-of-its-janssen-covid-19-vaccine-candidate).

AstraZeneca

In a press release on November 23, 2020 the AstraZeneca company claimed: AZD1222 vaccine met primary efficacy endpoint in preventing COVID-19" the company claimed (AstraZeneca 2020; https://www.astrazeneca.com/media-centre/press-releases/2020/azd1222hlr.html):

> One dosing regimen (n=2,741) showed vaccine efficacy of 90% when AZD1222 was given as a half dose, followed by a full dose at least one month apart, and another dosing regimen (n=8,895) showed 62% efficacy when given as two full doses at least one month apart. The combined analysis from both dosing regimens (n=11,636) resulted in an average efficacy of 70%.

As it currently stands, at least from a regulatory viewpoint, data not peer-reviewed by persons outside the employ of Moderna (and Pfizer), and no doubt eventually the other companies, to puff efficacy of their vaccines while underestimating the dangers of the disease, as well as the potential adverse effects of their remedies for recipients of the vaccines. In other words, those who have been saying that COVID-19 infection is at about the same level as influenza seem to be correct, while the potential dangers from the vaccines remain clouded.

Could all of these calculations be wrong? Sure, they could be, but then we would also have to reject all of Moderna's claims of efficacy for their vaccine. You can't really claim both, at least not honestly. Could the number of infected persons change with longer surveillance? For sure, and this

seems to be happening, but so too do the efficacy data. We will only know in the future if Moderna keeps sending these updates.

What other evidence might suggest that this is not wrong? One thing that supports the above numbers is a recent report from Johns Hopkins University that came out in an article on November 22, 2020 in the student paper, *The Johns Hopkins News-Letter* titled, "*A closer look at U.S death rates due to COVID-19*" (https://www.jhunewsletter.com/article/2020/11/a-closer-look-at-u-s-deaths-due-to-COVID-19].[Appendix). The article was retracted by the university on November 27th for potentially providing "misinformation" (https://www.jhunewsletter.com/article/2020/11/a-closer-look-at-u-s-deaths-due-to-COVID-19).

In the original article, writer Yammi Gu (2020) interviewed the author of a study by the director for the Master's in Applied Economics, Genevieve Briand. Briand had presented her data in a PowerPoint webinar. In compiling the data, she had used CDC data from mid March 2020 to mid September. Her conclusion was that the impact of COVID-19 on mortality across all age groups had not changed from previous years. Oddly, what had changed was the cardiovascular death rates along with other diseases. Briand had wondered why this might be so and came to the conclusion that somehow some disease numbers put out might have been "misleading". Could Briand have been wrong in her analysis and conclusions? For sure. But how is it misinformation when a scientific report varies from an official narrative? The same sort of response, weaponizing the peer-review process with retractions, should hardly come as a surprise (Shaw 2020). The Briand material was judged as apostasy and the newspaper report got retracted by those in control. The November 27th retraction notice was quick to point out that "*Briand is neither a medical professional nor a disease researcher."* If they cannot dispute the facts, they can always attack the messenger.

As of this writing, the death toll in the US cited above was somewhere near 269,000 people or 0.00082% of the population; in Canada, it comes out to be 12,470 deaths in a current population 37,742, 154 or 0.00033. Are these numbers reliable and valid with respect to the named "COVID-19 pandemic"? Maybe not in a statistical sense, but surely for the families of the dead they are significant in the usual way. Comparisons between influenza epidemics of the past, however, and the present "COVID-19 pandemic" are both subjective and dependent on many factors that have to be taken into account. Shifting the diagnosis, how significant are the cases of Alzheimer's disease in the U.S, for example? Turns out these are 0.0177, thus involving vastly more "cases" than even the highest estimates of infected persons with SARS-CoV-2. Apart from the families of those impacted by Alzheimer's, together with the physicians and researchers working on the disease, does anyone really care all that much? No, but why not? Are Alzheimer's deaths less significant than those attributed, validly or not, to SARS-CoV-2? One notable difference is that there is no expectation on the part of the media and big pharma of a vaccine for Alzheimer's prevention.

