A Pragmatic Perspective on COVID-19

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Written 5/17/20, last updated 10/14/21

We need to separate hysteria, propaganda and conspiracy theory from reality so we can gain a pragmatic perspective on the current COVID-19 pandemic caused by the SARS-CoV-2 virus…

This paper was originally written in early May 2020 and has been updated regularly since then. I have left historic text to provide you with the historic context. The basics have not changed much while the accumulated statistics have continued to change significantly as you would expect. Dates are provided along with the referenced numbers to assist you in keeping things straight. New information was integrated as it was uncovered. Conclusions are based on research findings – and have changed over time as new information has become available – as should be the case. I hope you find this paper educational.

There were 704 thousand reported COVID-19 deaths in the US as of October 1, 2021 – a per capita death rate of 0.213%. This number has serious issues, as I will explain later, but I will use it because it is the generally accepted published number.

This paper presents a lot of information. Although I have a background in emergency medicine, microbiology, virology and infectious diseases, and I strive for demonstrable accuracy, you should be skeptical. As one teacher told me: Don't believe it because I said it – do your own investigation and prove it to yourself.

The scientific method can be broadly described as observe, hypothesize, test, repeat. You make observations through whatever means to gather knowledge of the world around you. Then you form a hypothesis that tries to explain your observations. Then you test your hypothesis to see if it is correct – the result of your testing becomes a new observation and the process is repeated. Note that when you are testing your hypothesis, you are looking for tests that will prove your hypothesis false. Thus, you are always questioning what you think is true.

The most recent update to this paper is available at the following link – pay attention to the capitalization – feel free to distribute this paper to other interested people:

https://www.HdsSystems.com/Articles/COVID-19Perspective.pdf

Introduction to Virology

A good place to start this discussion is with a little education in virology. Columbia University offers a FREE introduction to virology – covered in 26 lectures. The course is very good and is highly recommended. The class slides are provided on the class website along with links to the lectures on YouTube. The most recent course was taught in early 2020. Here is the link to the course:

https://www.virology.ws/course/

Even if you only understand 5% of what the class covered, it would be well worth your time to sit through the class. So, turn off the TV and give the social media sites a rest – take the course – watch the lectures.

Historic Pandemics

A pandemic is an epidemic that has a very large geographic distribution over a relatively short period of time – perhaps even a worldwide distribution over a period of a few months. Pandemics tend to be a relatively recent phenomenon made possible by the availability of rapid long-distance travel. In earlier times, limited travel options tended to constrain how rapidly an epidemic could spread – generally preventing epidemics from becoming pandemics.

You should take a look at the major historic pandemics – I will use the CDC's (United States Centers for Disease Control and Prevention) data:

https://www.cdc.gov/flu/pandemic-resources/basics/past-pandemics.html

The big recent pandemics were:

1918: H1N1 influenza – killing an estimated 675 thousand people out of a US population of 105 million, killing roughly 0.64% of the US population. Scaled to the current US population (330 million), we would have to kill 2.1 million people to match the same per capita death rate.

1957: H2N2 influenza – killing an estimated 116 thousand people out of a US population of 172 million, killing roughly 0.07% of the US population. Scaled to the current US population, we would have to kill 222 thousand people to match the same per capita death rate. That line was crossed around October 19, 2020 based on published data – but the published data has problems, as I will discuss later.

1968: H3N2 influenza – killing an estimated 100 thousand people out of a US population of 206 million, killing roughly 0.05% of the US population. Scaled to the current US population, we would have to kill 160 thousand people to match the same per capita death rate. That line was crossed around August 6, 2020 based on published data – but the published data has problems, as I will discuss later.

These were not the only significant epidemics around the world. There were many other serious epidemics such as Bubonic Plague, Ebola and HIV/AIDS. And there are likely many more significant epidemics that have occurred throughout history that we don't know about. The three flu epidemics cited above just escalated to what might be called pandemic status, killed a lot of people and then receded into the background after a sufficient percentage of the population had been infected and recovered from the disease.

Note that the killed percentage given above is for the entire population – the per capita death rate. However, not everyone in the population got the disease. Most estimates are that only 50% of the population got each disease. Thus, the percentage that died from the disease – the infection fatality rate – is estimated as roughly twice the per capita death rate provided – i.e., 1.28%, 0.14% and 0.10%, respectively.

Viruses were unknown in 1918 and vaccinations for bacterial infections were just being developed. The terms flu and influenza were generic terms at the time that covered many illnesses of unknown origin. Thus, there are multiple hypotheses about what actually happened during the 1918 flu pandemic. Although a detailed analysis is beyond the scope of this paper, I will summarize two very different hypotheses for your consideration. The 1918 influenza pandemic is generally thought to have started at or around Ft. Riley, Kansas in the US – in spite of the Spanish Flu name. Feel free to research this subject in detail and draw your own conclusions.

The first hypothesis is the generally published narrative – that a new strain of H1N1 influenza appeared, perhaps from a local farm and due to military troop movements during World War I, the new influenza virus was spread worldwide. This is the narrative on the CDC web site and is how I labeled the 1918 pandemic above.

The second hypothesis is that the experimental bacterial meningitis vaccine being administered at Ft. Riley in early 1918 resulted in flu-like symptoms and contagious individuals – the start of the pandemic. The bacterial meningitis vaccine and many other bacterial vaccinations were then administered to troops worldwide and then to the general population following the war, resulting in tens of millions of sick and dead people. One study of around 9000 flu victim autopsies showed that 93% of those autopsies showed bacterial infections inconsistent with viral infections – strongly suggesting a virus was not what drove the pandemic.

I was too young to remember the 1957 pandemic. However, I was in junior high school during the 1968 pandemic. There was no hysteria. The pandemic was only occasionally covered in the news. No one was very concerned. Parents and school officials did not even ask us to wash our hands more often. When people got sick, they mostly stayed home.

To be fair, COVID-19 (Coronavirus Disease of 2019) is not the flu. They are two very different diseases and the mechanisms for infection and reproduction are different.

Flu, like most other viral respiratory infections, tend to be seasonal – peaking in the winter months and being subdued during the summer months. Thus, if a flu pandemic spans multiple years, you expect to see a large winter peak each winter. The reason for this seasonal peaking behavior is not known but vitamin D deficiency, low humidity promoting aerial spread and indoor congregating have been hypothesized.

COVID-19 has shown no signs of being seasonal so how well the public follows appropriate hygiene practices will be the controlling factor for where and how high the peaks are. However, after a year or two, COVID-19 may well start showing seasonal peaks similar to other respiratory viruses.

It is important to emphasize that the viruses that caused the three prior pandemics are still out there – in one form or another. Like all RNA viruses, they are constantly mutating. Thus, a significant percentage of seasonal flu is attributed to the descendants of those prior pandemic strains. SARS-CoV-2 will join the list after this pandemic. Like so many viruses before it, SARS-CoV-2 will become endemic – it will become common and circulate throughout the population – and our immune systems will learn how to deal with it.

Kids continue to be born and those kids present a new opportunity for older viruses to spread. And people travel from place to place and take their viruses with them and thus new populations are exposed to different viruses. Some percentage of people will be reinfected with a newer variant but those infections tend to be mild compared to previous infections – because the immune system learns and adapts.

I should also point out that the annual winter cold and flu season is caused by lots of different respiratory viruses – hundreds of them – various strains of rhinovirus (the most common of the common cold viruses, believed to be responsible for roughly 50% of all colds), influenza virus (flu), common coronavirus, respiratory syncytial virus (RSV) and human metapneumovirus (HMPV) – to name a few. These strains are constantly mutating into new strains and your immune system is constantly adapting to them. Such is life on Earth.

A good question to ask is: What is the best way to transition from a new epidemic or pandemic disease to an endemic disease?

SARS-CoV-2

The SARS-CoV-2 virus (Severe Acute Respiratory Syndrome Coronavirus 2, originally called the Wuhan Virus – the first documented outbreak taking place in Wuhan, China) is an RNA virus – where RNA makes up the genetic code for replication. RNA viruses are very common. For instance, rhinovirus and influenza

(flu) are RNA viruses. SARS-CoV-2 and rhinovirus are positive strand RNA viruses while influenza is a negative strand RNA virus.

The smaller RNA viruses mutate constantly because their primitive structure has less capability to detect and repair damaged RNA sequences and are therefore more susceptible to random mutations. That said, SARS-CoV-2 is thought to mutate much less often compared to influenza. Under normal conditions, the vast majority of the mutations result in non-functional or less virulent forms of the virus. Viruses tend to become more infectious but less harmful over time. This is due to the nature of Muller's Ratchet and evolutionary pressures as viruses mutate. It is rare for a virus to mutate to a more harmful form under normal conditions – but it can happen. I will note that you can use gain-of-function procedures and vaccines to encourage viruses to mutate into more harmful forms.