All that taken into account, the efficacy data for COVID-19 vaccine results still say nothing about the safety record of recipients of the experimental vaccines of Pfizer, Moderna or the other companies in the race to capitalize on the pandemic.

mRNA Vaccine Safety Studies: Moderna

Moderna's Phase 1 safety data, produced in a two-volume report of 1,015 pages were released to Aaron Siri following a Freedom of Information Act (FOIA) request to the US Department of Health and Human Services. It is titled *Safety Summary Report, Phase 1, Open-Label, Dose-Ranging Study of the Safety and Immunogenicity of 2019-nCoV Vaccine (mRNA-1273) in Healthy Adults* and was published by Moderna on June 2, 2020. Data were derived from the post vaccine medical surveillance of 85 participants of both sexes divided into 7 cohorts. There were no controls, as is typical for such "safety" studies.

Distinct cohorts in small numbers

All participants received two injections of mRNA-1293, one on the first day, the second 29 days later. All patients were followed up by physician visits on days 1, 2, and 4 after each dose, and afterwards at 3, 6 and 12 months after the second dose. Forty-five of these 85 individuals, ages 18 to 55, were divided into 3 cohorts with dosages of 25μg, 100μg, and 250μg of the mRNA construct. There was also a 56 to 70-year old group with 20 people and one at more than 71-year old age group with the same numbers. These latter groups received only the 25μg or 100μg doses.

In the first cohort of 45 participants, 32 (71%) had some "possible" adverse reaction(s) to the vaccine. They ranged from "mild", to "moderate", or "severe". At 25μg, 5 of 15 had adverse events; with the 100μg group 10 of 15; and in the 250μg group 12 of 15 had an adverse reaction at some level. In the 56-70 age cohort, 14 of 20 (70%) had "possible" adverse effects; in the 71+ age cohort had 10 of 20 (50%) of participants had potential adverse effects.

Moderna physicians decide which observed reactions were caused by the vaccine

Moderna physicians then decided which of the "possible" adverse effects were really from the vaccine. How they did so was not clear from the report and without knowing these details there is not much point in trying to evaluate non-related from vaccine-related events.

In this mass of data there are some take away messages: First, as the dose of the mRNA increases, the percentage of real adverse vaccine events appear to go up, an outcome that is not really a surprise in any dose-response function. The higher adverse effects in the 250μg group is likely a reason that this dose was dropped in the Phase 3 trials.

Crucial groups were not studied

The second point is that there were so many moderate and severe reactions overall, an outcome that will be far from trivial if Moderna's vaccine is put out to the general population, including to groups not studied in this study, namely pregnant women, infants, children, and adolescents.

In general, small sample sizes, as in these Phase 1 safety data, are prone to suffer from potentially large errors in interpretation. Some of this may be resolved by Moderna's Phase 3 trials, which will likely not be available for review prior to the expected roll out of the vaccine in the last month of 2020.

Based on the results of Moderna's Phase 1 safety study and the above cited efficacy data, Moderna recently applied for a Emergency Use Application (EUA) for the mRNA-1293 vaccine from the FDA. The EUA guidelines can be found at this URL, https://www.fda.gov/media/142749/download and they include the following conditions for application for an EUA:

- The chemical, biological, radiological, or nuclear (CBRN) agent referred to in the March 27, 2020 EUA declaration by the Secretary of HHS (SARS-CoV-2) can cause a serious or life threatening disease or condition.
- Based on the totality of scientific evidence available, including data from adequate and well controlled trials, if available, it is reasonable to believe that the product may be effective to prevent, diagnose, or treat such serious or life-threatening disease or condition that can be caused by SARS-CoV-2. • The known and potential benefits of the product, when used to diagnose, prevent, or treat the identified serious or life-threatening disease or condition, outweigh the known and potential risks of the product.
- There is no adequate, approved, and available alternative to the product for diagnosing, preventing, or treating the disease or condition.

Pfizer has done the equivalent EUA to the British authorities based on their initial efficacy studies.

Safety Data from Pfizer

Two reports have come out on the safety of Pfizer's BNT62 mRNA vaccine. The first is by Mulligan et al. (2020; https://pubmed.ncbi.nlm.nih.gov/32785213/) published in July as a preprint (not yet peer-reviewed). The second was a Phase 3 safety and efficacy report (Pfizer and BioNTech 2020), not yet published, but put out to the FDA for EUA approval. This document was evaluated by FDA scientists. Let's look at each of those reports in turn.