If you would like to see the family tree for SARS-CoV-2 or some other well-known viruses, take a look here:

https://nextstrain.org

The SARS-CoV-2 virus is covered with glycoproteins that give the virus a spiked appearance under high magnification. These "spike" features are commonly referred to as spike proteins. Viruses of this type are commonly called coronaviruses due to the spiked appearance – corona translates to crown.

There are currently seven known coronaviruses that infect people. Four of these coronaviruses are common – causing common colds – and are estimated to cause a significant amount of annual viral respiratory illnesses – in the range of 20% to 30%, with rhinoviruses, influenzas (flu), respiratory syncytial virus (RSV) and human metapneumovirus (HMPV) making up most of the rest. The other three coronaviruses are SARS-CoV-1 (2003), MERS-CoV (Middle East Respiratory Syndrome Coronavirus, 2012) and SARS-CoV-2 (2019).

The SARS-CoV-2 virus infects a cell through a process called endocytosis. A spike protein on the SARS-CoV-2 virus attaches to an ACE2 cell receptor. ACE2 (angiotensin converting enzyme 2) is often pronounced Ace Two. After a SARS-CoV-2 virus spike protein attaches to an ACE2 receptor – think lock and key, the cell brings the virus particle into the cell – at which point the viral replication process can begin. The actual process of receptor binding is a lot more complicated and involves cell signaling, but this simplistic explanation of receptor binding is sufficient for our needs. You should keep in mind that cell receptors are part of a cell's signaling system, which is a part a cell's regulatory system, the details of which are well beyond the scope of this paper.

The SARS-CoV-2 spike has a special configuration that allows SARS-CoV-2 to be more infectious than other coronaviruses – and allows it to infect more organs and the nervous system. The special configuration is referred to as a furin cleavage site.

It is well beyond the scope of this paper but I mention it here so you know that it exists and can research it further if desired. The configuration of this cleavage site has implications pertaining to the origins of this virus.

Although the upper respiratory system has a significant concentration of environmentally exposed ACE2 cell receptors, many other organs around the body also have ACE2 receptors and are susceptible to infection. Thus, it is possible for a COVID-19 infection to start in the respiratory system and then spread through the circulatory system to other organs of the body. This is why COVID-19 patients can exhibit such a wide range of symptoms. The extent of symptoms and damage to body systems can vary dramatically from one person to the next. Your overall health – especially your immune system status – has a huge bearing on how much damage will be done.

Research published by April 2021 shows that the SARS-CoV-2 virus spike protein is pathogenic (disease causing) all by itself. It can cause cellular damage by down regulating ACE2 and consequently inhibiting mitochondrial function – mitochondria being the primary energy supplier within a cell. The spike protein can also activate platelets, which can induce blood clotting. COVID-19 is known to cause extensive damage to the vascular system in some people. But why this appears to only happen in some people is not known.

Other receptors may also play a part in SARS-CoV-2 virus infections. Research shows that the SARS-CoV-2 virus binds to NRP1 (neuropilin-1) receptors, which are abundant in the olfactory epithelium found within your nasal cavity and may explain why many people with COVID-19 suddenly lose their sense of smell. Research strongly suggests the SARS-CoV-2 virus binds to ICAM3 (intercellular adhesion molecule 3) receptors found in alveolar and bronchiole epithelial cells and may explain bronchiole mediated silent hypoxemia symptoms but further research is needed to confirm this. Research suggests that integrins (transmembrane receptors) may be a possible binding site and may be the cause of vascular and blood clotting issues but further research is needed to confirm this.

R_0 (capital R, subscript zero) is the basic reproduction number – the measure of how infectious a virus is – i.e., how easily the infection can spread. The SARS-CoV-2 virus (which causes COVID-19, the disease) is believed to have an R_0 of between 2 and 3. That means you need to infect 50% to 70% of the population before the virus stops spreading on its own. Thus, if we take the lower infectivity percentage, you have a roughly 50% chance of acquiring COVID-19 over the next 24 months. There's no need to get depressed – I'm just being pragmatic here. But like so many other diseases you get during your life, you are very likely to make a full recovery.

Note that R_0 is a statistical concept – it is not a constant and is affected by environmental factors. It can go up in a population with poor nutrition or go down in a well-nourished population. It can go up under conditions of squalor or down with cleaner conditions. It can be higher in a society with a lot of physical

interactions or lower in a society with less physical contact. It can be higher in a population that has never been exposed to a similar disease agent or lower in a population that has previous exposures to related diseases. And most importantly, it goes down over time as people are infected and recover – thus becoming immune, leaving fewer vulnerable people to become infected.

I will be using the lower R_0 (infectivity) value of 2 throughout this paper and thus the corresponding requirement to infect 50% of the population before the virus stops spreading on its own. If we use the higher value of 3, that corresponds to a requirement to infect 70% of the population before the virus stops spreading on its own. Notice that the higher infectivity results in 40% more people being infected. As a result, you would expect any associated death count to also increase by 40% because the death rate is assumed to be constant. It is left as an exercise for the reader to appropriately scale any guesstimated death counts to the higher value.

By the end of 2020, a few apparently more infectious strains of COVID-19 were documented to be spreading throughout the world population and designated B.1.1.7 (Alpha, UK variant), B.1.351 (Beta, South Africa variant) and P.1 (Gamma, the Brazil variant). In April 2021, B.1.427 and B.1.429 (Epsilon, California variants) were designated. In May 2021, B.1.617.2 (Delta, India variant) was designated. These variants are now classified by the CDC and WHO as "variants of concern" but were named and followed long before that designation was given. The WHO started assigning the Greek letter to significant variants in spring 2021.

The designation as a variant of concern has to do with transmissibility and virulence. Thus, it may now be more appropriate to use the R_0 value of 3. However, when this paper was written, the R_0 value of 2 seemed most appropriate and is still used throughout this paper.

The SARS-CoV-2 virus is referred to as a novel virus. That is, the SARS-CoV-2 virus is new to humans. But just because this particular virus is "new" to us is no reason to think it does not have similarities to other viruses as far as your immune system is concerned. Remember, there are 4 very common coronaviruses that play a significant role in the annual cold and flu season. The fact that the vast majority of people who get COVID-19 make a full recovery with no long-term issues is a testament to the effectiveness of your immune system. It is estimated that roughly 80% of people who get COVID-19 have mild symptoms.

The closest known relative to the SARS-CoV-2 virus comes from bats in central China. But that virus does not infect people. There have been two main hypothesized routes from bats to people.

The first hypothesis is that one or more zoonotic changes took place through intermediate species in the wild that resulted in an infected animal at the Wuhan wet market that infected people. To date, no evidence has been produced to support this hypothesis.

The second hypothesis is that the bat virus was being studied at the Wuhan Institute of Virology, where the lab was working on gain-of-function research that resulted in a human infectious virus and there was an accidental viral release around late August to early September 2019 that resulted in infected people. Evidence continues to mount for this hypothesis.

It now appears that SARS-CoV-2 was active in Wuhan during the Military World Games, which took place in Wuhan, China during October 18 to 27, 2019 and involved roughly 9,300 military athletes from around the world. Reports following the games indicate that a significant number of athletes and other team members became ill with reparatory ailments during and following the games. Assuming these ailments were COVID-19, these people spread COVID-19 throughout the world when they returned home at the end of October 2019.

I will cover a third hypothesis when I look at the long patent history of coronaviruses. A detailed analysis of these hypotheses is beyond the scope of this paper.

COVID-19

SARS-CoV-2 is a virus. COVID-19 is a disease that is caused by SARS-CoV-2. More accurately, COVID-19 is an amorphas collection of clinical symptoms – but only if you can directly link those symptoms to SARS-CoV-2.

The difficulty comes when you try to link SARS-CoV-2 – the virus – to COVID-19 – the clinical symptoms.

As I have already pointed out, there are hundreds of reparatory viruses that produce similar clinical symptoms – such as fever, cough, sneezing, sore throat, nausea, diarrhea, achiness and lethargy. So, if you have some collection of these clinical symptoms, which one of the hundreds of reparatory viruses do you actually have? And more importantly, does it actually matter?

I will return to this important topic later.

Herd Immunity

There were no viral vaccines to inoculate the population during the three prior pandemics and thus those pandemics ran their course through the population unhindered over a roughly 2-year period. The three prior pandemics died out on their own when a sufficiently high percentage of the population had become infected and recovered from the disease – and thus become immune. There is no reason to believe this pandemic will be any different. It's the way infections work. This is how Nature develops "herd immunity." What doesn't kill me makes me stronger.