Mulligan et al. on Phase 1/2

The study looked at 45 male and female participants, 18 to 54, in approximately equal numbers Safety and tolerability were followed for 14 days after the second of two doses: 10μg, 30μg; at 100μg there was only 1 dose. The groups are therefore small, particularly the placebo group (N=3 per dose group) and it is not clear what the placebo actually was.

Injection site pain was reported for all vaccine groups, some of it categorized as severe. Some placebo volunteers had minor localized pain at the injection site. The vaccine also induced fever in 75% of treated patients after the second dose with two participants experiencing high fever in the 30μg group. Some in these treated groups also experienced sleep disturbances, joint pain, headache, and fatigue. Also, lymphadenopathy (enlargement of lymph nodes) and four cases of Bell's palsy (inflammation of cranial nerve 7 (facial) were found in the vaccine groups versus none in the control group.

Pfizer's FDA Briefing document

Many of the same adverse effects were seen in the Phase 3 data as in the initial safety evaluation by Mulligan et al. The resulting tabulated Phase 3 data are summarized in their Tables 17/18 (18-55 age group and greater than 55 group, respectively) listing a range of adverse effects including fever,

fatigue, headache, chills, vomiting, diarrhea, new or worsened muscle pain, new or worsened joint pain, and lymphadenopathy (enlargement of lymph nodes). In a potentially serious twist, four cases of Bell's palsy were found in the vaccine groups versus none in the control group.

The latest interpretation of some of the adverse effects seen in the trials from both companies has all the flavor of trying to spin the outcomes to make them somehow seem like good results. Specifically, statements now coming out in the media quoting physicians is that any observed adverse effect simply shows that "the vaccine is working and your immune system is responding as it should". This might be true to some extent in that many conventional vaccines with live or attenuated viruses do have the capacity to create a mild version of the disease with the view that your immune system response will prevent a worse real response to a pathogen. This follows from Edward Jenner's original work and makes some sense. However, such cannot apply to an mRNA vaccine where no real infectious agent is present to give you the targeted disease.

The alternative explanation is not that the vaccine is effectively activating an immune response to fight a future COVID-19 infection, but rather that your body is responding to something toxic, and/or triggering an abnormal immune response, such as an autoimmune reaction. A suggestion of this comes from the Pfizer trials in which four of the vaccine recipients developed Bell's palsy, a weakness or even paralysis of the 7th cranial nerve pair (facial) that controls facial muscles. The impact on there is the result of inflammation that compresses the nerve. Bell's palsy has several triggers, including viral infection, and although it is usually temporary, it is not always so. These results, combined with higher levels of joint pain and headache in the vaccine recipients suggest that the mRNA vaccine used by Pfizer can have cartilage and neurological consequences in the CNS, both of which should alert us to the prospect that other longer-term consequences may arise with longer surveillance.

Pfizer also applied for, and received the equivalent EUA to the British authorities based on their initial efficacy and safety studies, both from Phases 1-3. Since then, their EUA equivalent from the UK and then a US EUA were granted before the New Year.

What Could Go Wrong with mRNA Vaccines?

In principle, not much, if we stay with the mainstream Crick model for DNA triggered protein synthesis. A laboratory created mRNA based on the genome of the COVID-19 virus should be simple: The injected mRNA now binds to ribosomes, the complex makes protein, and that protein is extruded from the cell to trigger the immune response. After this, the mRNA-ribosome complex is supposed to come apart, the mRNA is degraded and that's the end of it.

All good, and maybe apart from the adverse effects seen in both Moderna and Pfizer phase trials that's all there is to it.

What, however, if there is another, more accurate, model of how DNA transcription to protein works, one in which there are "recursive" feedback loops in what the Crick model considers to be a linear process, that is DNA to RNA to protein. What if instead, as in the Pellionisz (2008) model, feedback occurs at all levels: DNA to RNA and back, RNA to protein and back, and then protein back to DNA? Could the artificial mRNA have an impact on DNA? What then? It must certainly be

the hope — maybe prayer would be the better word — of the molecular biologists at Moderna and Pfizer that Crick was right and Pellionisz was wrong.

Insider Trading?