Herd immunity is a statistical concept. It is the point at which a disease is no longer able to spread efficiently through a population – when the number of susceptible people is low enough to prevent epidemic growth. The distribution of susceptibly to a disease within the population is not statistically even. Thus, herd immunity in one population may be different from herd immunity in the next population. And there may be "veins" of susceptibility that run through an otherwise unsusceptible population. Looked at another way, herd immunity is when R_0 drops below 1 within a particular population.

It is worth pointing out that immune response varies tremendously from one person to the next. And an individual's resistance to infection also varies significantly over time. Although a lot is known about the immune system, there is a tremendous amount that has yet to be discovered. The immune system is capable of remembering past diseases in multiple ways but it can also loose that memory over time. How and why this happens is unknown. One thing we do know is that the single biggest determiner of the immune system's ability to respond is lifestyle – nutrition, exercise, sleep, social well-being, exposures to environmental toxins and the like. Lifestyle also includes past challenges to the immune system – i.e., the immune system's education process. There is no substitute for a well-maintained and functioning immune system.

Although medical technology has come a long way, there is no evidence that it is possible to develop, test and deploy a new vaccine for SARS-CoV-2 (COVID-19) in 12 months – or even 18 months. Thus, the scenario with the highest probability is that this pandemic will run its course through the population before a vaccine can be effectively deployed. Given the relatively low death rate from COVID-19 in healthy people, allowing herd immunity to develop the old fashion way should not be a problem.

Vaccines and Pseudo-vaccines

A vaccine is a biological preparation that provides active acquired immunity to a particular infectious disease or toxin – typically made from a weakened or killed microbe or virus, its toxins or one of its surface proteins. A gene therapy is a biological preparation that seeks to modify or manipulate the expression of a gene or to alter the biological properties of living cells for therapeutic use. Both of these biological preparations are referred to as biologics.

A biologic needs to accomplish two things to be classified as a vaccine: 1) ensure that the vaccinated person is rendered immune to the disease and 2) inhibit transmission of the disease from the vaccinated person to other individuals.

To help you keep these important distinctions in mind and because the media uses the term vaccine even when a biologic fails accomplish the goals of a vaccine, I will use the term pseudo-vaccine any time a biologic is actually a not a vaccine but is

commonly referred to as one – using just the word vaccine by itself would imply something that is not true.

By December 2020, there were many different potential vaccines and pseudo-vaccines undergoing trials throughout the world – over 50 SARS-CoV-2 vaccine and pseudo-vaccine candidates were being worked on. How many of those vaccines and pseudo-vaccines will make it to large-scale distribution in a timely fashion remains to be seen. And what percentage of the population will accept those vaccines and pseudo-vaccines also remains to be seen.

The FDA (Food and Drug Administration) issued an EUA (Emergency Use Authorization) for the Pfizer-BionTech biologic on December 11, 2020 and a second EUA for the Moderna-NIAID (National Institute of Allergy and Infectious Diseases, part of the US National Institute of Health) biologic on December 18, 2020. Both biologics require two doses 3 weeks apart. Both biologics use mRNA (messenger RNA) technologies – mRNA wrapped in a nano lipid particle – and are similar in structure and how they work. They work by invading cells and using the mRNA to force your cells to manufacture SARS-CoV-2 (equivalent) spike proteins.

The FDA issued an EUA for the Janssen Biotech (Janssen Pharmaceutical Company of Johnson & Johnson) biologic on February 27, 2021. This is a single dose biologic. This biologic works by using a genetically modified adenovirus to invade your cells – the modified genetic code in the adenovirus forces your cells to manufacture SARS-CoV-2 (equivalent) spike proteins.

As you can see, all three of these biologics seek to alter the biological properties of living cells by causing the cells to manufacture SARS-CoV-2 (equivalent) spike proteins and none are exposing the body to the infectious agent, toxins or surface proteins. Further, none of these biologics were designed or tested to impart immunity or inhibit transmission of the disease. Thus, these biologics are more accurately called gene therapies and not vaccines. Hence, I will be using the pseudo-vaccine term for them.

These pseudo-vaccines are not "approved" but are actually "authorized" "investigational" drugs – i.e., experimental. The EUA – emergency use authorization – is an authorization to use an investigational (experimental) drug – it is NOT an approval of the drug's safety or efficacy. This is an important legal distinction. And it is important to note that the pharmaceutical companies and people administering these pseudo-vaccines are protected from liability for any adverse events caused by these pseudo-vaccines under federal law (see the Public Readiness and Emergency Preparedness Act of 2005 – the PREP Act) – the required official public health emergency has already been declared – and is being reauthorized every 90 days.

The EUA presupposes there is a very high death rate (or some equally serious consequence) to justify the experimental use. The EUA also presupposes that there are no other appropriate treatments available. In the case of SARS-CoV-2, we will

see that neither of these conditions has been met and thus it can be argued that none of these pseudo-vaccines were justified in receiving an EUA.

Please remember that these pseudo-vaccines do not confer immunity to SARS-CoV-2. These pseudo-vaccines were not even tested for an ability to confer immunity. Thus, these pseudo-vaccines do not stop the spread of SARS-CoV-2. These pseudo-vaccines were only designed and tested to reduce the severity of COVID-19 and as we are about to see, the studies show there is only a marginal improvement in severity.

Let's now go to the briefing documents submitted to the FDA – the same documents the FDA used to grant the pseudo-vaccine EUAs.

The Pfizer-BionTech pseudo-vaccine briefing document shows 170 total illnesses out of 34,922 test subjects. The RRR (Relative Risk Reduction) shown is 95% with few reported serious side effects after a two-month phase 3 clinical trial. The ARR (Absolute Risk Reduction) was only 1% and there was no statistical difference when it comes to the number of people who died.

The Pfizer-BionTech briefing document also talks about a group of 3,410 suspected (symptomatic) but unconfirmed COVID-19 cases. Since these cases – 1594 vaccinated and 1816 placebo – were not confirmed, they were excluded from the final analysis. I will discuss the issues of PCR testing later.

The Moderna-NIAID pseudo-vaccine briefing document shows 95 total illnesses out of 27,817 test subjects. The RRR shown is 94% with few reported serious side effects after a two-month phase 3 clinical trial. The ARR was only 1% and there was no statistical difference when it comes to the number of people who died.

The Janssen Biotech-J&J pseudo-vaccine briefing document shows 468 total illnesses out of 39,058 test subjects. The RRR shown is 67% with few reported serious side effects after a two-month phase 3 clinical trial. The ARR was only 1% and there was only a slight statistical difference in the number of people who died. These numbers and the EUA were based on the 14-day dataset. If you use the 28-day dataset, the numbers are worse and there was no statistical difference when it comes to the number of people who died.

There is an issue with "intent to treat" versus "per protocol" when analyzing the trial data. The difference is very important. Both mRNA pseudo-vaccine trials used the per protocol analysis method. If you require 2 shots to complete the protocol and someone refuses the second shot due to a severe adverse reaction following the first shot, that severe adverse reaction is never reported in a per protocol analysis because the patient failed to complete the protocol. If you had used the intent to treat analysis method, all of those severe adverse reactions that resulted in people dropping out after the first shot would have been reported. Like using RRR instead

of ARR, it makes your pseudo-vaccine look much better (safer and effective) than it really is.

The clinical trials for the three EUA pseudo-vaccines used the severe infections with COVID-19 trial endpoint. This is a disease-specific surrogate for an increased health end point – and a lousy surrogate at that. Most fields of medicine have abandoned disease-specific trial endpoints for the more appropriate all-cause mortality or morbidity end point. In other words, does the drug make my life better overall – not just in one small area of my life to the detriment of another area of my life? If you analyze the trials using the more appropriate all cause severe morbidity, none of these pseudo-vaccines shows an improvement in overall health.

By the end of 2020 – in violation of the pseudo-vaccine clinical trial parameters and timelines – all three pseudo-vaccine manufacturers unblinded their studies and offered the placebo groups actual pseudo-vaccine. Thus, you no longer have a double-blind placebo-controlled study and thus the quality and value of any long-term results are called into question. Without a placebo arm, you can easily hide side effects or blame them on something else.

The short length of the trials can't address the issues of long-term efficacy or safety. Given the tiny absolute differences between the pseudo-vaccine and placebo arms of all of the studies, there should be no expectation of any significant efficacy overall. The long-term efficacy and safety testing will be run using the general population. Unfortunately, the long-term tests will not be double-blind placebo-controlled. Time will tell the tale.

You should note that the FDA did not require stringent post-vaccination data collection and evaluation as part of the EUAs – even though they had the authority to do so. Without stringent post-vaccination data collection, there is no way to evaluate the safety of these pseudo-vaccines, let alone the efficacy of these pseudo-vaccines. In order to identify danger signals, you need to collect good data and then you need to evaluate the data. There are NO safety review boards for the pseudo-vaccines.