In a move that raised media and public eyebrows and even got the Securities and Exchange Commission involved (Derysh 2020; Durden 2020), executives at Moderna and Pfizer began dumping their shares as their press releases praised the emerging data and various health officials such Dr. Anthony Fauci, NIAID director and much of the corporate media piled on. As Children's Health Defense documented in a detailed evaluation of the COVID-19 pandemic (see the Children's Health Defense Team article in this issue of *IJVTPR* immediately following my article), such stock sales seemed to herald the foreknowledge of some greater plan. The CHD Team writes:

> … a few intrepid journalists have begun calling attention to Big Pharma's pandemic profiteering, even pointing out that "insiders at companies developing experimental vaccines and treatments . . . aren't waiting until they finish the job to collect their reward" (Wallack, 2020). An October piece in the *Boston Globe* cited the example of Moderna, one of the companies that has rushed a candidate vaccine into clinical trials (Wallack, 2020). It took Moderna a mere three weeks after Bill Gates' initial funding installment to send its first batch of experimental vaccine to research and patent partner, the National Institute of Allergy and Infectious Diseases (NIAID), leading to an immediate surge in share price of 28 percent (Lee, 2020; Loftus, 2020). By early April, Moderna's CEO had become an overnight billionaire, and by October he had sold nearly $58 million in stock (Tognini, 2020; Wallack, 2020). Meanwhile, Moderna's chief medical officer has been "systematically liquidating all of his company stock" — about $70 million — "in a series of pre-planned trades that have made him roughly $1 million richer each week" (Wallack, 2020). Thus far this year, company insiders have sold $309 million in stock versus under $2 million in 2019, fueling suspicion that they may be "downplaying possible obstacles to goose stock prices — and increase their personal profits" (Wallack, 2020). Also among those who sold Moderna stock options was Moncef Slaoui, the former Moderna board member and former GlaxoSmithKline executive who now heads up Operation Warp Speed (Rozsa & Spencer, 2020).

With all of the above, it is best to remember the quote usually attributed to Mark Twain: "If you tell the truth, you don't have to remember anything." How much more complex it seemingly becomes when one is trying to bolster a story built on a collection of almost absolute misinformation and collusion at a massive level?

The Trajectory of Past Viral Pandemics

According to various sources including the epidemiologists associated with the Great Barrington Declaration (Kulldorff, Gupta, Bhattacharya, et al. 2020) and other similar statements (for example the suddenly banned YouTube by renowned epidemiologist, Knut Wittkowski (Levine 2020), the world is handling the COVID-19 pandemic in a way that is not consistent with what has been learned, supposedly, from the history of such pandemics. Essentially, viral pandemics have predictable phases, an initial spike of disease cases, following by a dampening in cases and fatalities, in turn followed by later waves. Eventually, a viral pandemic achieves some sort of natural "herd" (make that "generalized") immunity with many of the infected never becoming in the least symptomatic. In June 2020, the WHO lead on COVID-19, Maria Van Kerkhove, announced that about 40% of "asymptomatic" persons could pass the virus to others, but within 24 hours of that statement she was forced to backtrack and admit that "in the real world" transmission from asymptomatic persons is actually a rare event, making thinking persons wonder if it can happen at all

(Boseley 2020; Spano 2020). One could indeed write a very long book about the various conspiracies alleged in the development or use of vaccines.

Triangulating the WEF and the "Great Reset"

The World Economic Forum (WEF) consists of a number of major corporations in various fields including the pharma, fossil fuels, technology, especially internet and artificial intelligence technology, and governments. Headed up by Klaus Schwab, a man who seems to firmly believe that the future of human kind lies in transhumanism (Harris 2020), WEF and the Bill & Melinda Gates Foundation money appear to be the main drivers of what has been called, by Schwab and others, the "Great Reset." The idea is that with COVID-19 as the "accidental" driving force, the pandemic has forced on humanity the need to restructure economies and societies and essentially rearrange the world.

For whose benefit are they proposing to do so? While the claim is made that the Reset will balance out economic and social inequalities, the actual reality is that it represents a push for greater economic wealth transfer and social control that only flows in one direction: upwards toward the collection of billionaires and their corporate interests at the top of the food chain. Watching various governments adopt the motto of the WEF, "build back better" is not only curious but betrays the extent to which a variety of politicians and governments have been utterly corrupted.