The pseudo-vaccine rollout plan is to vaccinate everyone, whether they need one of the pseudo-vaccines or not. No attempt is being made to determine who may actually benefit from the pseudo-vaccines. After all, if you have already had COVID-19, there is no benefit to getting the pseudo-vaccine. If there is no benefit to the pseudo-vaccine, there is no point incurring the risks that go along with getting the pseudo-vaccine. Current data strongly suggests that the risk from adverse events is 2 to 4 times higher if you have already had COVID-19.

You will be required to sign a consent and waver form before receiving one of the pseudo-vaccines. Your signature says that you are giving informed consent – are you sure you are being fully informed before freely giving your consent? Or are you being tricked or coerced or bribed into signing without being told the actual risks?

Do you realize you are waving all rights to sue anyone associated with the pseudo-vaccine? Do you realize you are enrolling in a long-term medical study at the same time? Be sure to read the fine print before you sign.

If you die or are hospitalized due to adverse reactions from the pseudo-vaccine, your insurance company may not cover your expenses as an experimental drug trial participant. Check before you sign.

Although many attempts were made over the last two decades to create an approved coronavirus vaccine, none has been able to get past the animal testing stages. The problem? Adverse events with the animal test subjects related to antibody-dependent enhancement (ADE, paradoxical immune enhancement, pathogenic priming) – resulting in exaggerated inflammatory responses after exposure to the wild coronavirus – resulting in dead animals.

All indications are that no animal studies were run prior to the human trials for the currently available EUA pseudo-vaccines – there are no published animal studies.

The SARS-CoV-2 mRNA pseudo-vaccines will be the first ever administered to humans – and that is after their checkered development history – and that is without any published animal study data – and that is after bypassing the normal testing and approval processes – and that is also after giving the pharmaceutical companies complete immunity through the PREP Act and a declared public health emergency. Do you really want to be a guinea pig under these circumstances?

Data for adverse SARS-CoV-2 (COVID-19) vaccination events is available from VAERS – the Vaccine Adverse Event Reporting System. VAERS was created by the US government as part of the National Childhood Vaccine Injury Act of 1986 (NCVIA). The NCVIA provided vaccine manufacturers complete liability protection for vaccines on the childhood vaccination schedule and created a vaccine injury arbitration system – commonly referred to as Vaccine Court – to oversee limited payments for vaccine injuries – but only if your particular vaccine injury is officially recognized – and the debate continues to this day about vaccine injuries that have been excluded from the list.

VAERS data is gathered and published as a joint effort of the FDA and CDC. The data is available using the CDC Wonder database interface at:

VAERS.hhs.gov

The interface is a bit cumbersome but if you read the instructions, you should be able to figure it out. It is easy to get a misleading result if you don't understand the database fields and do not select the correct criteria. To get the best results, on the request form, 1) Group by Sex, 2) All Symptoms, 3) search for COVID and select COVID19 (COVID19 Vaccine), 4) All Locations, All Ages, All Genders, 5) Event Category: Death and leave everything else as defaulted. You can modify that result

by returning to the request form and changing the parameters – for instance, you can limit the data to just deaths reported in the US or use All Events to find out how many COVID-19 vaccination adverse events have been reported.

You can also use Med Alerts – it is the same VAERS data with a cleaner and more sophisticated interface for searching, extracting and displaying the data:

MedAlerts.org

You should note that the MedAlerts.org data is typically one week behind the VAERS.hhh.gov data as it takes time to copy and validate each updated database. The database date is displayed at the top of the Med Alerts search page.

I only use US reports (the default for VAERS.hhs.gov) as the CDC vaccine data I am using is only for the US. The VAERS site explains that there is a 4-to-6-week delay from when an adverse event happens to when it will likely be reported in the database. It should also be noted that submissions to the VAERS database are voluntary and thus the data is only a subset of all adverse events. Finally, these reports are not officially followed up to determine if there is a causal relationship between the vaccine and the adverse event reported – clearly the person making the report thought there was a causal relationship – the vast majority of reports being submitted by doctors and nurses.

There is a very easy way to get an overview of the VAERS COVID-19 vaccine death data by using OpenVAERS:

OpenVAERS.com

OpenVAERS uses the same VAERS data but provides a convenient display and breakdown of deaths, including cause of death, sex, age and a graphic presentation of days to onset following the vaccine. Note that this interface includes deaths for all locations in the VAERS database – including deaths outside the US and reports with unknown locations – so their statistical totals will be significantly higher than the numbers displayed by the VAERS.hhs.gov website using the default settings.

Take a look at the OpenVAERS graphs showing days to death following a COVID-19 pseudo-vaccine – they show a strong temporal relationship to the pseudo-vaccine administration. Thus, these deaths are very likely to have been directly associated with the pseudo-vaccine. The deaths peak on the day after the shot and then drop in an asymptotic fashion. On July 30, 2021, we see 14% of deaths took place on the same day as the shot, 29% by the day after, 36% by 2 days after, 41% by 3 days after, 45% by 4 days after and 48% by 5 days after. The death rate does not drop below 1% per day until 16 days after the shot. This is a strong indication that these deaths were directly related to the vaccinations – they were not coincidental or caused by unrelated events.

Further, OpenVAERS shows that on July 30, 2021, there had been 12,366 COVID-19 pseudo-vaccine related deaths reported for 2021 compared to 12,532 total deaths. Thus, COVID-19 pseudo-vaccine related deaths represent 98.7% of all reported vaccine related deaths for 2021 – and that is after only 7 months.

The Harvard Pilgrim Healthcare study of VAERS conducted for the Agency for Healthcare Research and Quality (AHRQ) under the US Department of Health and Human Services (HHS) concluded: "Likewise, fewer than 1% of vaccine adverse events are reported. Low reporting rates preclude or slow the identification of "problem" drugs and vaccines that endanger public health. New surveillance methods for drug and vaccine adverse effects are needed."

When looking at the VAERS data, you need to scale the result to get a better idea of what is really happening. Few people think that a scaling factor of 100x is appropriate – even given the conclusion of the Harvard Pilgrim Healthcare study. At the same time, most people consider a conservative scaling factor of 10x as the minimum likely good result. Thus, scaling factors between 10x and 100x should provide a reasonable bracketing for likely results.

A recent analysis that compared known anaphylactic events following vaccination with the number reported to VAERS, which showed only 2.4% of anaphylactic events were reported – resulting in a scaling factor of 41x. A different analysis using comparisons of different data sources suggested a scaling factor of 31x. In any case, you need to apply a significant scaling factor to account for under reporting.

Another issue you have to account for is the lag time from the time the data is entered by a doctor, nurse, patient or relative to the time the data appears in the published database. Remember, this can be a delay of 4-to-6 weeks. Due to the large number of adverse events being reported, the delay can artificially plateau the curve – because the most recent data is incomplete. If you compare the cumulative count of event X on day Y with the cumulative count of event X for the same day Y using a database that is 6 weeks older, you will see a dramatic increase in the cumulative count for event X up to that date. This incomplete data can cause you to assume there are fewer total events than there will be once all of the data is published. Thus, all the numbers I will present are lower than the data will eventually show – often significantly lower.

Your pseudo-vaccine provider or doctor is required by federal law to file a VAERS report if you report you have had an adverse event following your vaccination. However, many providers and doctors are violating federal law and refusing to make the report – there are no legal consequences for them refusing to file reports. If your pseudo-vaccine provider or doctor refuses to file a VAERS report for you, you should go to the VAERS.hhs.gov website and make the report yourself.

On February 20, 2021, CDC Wonder reported 650 deaths in the US from COVID-19 pseudo-vaccines out of 15,785 total COVID-19 adverse vaccination event reports –

4.1% of event reports. If you go back 4 weeks to January 24, 2021, you will see there had been 25.4 million pseudo-vaccine doses given. If you go back 6 weeks to January 10, 2021, you will see there had been 11.1 million pseudo-vaccine doses given. So, this gives a minimum death rate per pseudo-vaccine dose of between 0.0025% and 0.0059%. Two doses are required for the mRNA pseudo-vaccines so you must double this to 0.005% and 0.0118%, respectively. And then you should scale the numbers to account for under reporting. Using a very conservative 10x scaling for under reporting, you get 0.05% and 0.12%, respectively. If we use the study's estimate, we need a 100x scaling, yielding 0.5% and 1.2% respectively. This creates a realistic bracketing for a pseudo-vaccine related death rate of 0.05% to 1.2%. And death is only one of the serious adverse events possible.

As a point of comparison, on February 20, 2021 the published US per capita death rate for COVID-19 was 0.15%.

On July 30, 2021 the numbers were 5,739 deaths out of 443,201 event reports – 1.29% of event reports; 6 weeks prior gives 325 million pseudo-vaccine doses: 0.0018%/dose, 0.0035% for 2 doses, 0.035% to 0.35% scaled; 4 weeks prior gives 333 million pseudo-vaccine doses: 0.0017%/dose, 0.0034% for 2 doses, 0.034% to 0.34% scaled. This creates a realistic bracketing for a pseudo-vaccine related death rate of 0.034% to 0.35%. On the same day, the published COVID-19 per capita death rate was 0.187%.

The July 30, 2021 numbers include 13.7 million doses of the Janssen-J&J single-dose pseudo-vaccine without accounting for reporting delays – roughly 4% of all pseudo-vaccine doses given in the US to date – with 546 deaths – a similar death rate for becoming fully vaccinated. Thus, the inclusion of the Janssen-J&J data will not materially affect the overall results. The Janssen-J&J data would look worse if you accounted for the reporting delays – but that information is difficult to extract from the CDC';s data presentation.

On September 10, 2021, the total reported deaths were up to 14,925, of which 6,756 were from the US and territories. If you use the scaling factor calculated from the anaphylactic underreporting to VAERS – 41x – you get 277 thousand dead from the COVID-19 pseudo-vaccines in the US and territories. If you use the other calculated scaling factor of 31x, you get 209 thousand dead. In any case, there are a lot of dead folks. And that's a long way from the CDC's claim of no deaths.

The CDC and FDA claim that none of the VAERS-reported deaths can be directly attributed to the pseudo-vaccines – you cannot determine causality from VAERS. At the same time, the government also refuses to perform any autopsies on the dead and also refuses to offer an alternative explanation as to why these people died following their "jabs."

In September 2021, data from the Centers for Medicare and Medicaid Services (CMS) database showed that 48,465 people had died within 14 days of receiving

their [last] COVID-19 pseudo-vaccine dose. Although you can argue that some percentage of those people may have died anyway, it is difficult to argue that the number is anywhere near half. If you extrapolate the CMS findings to people not covered by the CMS database – roughly 80% of the US population, you end up with a very large number of people dead from the COVID-19 pseudo-vaccines in the US.

Pfizer released their 6-month study review on July 28, 2021 in preprint form – i.e., not peer reviewed. The abstract conclusion says: "With up to 6 months of follow-up and despite a gradually declining trend in vaccine efficacy, BNT162b2 had a favorable safety profile and was highly efficacious in preventing COVID-19." However, the data clearly shows that their pseudo-vaccine fails to be "safe and effective" in terms of all cause morbidity and mortality. The paper was still not peer reviewed as of October 10, 2020 – but it was their paper with their data.

There are systems similar to VAERS used over in Europe. There is the British Yellow Card system and the European Union EudraVigilance system. Both are showing similar results to the US VAERS system – rapidly mounting death tolls from COVID-19 pseudo-vaccines – 1,332 deaths and 15,472 deaths respectively as of June 19, 2021.

I asked my local pharmacy for a copy of the pseudo-vaccine package insert on July 23, 2021. I had to go to several different pharmacies before I found a pharmacy that would provide me with one. That pharmacy had the Moderna-NIAID pseudo-vaccine. The pharmacist brought out an unopened box of the Moderna-NIAID pseudo-vaccine to demonstrate the box was still sealed, opened the box in front of me and handed me the sealed package insert. On the front and back of the sealed folded package insert was printed "INTENTIONALLY BLANK", under which was a tiny 2D code I cannot read and the number 702174. I opened the package insert to find a completely blank 39-inch by 18.5-inch sheet of paper with the afore mentioned items on one side and "INTENTIONALLY BLANK" and the number 702174 in the middle of the other side. The pharmacist explained he wanted me to understand that the essentially blank package insert was not a joke.

What do the pseudo-vaccine fact sheets say about the risks of getting these pseudo-vaccines? On June 15, 2021, the latest version of the pseudo-vaccine fact sheets from the pharmaceutical company web sites (May 10, 2020 for Pfizer-BioNTECH, March 26, 2021 for Moderna-NIAID and April 23, 2021 for Janssen-J&J) fail to mention death as a hazard – along with most other serious complications not directly associated with a severe allergic reaction to the ingredients. I would have to say the pseudo-vaccine fact sheets are less than factual and give a false impression of actual risks. It is impossible to have informed consent without being truthfully informed.

On June 16, 2021, the CDC website (Safety of COVID-19 Vaccines) said: "To date, the systems in place to monitor the safety of these vaccines have found only two serious types of health problems after vaccination, both of which are rare. These are

anaphylaxis [allergic reaction] and thrombosis with thrombocytopenia syndrome (TTS) [low blood platelet count] after vaccination with J&J/Janssen COVID-19 Vaccine." So, I will take that as an indication that the CDC no longer considers death to be a serious health problem.

The number of serious adverse events not resulting in death that are being reported are roughly 4 times the number of deaths being reported to VAERS. Serious things like strokes, blindness, deafness, being paralyzed, being in constant pain, heart attacks, miscarriages. It is estimated that half those people will make a recovery from their serious adverse event – leaving the other half permanently disabled – without any compensation.

Historically, experimental vaccination programs were halted when fewer than 50 deaths were reported. For example, the 1976 H1N1 Swine flu vaccine was withdrawn after 25 reported deaths along with 550 reported cases of Guillain-Barre – after vaccinating roughly 20% of the US population – eventually 53 deaths were attributed to the vaccine.

So why has the experimental COVID-19 vaccination program continued after thousands of reported deaths? Doe anybody really believe that all of the deaths reported to VAERS are unrelated to the pseudo-vaccines and purely coincidental? Or, is it that everybody is intentionally ignoring the obvious safety signals? The proportional reporting ratio (PRR) used by the CDC for VAERS analysis starting in January 2021 has been documented to mask safety signals – even huge obvious safety signals. Plausible deniability?

Dr. Robert Malone, who is considered to be the father of the mRNA technology, has spoken out against providing mRNA COVID-19 pseudo-vaccines to young adults and children – generally, people under 30 years old. The risk is just too high for the expected benefit.

You can now see that receiving these pseudo-vaccines will expose you to significant risk. Depending on how you interpret the numbers, the death rate from the COVID-19 pseudo-vaccine may be of similar magnitude to the death rate from COVID-19 itself. The question is: Are the benefits from these pseudo-vaccines worth the risk? You will have to weigh the data and make up your own mind.

This begs the question: Who should and who should not get the pseudo-vaccine? Anyone who has already had COVID-19 does not need vaccination because they are already immune. Children and young adults under the age of 25 have a very low death rate – by February 10, 2021 only 763 people in this age bracket were reported to have died from COVID-19 – out of 476 thousand reported US COVID-19 deaths – only 137 deaths under the age of 15, which is fewer deaths than from influenza each year. So, there is little justification to vaccinate this age group. You should also not vaccinate pregnant women, nursing women or women likely to become pregnant as none of the pseudo-vaccines have been tested on these groups. Then you have

people with pseudo-vaccine ingredient allergy problems – but how would someone even know if they had such an allergy until after they received the shot and had the reaction? Taken together, this is a large segment of the US population.

Who is left to vaccinate? The primary population that the pseudo-vaccines can be justified for are those over 50 years old with underlying medical conditions (i.e., comorbidities) who do not meet one of the prior mentioned counter indications (i.e., reasons for not getting the vaccination). Everyone else should carefully consider whether or not one of the pseudo-vaccines makes sense.

By April 2021, the CDC was overrun by COVID-19 vaccine breakthrough cases – cases of COVID-19 in fully vaccinated people – with over 10 thousand reported cases. To be fair, vaccine breakthrough is common for most vaccines – some vaccines, such as the annual flu vaccine, have very high breakthrough rates – i.e., low efficacy – low effectiveness. As I noted above, the absolute efficacy rate was less than 1% for the COVID-19 pseudo-vaccines so a high breakthrough rate was to be expected.

As of May 1, 2021, the CDC changed their investigation guidelines of COVID-19 pseudo-vaccine breakthroughs cases, which included: "Clinical specimens for sequencing should have an RT-PCR Ct value ≤28." I talk about PCR testing and Ct values in a later section – I will simply note here that this change dramatically lowers the false positive rate – it lowers the likelihood of a false positive to about 50%. As part of this change, the CDC will no longer track and report COVID-19 breakthrough cases that do not result in hospitalization or death. Finally, the CDC continued to recommend using a Ct value of <40 for non-vaccinated people – a value known to generate high false positive rates. In other words, the CDC has intentionally created a two-tiered system – a clear double standard.

The quoted passage does mention "for sequencing," which is technically different from saying all tests. However, I think the net effect will be that most testing for breakthrough cases will now be done at the lower Ct value. You are free to disagree.