Some of those on the right tend to see in such measures a form of socialism or communism, but those who think so need to go back to Political Systems 101. What we have here with the Great Reset is nothing other than true fascism in its purest 21st Century form, not that much different than the Nazi version in the 20th Century, where major corporations and governments collude to take capital and decision making from below and concentrate it upwards into the hands of those already rich and powerful beyond measure.

What we are seeing with the "new normal" of COVID-19 is nothing more or less than a rolling global *coup d'état* created by those same special interests: "big data, big telecom, big oil and chemical, big finance and [the] global public health cartel" as documented here in this issue of *IJVTPR* (the next entry) by the Children's Health Defense Team (CHD). The role of the US military-intelligence apparatus in all of this cannot be ignored. As the CHD Team writes:

> The Pentagon's involvement in coronavirus-related efforts goes well beyond DARPA-funded research. Four-star General Gustave Perna is serving as chief operating officer of Operation Warp Speed alongside chief advisor Moncef Slaoui (see below). General Perna, in charge of U.S. Army Materiel Command, oversees the global supply chain for over 190,000 U.S. Army employees (HHS, 2020b). For the first time ever, the distribution of the eventual coronavirus vaccines is being planned as a "joint venture" between the CDC and the Pentagon, with the latter overseeing "all the logistics of getting the vaccines to the right place, at the right time, in the right condition…

As the article by CHD makes clear,

> In fact, global financial patterns and pronouncements point to a seismic overhaul of governance and financial systems that is playing out beneath the surface of the pandemic, reaching far beyond the health domain. These developments highlight a disturbing push for global technocracy — a form of centralized, expert-led control over resource production and consumption that the *Wall Street Journal* characterizes as "anti-democratic rule by elites who think they know better".

Who is driving the COVID-19 vaccine faster and further: this may shock some of the right wing types who may read this book, but it is none other than Moncef Slaoui, a former Moderna board member and GSK executive who is now in charge of Operation Warp Speed, the Trump administration's last effort to fast track vaccine development for COVID-19 (Thacker 2020).

And, citing *The State of Our Currencies* and other pandemic-related writings by Catherine Austin Fitts (see her on Hunter 2020; at https://robinwestenra.blogspot.com/2020/12/catherine-austin-fitts-on-great-reset.html) CHD quotes her as saying,

> [re the pandemic] emphasizes the importance of accepting that what is transpiring in the financial, tech, and biopharmaceutical sectors is interconnected. Part of this involves recognizing that the coronavirus vaccines currently dominating the headlines represent something likely to go far beyond the simple health intervention being held out by scientists and officials as a panacea. Instead, the evidence suggests that COVID-19 vaccines are intended to serve as a Trojan horse to transport invasive technologies into people's brains and bodies. These technologies could include brain-machine interface nanotechnology, digital identity tracking devices, technology that can be turned on and off remotely, and cryptocurrency-compatible chips.

Some may ask how such a conspiracy on such a grand scale could even be possible. It's actually not all that hard to imagine: Just think of the existence of any Mafia grouping or drug cartel. None of this is to say that all members of the cartel always get along or even like each other. None of what is happening is about like or dislike, rather it is all about power and control, plus wealth for those at the top, with less for those below.

Did it take a long time to put together this plan? Undoubtedly: the coordination of all the moving parts across sectors demonstrates with little doubt that the plan has been in the works for years, vastly longer than we have been led to believe as the rapid response to COVID-19. In brief, COVID-19 is not the cause of the Great Reset, merely the excuse for it to launch.

Viewed in this way, we can see that the actual reality of COVID-19 and COVID-19 vaccines, let alone other vaccines, is not the whole beast, merely the "pointy end of the spear', behind which stands an array of special interests pushing the spear forward for their joint and individual interests.

Triangulation is the process by which one finds a point or source by observing, and triangulating, from three separate locations. Where the vectors all converge is the source. We now are close to that. The Children's Health Defense Team has produced a remarkable evaluation (in the article following this one in this issue of *IJVTPR*) that lines up almost completely from the Weston A. Price Foundation (see https://www.westonaprice.org/health-topics/COVID-19-pursuing-truth-to-protect-our-liberties/) and the work of an independent journalist, Tessa Lena, in New York City (Lena 2020).