Let me summarize what this means so you can see the bigger picture. First, you continue to generate a high number of COVID-19 cases among the non-vaccinated population to create the largest possible comparison group. Second, you hide most of the pseudo-vaccine breakthrough cases in the vaccinated population so it looks like the pseudo-vaccines are effective at preventing COVID-19. Third, you downplay all of the adverse events reported in VAERS – claiming those adverse events and deaths are either unrelated to the pseudo-vaccine or not important so the pseudo-vaccines look safe. What's going on here? This is intentional data manipulation to give the impression that pseudo-vaccines are far safer and more effective than they actually are.

As of June 1, 2021, there were 3,016 reported breakthrough cases resulting in hospitalization or death.

By mid-September 2021, the hospitalization rates for vaccinated people were similar to the hospitalization rates for non-vaccinated people. This was to be expected based on the poor ARR efficacy figures in the EUA briefing documents. Also, world-wide data was showing that the efficacy drops off rather rapidly over a 6-to-8-month period – hence the need to push booster shots.

The way these three pseudo-vaccines work is by infecting your cells and causing them to manufacture spike proteins. Once this process starts, each infected cell becomes a spike protein factory. The resulting spike proteins end up being displayed on the cell exterior where the immune system can see and recognize them as foreign. Further, the remains of the spike protein manufacturing process – think of it as the kitchen trash – is also presented on the cell membrane for the immune system to see and recognize as foreign. Thus, the immune system will assume the cell is either foreign or infected and destroy the cell.

Once the pseudo-vaccine has been introduced into the cell and the infected cell starts manufacturing spike proteins, under what conditions will a cell stop making spike proteins? Overviews on the CDC website imply that each mRNA particle will only make one spike molecule before being degraded – but that clearly is not what must happen to be effective.

For viral replication to be successful, the genetic information must be preserved and used repeatedly. The spike protein is a trimeric structure consisting of 3 separate identical molecules that self-assemble into what is often referred to as the spike protein. Thus, a pseudo-vaccine particle must be able to manufacture at least 3 of these molecules to make one spike protein feature – and drug descriptions clearly require many spike proteins to be made by a single cell. The documentation for these drugs indicates that each strip of mRNA will survive roughly one week in the cell before being degraded and can produce over 2000 spike proteins within that period.

Each dose of the mRNA pseudo-vaccine introduces roughly 10 billion pseudo-vaccine particles into your body. That's a lot of infectious particles. Even if we assume a significant percentage of those particles are defective and some percentage of cells are infected multiple times and will not generate the full complement of spike proteins, we are left with a massive number of spike proteins being manufactured over the next few weeks.

The first problem with this scenario is that the pseudo-vaccine particles can indiscriminately infect any cell they come in contact with. That includes all of the cells around the injection site – mostly muscular as the injection is intramuscular – which is what you want. However, a large percentage of the pseudo-vaccine particles will leave the injection site to circulate around the body. Some of the pseudo-vaccine will make its way directly into the vascular system while a significant amount of the pseudo-vaccine will end up in the lymphatic system. While in the lymphatic system, the pseudo-vaccine particles can infect immune cells and

lymph nodes. The lymph system empties into the vascular system. The vascular system will then distribute the pseudo-vaccine particles throughout the body. Thus, you can have damage to immune cells, the lymphatic system and the vascular system as well as cells adjacent to these systems – which includes just about every cell in your body.

The portion of the vascular system that passes through the brain provides a blood brain barrier that protects the brain from blood born toxins and infections. However, when the pseudo-vaccine infects these cells and destroys the vascular lining, it also destroys the blood brain barrier at the same time – allowing blood components to pass into the brain that should have been excluded. This is never a good thing.

A second problem with this scenario is that the spike proteins presented on the vascular cell walls can activate platelets – a part of the blood that produces clotting. Thus, you can form micro blood clots throughout the vascular system. If these blood clots form in the capillary beds and restrict blood flow, you can cause cell death around the clots due to lack of nutrients and oxygen and the accumulation of toxins. Depending on the location and type of damage done, the damage may be permanent.

Restricting blood flow within the brain and damaging the adjacent brain tissue will result in a wide range of symptoms depending on the location(s) of the damage – e.g., headache, nausea, blindness, loss of muscular control, stroke – the list goes on. Note that many of the top adverse events are easily caused by clotting issues within the brain.

If the blood clots form in the capillary beds of the lungs, you can cause significant damage to the lungs – causing another set of symptoms. If the blood clots form in the capillary beds of the heart muscle, you can damage the heart itself.

Remember that the infected cells can damage vascular lining, which can cause the vascular system to bleed out into the neighboring tissue. The same spike proteins on the infected vascular lining that cause the blood clots can also cause the body to consume the body's supply of platelets, which results in thrombocytopenia – a low platelet count – and thus there may not be enough platelets to stop the internal bleeding.

You can use a D-dimer blood test to see if there has been recent clotting.

A third problem with this scenario is that the spike protein by itself is known to be pathogenic (i.e., disease causing) and it is assumed the spike proteins will stay attached to the cell and not detach and move about the body causing problems. The evidence strongly suggests that the spike proteins can and do detach from pseudo-vaccine-infected cells on a regular basis.

By mid-April 2021 it had been shown that the vaccine-generated free spike protein can cross the blood brain barrier. It is hypothesized that this can result in adverse reactions in the brain and spinal column and cause neurological issues. This may explain many of the reported adverse events ranging from sudden death to blindness to hearing loss to headaches to numbness to loss of motor control and more. More study of this issue is needed.

Consider what happens when bacteria are exposed to antibiotics. Selective evolution theory teaches that any bacteria not killed by the antibiotic will survive to create antibiotic resistant strains over many generations. This unintended selective breading of bacterium is well documented in the literature and is why we now have multidrug-resistant diseases. Now apply the same concept to vaccines and viruses. Research shows that vaccine-resistant viruses are developed by vaccines that fail to prevent a virus-related disease. Thus, vaccines are the viral analog to antibiotics and tend to create vaccine-resistant viruses under the right circumstances.

As of mid-April 2021, it now appears that it is possible for a vaccinated person to cause adverse reactions in non-vaccinated people based on many reported cases. How or why this may be happening is unknown. It is not known if this apparent reaction is caused by the transmission of the pseudo-vaccine itself, spike proteins or perhaps pheromones released in response to the pseudo-vaccine. More study of this issue is needed. There is mention of this possibility in the vaccine pretrial documents.

There is a potential issue of molecular mimicry between the SARS-CoV-2 virus spike glycoproteins and the proteomes in humans. It is hypothesized that this may be able to interfere with placental implantation in women due to an autoimmune response in some woman, thus leading to difficulty in reproduction. This is something that needs to be researched before woman of childbearing years receive a COVID-19 pseudo-vaccine. Note that no COVID-19 pseudo-vaccine safety tests have been performed on woman likely to become pregnant, pregnant women or breastfeeding women so these groups should not be given these pseudo-vaccines.

Research shows that there is a phenomenon called viral interference that can take place with other vaccines – such as the annual flu vaccine – depending on how the vaccine was manufactured. If the vaccine was grown in animal tissues that contained other coronaviruses – ones that don't infect humans, those other coronaviruses can contaminate the vaccine and lead to adverse reactions when the person becomes exposed to the wild SARS-CoV-2 virus.

As I have already noted, these pseudo-vaccines are arguably not designed to address true immunity but only try to reduce the severity of symptomatic COVID-19. As a result, they may have little effect on the length of time needed for the pandemic to run its course because they may not make a material contribution to herd immunity.

The pseudo-vaccine rollout has come with extensive messaging trying to get everyone to get their vaccination. "A vaccine in every arm." By June 9, 2021, 42% of the US population had been fully vaccinated – 53% of the population 18 and over. And the vaccination rate was falling quickly. Free lottery tickets and other incentives were used to try and entice people to get their shots but had limited success. By early October 2021, the Delta variant scare was being used to try to boost acceptance. A significant percentage of people receiving their first dose have chosen not to get their second dose due to serious adverse reactions – very roughly 30 million people or 10% of the population.

In March 2021, the White House announced 3 billion dollars in funding for the ongoing pseudo-vaccine promotion – that is in addition to the 7 billion dollars to expand access to pseudo-vaccines. There will be lots of different advertising campaigns running all at once to "strengthen vaccine confidence" – each one targeting a different audience. For instance, the Trusted Voices campaigns will use trusted community members to share positive pandemic response messages through social media.

If the disease is so terrible and the pseudo-vaccines are so "safe and effective", why is it so difficult to get people to take them?

Vaccine Mandates and Vaccine Passports

There is a move around the world to implement vaccine mandates – even as the pseudo-vaccines remain experimental. A major problem with vaccine mandates is that the mandates refused to recognize natural immunity from an earlier COVID-19 infection. By mid-September 2021, the overwhelming superiority of natural immunity compared to the pseudo-vaccines was well documented. Thus, if you have already had COVID-19, there is no benefit from vaccination.

By August 2021, many large US companies along with the US Federal government had announced their intent to fire anyone who refused to get a pseudo-vaccine. A few US companies had already fired unvaccinated people.

Some companies are making life so unpleasant for unvaccinated people that they are hoping the people will eventually give up and get vaccinated. As a condition of employment, you are given a choice. Either get vaccinated and be allowed to work without any testing or wearing a mask or you must be tested regularly – from every day to every week – and you must always wear a mask – and perhaps you will have to suffer through other workplace restrictions. Of course, this ignores the fact that vaccinated people also catch and transmit COVID-19 on a regular basis – but for some reason, vaccinated people don't need testing or masking. I guess there is no need for the consistent application of medical science when it does not serve your purpose of blind obedience.

During the summer 2021 COVID-19 peak, when the primary news stories were about hospitals being at full capacity, no one bothered to say that those same hospitals had lots of empty ICU beds because they actually had a huge nursing shortage – they had either fired the nurses for not being vaccinated or the nurses had left for better jobs – a situation the hospitals themselves had created. One week the nurses are national heroes and the next they are being harassed and fired.

There is a move around the world to implement digital vaccination apps for your smart phone – otherwise called vaccine passports. The bad part is that any vaccine passport will immediately create second-class citizens of everyone who does not have proof of vaccination. One major problem with this is that there are a lot of people who should not get vaccinated or who do not need vaccinations – not to mention the people who do not want the pseudo-vaccines. No passport? No access to venues, no access to services, no job, no medical care, no travel. How totalitarian is that? If you are a business and serve unvaccinated customers, they will take away your license and destroy your business.

Vaccine passports are seen as an early step in the move toward a totalitarian society where a state surveillance and control system keeps track of everyone and will ultimately be used to control everyone – similar to the current Chinese social credit and public shaming system. Think 1984 on steroids.

The Nuremberg Code of 1947 (coming out of the World War II Nuremberg Trials over German medical atrocities) holds that voluntary informed consent is required before the use of any experimental medication, medical procedure or medical device. All EUA pseudo-vaccines, tests and masks are experimental – by definition. Coercing someone to take an experimental drug or use an experimental medical device or procedure is in direct violation of the Nuremberg Code.

To quote from the Nuremberg Code:

> The voluntary consent of the human subject is absolutely essential. This means that the person involved should have legal capacity to give consent; should be so situated as to be able to exercise free power of choice, without the intervention of any element of force, fraud, deceit, duress, overreaching, or other ulterior form of constraint or coercion, and should have sufficient knowledge and comprehension of the elements of the subject matter involved as to enable him to make an understanding and enlightened decision. This latter element requires that before the acceptance of an affirmative decision by the experimental subject there should be made known to him the nature, duration, and purpose of the experiment; the method and means by which it is to be conducted; all inconveniences and hazards reasonably to be expected; and the effects upon his health or person which may possibly come from his participation in the experiment.

The Nuremberg Code is joined by other documents such as the Declarations of Helsinki (1964 – 2013), International Covenant on Civil and Political Rights (1977), UNESCO's Universal Declaration on Bioethics (2005), International Ethical Guidelines for Health-Related Research Involving Humans (2016), the US laws governing clinical trials – Title 45 Code of Federal Regulations (CFR), part 46 – Protection of Human Research Subjects and the US laws governing emergency uses – US Code Title 21, Chapter 9, Subchapter V, Part E, Section 360bbb-3 – Authorization for medical products for use in emergencies.

To quote from Title 45 CFR 46.116:

> Except as provided elsewhere in this policy, no investigator may involve a human being as a subject in research covered by this policy unless the investigator has obtained the legally effective informed consent of the subject or the subject's legally authorized representative. An investigator shall seek such consent only under circumstances that provide the prospective subject or the representative sufficient opportunity to consider whether or not to participate and that minimize the possibility of coercion or undue influence. The information that is given to the subject or the representative shall be in language understandable to the subject or the representative. No informed consent, whether oral or written, may include any exculpatory language through which the subject or the representative is made to waive or appear to waive any of the subject's legal rights, or releases or appears to release the investigator, the sponsor, the institution or its agents from liability for negligence.

Most of the EUA vaccination program currently violates Title 45 CFR 46.116. Section (a) goes over the basic elements of informed consent, most of which are being violated. Section (b) goes over additional elements of informed consent, most of which are being violated. I suggest you read Title 45 CFR 46.116.

To quote from US Code Title 21, Chapter 9, Subchapter V, Part E, Section 360bbb-3(e)(1)(A)(ii):

> Appropriate conditions designed to ensure that individuals to whom the product is administered are informed— (III) of the option to accept or refuse administration of the product, of the consequences, if any, of refusing administration of the product, and of the alternatives to the product that are available and of their benefits and risks.

There is significant disagreement as to how enforceable any of these protections are pertaining to EUA pseudo-vaccines – especially given the PREP Act and the declared health emergency – and the generally unwillingness of any Attorney General to prosecute such a case. If the law requires criminal prosecution, you need a local, state or federal government to prosecute the case. Otherwise, you can file a civil lawsuit. Civil lawsuits are very expensive ($$$) unless you can find a good pro bono

lawyer or someone to sponsor you – and that does not include all of the time it will take to prepare for Court. If you cannot figure out how to take the perpetrators to court and win the case, no law will protect you. As of early August 2021, it appears that no one has been successful.

Simply changing the legal designation from "authorized" to "approved" does not change the fact that appropriate testing has not been done or that some people should not have, do not need or may not want a pseudo-vaccine. A corrupt or otherwise dishonest government will simply change the legal designation and start enforcing mandates – religious exemptions notwithstanding.

The vaccine passport is similar to a protection racket – protection rackets have been around for thousands of years. The hit man comes around and offers to protect you for a small fee. If you agree to pay the fee, you are left alone. If you don't pay the fee, you will pay a heavy price – a smashed shop, burned crops, broken fingers, whatever. In this case, the government offers you a pseudo-vaccine and in exchange you can continue your life – you can go shopping, go out to dinner, go to sporting events, go to work, you can travel. If you refuse the pseudo-vaccine, you are not allowed to participate in society – you become an outcast.

Parallels can be drawn between mask wearing and/or vaccine "papers" and the Jewish yellow star – part of the Nazi's four-step process for dehumanizing the Jews: prejudice, scapegoating, discrimination and persecution – a process that indoctrinated the German people into agreeing with – or at least going along with – the plan to commit genocide. However, one can argue that we have advanced way beyond those primitive and barbaric techniques.

It is easier than you think. Review the 1962 Milgram Experiment:

https://youtu.be/rdrKCilEhC0

Pseudo-vaccine Gets FDA License Approval

The FDA approved the biologics license application (BLA) for BionTech on August 23, 2021. This BLA allows BionTech to manufacture the Pfizer-BionTech COVID-19 pseudo-vaccine and sell it to the public under the Comirnaty brand name. The license (approval) is for the 2 dose pseudo-vaccine for people 16 years old and older. Due to a recent amendment to the PREP Act, BionTech may end up with full liability protection for Comirnaty – but this remains to be seen.

On the same day, the FDA reissued the EUA for the Pfizer-BionTech COVID-19 pseudo-vaccine. The updated EUA now includes the administration of Comirnaty under certain conditions (third booster dose, 12- to 15-year-olds) and notes that the two pseudo-vaccines are identical but legally different. As long as the Pfizer-BionTech COVID-19 pseudo-vaccine or Comirnaty pseudo-vaccine are administered under the EUA, they maintain full liability protection.

The media is saying that the Pfizer-BionTech COVID-19 pseudo-vaccine is now approved. However, the Pfizer-BionTech COVID-19 pseudo-vaccine is NOT approved but remains under EUA. Only Comirnaty is licensed (approved) but will not be available in the US for some unknown time period – if ever. The two are not legally the same – even if they are otherwise identical. This is a legal charade to make you think the shot you are now getting is licensed and approved – which it is not. If it does not say Comirnaty on the label, it is not licensed and approved.

This has two very important implications regarding mandates and liability. If you are fooled into thinking the vaccine is licensed and approved, you are more likely to accept a mandate – as you may now think that laws protecting you from experimental drugs no longer apply. If you are fooled into taking the Pfizer-BionTech COVID-19 pseudo-vaccine instead of the Comirnaty pseudo-vaccine, you lose any possible ability to sue BionTech for damages caused.