The location given is to Davos, Switzerland, headquarters of the WEF. The main commanders, in my view the truly "bad actors" here, are Schwab, Gates with his vast wealth, and some other "captains" of industry. The next level down members of the cartel who make the trains run on time, as with the Nazis to deliver the Jews and Roma to the death camps, are Tedros Greybryesus of the WHO, and Moncef Slaoui, mentioned above, the czar of Donald Trump's Operation Warp Speed, the program to promote vaccine candidates for COVID-19 as rapidly as possible and to distribute them across America. The other middle ranking entities are GVAP, CEPI, GAVI, the Wellcome Foundation and the Vaccine Confidence Project, all with Gates Foundation money in their pockets. Lower down the food chain are the myriad politicians and medical authorities who go along out of

ignorance or fear. And, of course, the mainstream media with its endless "psychic driving", are among this group and "only following orders", as well.

The Essential Role of the Captured Media in the Great Reset

In regard to the latter, the following transcript pretty much fill out all the details on how the media sees its role. We've already explored some of this in early chapters, but the following makes the nature of a captured media crystal clear, if it wasn't already. Speaking on the dangers of the "antivaxxers", Anthony Fauci carries on with the notion that such people are the true enemy:

> "We've got to do a considerable amount of community engagement and community outreach because there is this reluctance to get vaccinated.
>
> "I think it has to do with a lot of things that we can clarify. We're moving at a very rapid speed because of the urgency of the situation to develop a vaccine. We want to make sure that we're very transparent, that people appreciate that that speed is not compromising safety, nor is it compromising scientific integrity.
>
> "In addition, superimposed upon that is something that we have to face the reality of. It's true, it's unfortunate is the general anti-vaccine feeling among certain segments of our society.
>
> "Then there's the issue of people not wanting to be told what to do by authority. It's a bit of the anti-authority, anti-science approach in this country.
>
> "Those are all obstacles we have to take head on and we've got to make as much open, honest and transparent outreach to the community to convince them that getting vaccinated is for their benefit and the benefit of the community. And everything about the vaccine development and implementation will be transparent. (Fauci 2020)

Later, Fauci also appeared on PBS News Hour to discuss the rapid spread of the virus as well as to give hope to others about the development and eventual rollout of a future COVID-19 vaccine (PBS NewsHour 2020; July 17, 2020, PBS News Hour FULL INTERVIEW at https://www.youtube.com/watch?v=8Su5C_YefBU).

This is how some of the interview went, with Fauci responding to the PBS interviewer's questions:

> Fauci: "…Generally that would take a couple of years to get to that point. We're already there. We're going into a phase three trial at the end of the month. …
>
> When you're dealing with vaccines you can't guarantee things, but you can say based on the science and the way things are going, that I'm cautiously optimistic that we can meet that projection that I made months ago. And that is, by the end of this calendar year and the beginning of 2021, I feel optimistic that we will have a vaccine, one or more, that we can start distributing to people. Because if you look at the infections going on right now and phase three trials that are now starting at the end of the month, we could get a signal of safety and efficacy by as we get into the late fall and early winter.
>
> "If we do, by the beginning of 2021, we could have a vaccine."
>
> PBS: "Available to hundreds of millions of Americans?
>
> Fauci: "…Start making doses before you know that the trial works. Which means that if it works, you've saved months. …
>
> "We think we can start getting doses in the beginning of 2021, and the companies have said hundreds of millions of doses within that year. …"
>
> PBS: "Do you have a worry though Dr. Fauci that the anti-vaccine movement could interfere with this timetable?"

> Fauci: "Yes, I do because we have to admit and realize that there is an anti-vaxx movement that we've had to struggle with in this county. I believe the solution to that is community engagement and community outreach, to get people that are trusted by the community to go out there and explain to them the importance of not only getting engaged in the vaccine trial, but the importance of when the vaccine is shown to be safe and effective, to actually take the vaccine because it could be lifesaving and it certainly would be the solution to this terrible pandemic." (PBS NewsHour 2020)

The mainstream media is not the sole player by any means in the attempts to blame vaccine dissidents for a potential failure of the COVID-19 vaccine, or any vaccine for that matter. One of the main cheerleaders is Dr. Heidi Larson, who heads up the Vaccine Confidence Project which is replete with Bill & Melinda Gates Foundation money (LSHTM 2019). This is also the group that has joined the chorus claiming "antivaxxers" are a major hazard to public health.

On Mandates and Lawsuits

The restrictions on daily life imposed by politicians across the world are not abating. Indeed, they seem to be accelerating. What started out in the early COVID-19 days as full or partial lockdowns to "flatten the curve" and intended for several weeks, have largely been maintained. Some of these that may have been suspended in part or in whole when COVID-19 case loads seemed to be diminishing, have now come back in force in countries or regions facing a second or third wave of the disease. For example, here in British Columbia and other parts of Canada, we were experiencing gradual easing of social distancing and other restrictions, but when cases started to rise again, the public health officers began to panic yet again. Our own Dr. Bonnie Henry looked at the rising false positive numbers, ignored proper PCR testing methods and decided, as has become her wont, to treat British Columbians as social lepers. She has been allowed to do so care of Bill 19, an Orwellian piece of provincial legislation that allows her to dictate the lives of 4 million people. Here in B.C, many continue to see her as a heroine; increasing numbers think she is a petty bureaucrat whose power of the executive diktat has gone to her head.

Spain and Italy locked down hard again; Sweden also increased their relatively soft restrictions. Around the world, politicians, left, right and center clamor for much anticipated vaccine to arrive to deliver that most magical of imaginary beasts, herd immunity. For this reason, it seems virtually inevitable that mandates for COVID-19 vaccines will soon become the norm. These will be enforced not by overt force, but by escalating restrictions on those who won't comply, that is by taking away the "privileges" of people who are now awakening to the notion that this is all they really have ever had.

There are, however, some reasons for hope: The Great Barrington Declaration has now been signed by tens of thousands of academics and hundreds of thousand of lay people. This declaration made much of the official left apoplectic, decrying it as an alt-right attempt to punish poor people, an odd critique given that it states precisely the opposite. In brief, the idea is to allow most economic activity to go on as normal while ensuring protection for those most vulnerable to the disease (Kulldorff et al. 2020).

Lawsuits against governments have been filed in Canada and Germany and elsewhere and surely many more will follow.

And, resistance, covert and overt is growing to this world *coup d'etat.*

The Future of COVID-19 and Us

As this section is written and even later when it goes to press, it seems likely that we will still be dealing with this COVID-19 or other diseases like it. Now various entities from the Canadian Army to governments around the world note that there may be future outbreaks of COVID-19, or other viruses, that we need to be prepared to face for months or years to come. We are indeed on the brink of a "brave new world", in which lockdowns, social isolation and distancing and all of the societal changes now proposed will be with us, perhaps forever. And, we will be asked to remember, it is all for the greater good and that "we are all in this together", except of course for the billionaire class whose concept of being in this all together seems remarkably different from people trying hard each month to pay their mortgage. Now we are asked to protect seniors and those with various comorbid conditions. Next time the vulnerable might be children or those in their 20s or 30s. In this new world, there will always be new threats and new things for us all to fear and more things to sacrifice for the greater good.

The response to COVID-19 will have charted the path forward for government working with, or more likely on behalf, of industry to increasingly dictate what we do, with whom, how, and when. And if that is not the sort of world we were warned about by George Orwell and Aldous Huxley, I don't know what is: Trust Big Brother, don't question, don't listen to dissenting voices, do what we tell you for the greater good (and we, the government, will decide what that is).

We have arrived at that new world. It was ushered in by 9/11 and for 20 years, US society has been moved more and more toward a state of perpetual war for the benefit of the defense industry which has increasingly been partnered with big pharma. COVID-19 ushers in the attempted dominance of the pharma cartel teaming with global technocrats seeking control over the entire world. The former could imprison you at will, even kill you. The latter seeks to control your very existence from before birth until after your death.

The world has indeed been turned upside down by the confluence of COVID-19 and the proposed Great Reset. It is hard not to imagine that the latter inspired in principle, if not in reality the former. Regardless of how fatalistic many of us seem to be in the face of the events of 2020, there is always the hope for resistance to the WEF, Bill Gates, and to the other corporate henchmen who may have made this all possible. Some of these options for resistance and renewal are discussed in my book and some useful suggestions are made here in this issue of the *IJVTPR* in the second entry by James Lyons-Weiler.

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