Remember that the data is based on the early SARS-CoV-2 pandemic strains and not the currently dominant Delta strain. Thus, the data sited in support of the BLA is out of date and likely to result in wrong conclusions. It also ignores the fact that the placebo arm of the study was destroyed shortly after the original EUA was issued and no longer exists. Thus, there is no placebo arm of the study and so citing data from the placebo arm is fraudulent science. Further, without a placebo arm, you can easily hide side effects or blame them on something else.

The FDA bypassed the normal advisory committee and public comment process, claiming that the review and public comment allowed in December 2020 for the EUA was sufficient. To quote: "We did not refer your application to the Vaccines and Related Biological Products Advisory Committee because our review of information submitted in your BLA, including the clinical study design and trial results, did not raise concerns or controversial issues that would have benefited from an advisory committee discussion." Things like deaths and severe adverse reactions – among other things – must not raise concerns or cause any controversy.

One last interesting quote: "The FDA and Centers for Disease Control and Prevention have monitoring systems in place to ensure that any safety concerns continue to be identified and evaluated in a timely manner." A total of 9024 deaths had been attributed to the Pfizer-BionTech COVID-19 pseudo-vaccine through the VAERS database by August 13, 2021 – yet no mention of those deaths is found in the BLA documents, updated EUA documents or press releases.

Also on August 23, 2021, following the FDA announcement, President Biden urged all business, non-profit and government leaders to require COVID-19 vaccinations – in other words – mandate vaccinations as a condition of employment.

On September 9, 2021, President Biden signed an executive order to require all businesses with 100 or more employees to mandate employee vaccinations.

Congress, congressional staff and the Post Office were exempted from the mandate requirement. As President Biden put it: "We're going to protect vaccinated workers from unvaccinated coworkers."

You can review the Comirnaty pseudo-vaccine BLA and approval documents on the FDA's website:

https://www.fda.gov/coronavirus-disease-2019-covid-19/comirnaty-and-pfizer-biontech-covid-19-vaccine (copy/paste entire URL, remove extra space after first line)

Pandemic Data

So where are we in the current pandemic? It's a moving target. A common place to start is with the John Hopkins data:

https://www.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6 (copy/paste entire URL, remove extra space after first line)

The CDC's weekly death data along with detailed information on the limitations of that data can be found here:

https://www.cdc.gov/nchs/nvss/vsrr/COVID19/index.htm

And if you want the Arizona data, you can go here:

https://azdhs.gov/preparedness/epidemiology-disease-control/infectious-disease-epidemiology/covid-19/dashboards/index.php (copy/paste entire URL, remove extra space after first line)

As of mid-May 2021, the worst per capita death rates in the general population by country have already passed 0.2%. Given the trends of the curves, there is good reason to guess the typical per capita death rate will exceed 0.2% in the US and most European countries over the coming months. Whether or not the values will approach or exceed a 0.3% per capita death rate in the general population is anyone's guess. A death rate of 0.2% is one person in 500. A death rate of 0.3% is 1 person in 333.

But before we go into too much detail about the dead folks, let's try to unravel the numbers around the sick and recovered folks.

Cases Versus Infections

There is an important distinction that needs to be made – the difference between a case and an infection. A case is when someone is officially diagnosed with the infectious disease – even if that diagnosis is wrong. An infection is when someone

actually gets the infectious disease – whether or not they are officially diagnosed with the disease. We will discuss the issues with counting cases later. The reality is we have no clue how many people have become infected by the SARS-CoV-2 virus so picking a number for infections is just a guess.

We need two important pieces of information to figure out a death rate. The first thing we need to know how many people died from the disease – the numerator. We can use one of the published figures for this number. Then we need to know how many people got the disease – the denominator. You can use the published number of cases for this number for the case fatality rate or you can guess at the number of infections for the infection fatality rate. The quotient – the result of the division – gives you the fatality rate.

Thus, we have a case fatality rate and an infection fatality rate. The case fatality rate will always be greater than the infection fatality rate because there is no way to detect all of the infections – we will discuss why shortly. You must always keep in mind the limitations of both of these fatality rates. They should always be viewed with suspicion.

Cases

If you want to know what is currently happening and the trends, use the daily or weekly rates. But as the CDC explains in detail, these numbers need to age. It takes time to gather the complete set of data. By the time the numbers are many weeks old, most of the data should be reported and the published numbers should be relatively close to where they are likely to end up. That means the data has become more stable and is less likely to change dramatically. That does not mean the data is accurate – as we are about to discuss – it just means the data is stabilizing around its likely final value.

It is important to understand what counts as a case. It all hinges on the definition of a case. A case can be "confirmed" through laboratory testing. Or a case can be only "suspected" based on symptoms. Or a case can be "inferred" due to its proximity to another case. These distinctions are very important to the accuracy of the resulting numbers so let's cover them one at a time.

You should keep in mind that you are not required to be sick to be a confirmed case or an inferred case. No clinical symptoms are required. Think about that. You can feel fine and you can have no clinical symptoms yet you can still be counted as a COVID-19 case.

A confirmed case is one that is confirmed through a laboratory test. We will take up the issue of testing accuracy in a moment, but to get things started, let's just assume there is an accurate test.

The primary use of a test is to ascertain if someone has a specific condition so that specific condition can be treated in an appropriate manner. If you are not going to change how you treat a condition based on the result of a test, there is little point in testing for it. Counting positive test results – solely for statistics – is rarely a good justification for testing people.

An example of this would be respiratory infections. A respiratory infection can be caused by rhinovirus (the most common of the common cold viruses), influenza virus, coronavirus, respiratory syncytial virus (RSV), human metapneumovirus (HMPV), bacterium and fungus, among other things. For the vast majority of cases – i.e., for viral respiratory infections – there is no point in testing because there are no special treatments for specific viruses. Nothing is gained by doing the test so no test is done.

If you suspect a bacterial infection and the illness is of a nature that suggests it should be treated, you are testing for a specific infectious bacterium that can be treated by a specific antibiotic or other drug – guided by careful medical observations. Thus, you are testing in order to select an appropriate treatment.

A suspected case is based on matching symptoms. The problem is, most viral respiratory infections present many similar symptoms – e.g., fever, cough, sneezing, sore throat, nausea, diarrhea, achiness, lethargy. Thus, suspected COVID-19 patients are said to have COVID-19-like symptoms or have a COVID-19-like illness. You must then ask what set of symptoms will be used to identify a suspected COVID-19 case and how will you will differentiate it from one of the other viral respiratory infections with similar symptoms. Testing has shown that only a small percentage of people with a COVID-19-like illness test positive for SARS-CoV-2 – the average was under 10% in Arizona while testing was restricted to only people with a COVID-19-like illness. Thus, using suspected cases can substantially inflate the number of COVID-19 cases.

An inferred case is based on the assumption that all members of a group must be infected if any one member of that group is infected. This assumption is wrong on average. It is common to see few other members of a group becoming infected if one member becomes infected. Thus, using inferred cases can substantially inflate the number of COVID-19 cases.

The next issue is that different reporting areas may be using very different criteria for counting cases and the criteria can and does change over time. For instance, how people are being selected for testing within a reporting area can have a large impact on the number of confirmed cases. Does the area include suspected cases and if so, based on what symptoms? Does the area include inferred cases? We quickly get to a situation where we are faced with comparing grapefruit to avocados to tomatoes – the resulting numbers may have very little practical utility or medical relevance, if any.

The next issue relates to testing and the accuracy and meaning of test results. False positives and false negatives are part of the testing process. Test results can be influenced by how the samples are taken, when in the infection cycle the sample is taken, the particular test used and how the test is processed.

The gold standard is to culture the virus in the lab – in a large enough quantity to positively identify it. This is the only way to prove you have an infectious live virus. This is rarely done because it is expensive and time consuming. Thus, we try to substitute cheaper and faster methods – that are also less reliable.

The common PCR (Polymerase Chain Reaction) test comes in several different varieties including the more common quantitative (q-PCR or real-time) test and the reverse transcriptase (RT-PCR) test. Try not to confuse the two as the RT initials are sometimes used in both cases.

Kary Mullis won the 1993 Nobel Prize in chemistry for inventing the PCR process. The process was patented as Patent #5,656,493. Kary emphasized that PCR was good for amplifying molecules but could never tell you if you were sick. The PCR methodology was never designed for use as a diagnostic tool – it was a research tool to amplify the presence of genetic material for research studies. The PCR test – as a diagnostic tool – has many serious flaws – including the inability to determine if someone is infectious. I want to emphasize that the issues with PCR tests were well known long before COVID-19.

PCR tests are testing for fragments of viral genetic material – they are not actually testing for the live SARS-CoV-2 virus itself. Thus, it is common for a PCR test to find detectable genetic material from dead viral debris long after the last SARS-CoV-2 virus has been eliminated from your body and generate a false positive. Another issue is that it is possible to have a non-target virus with similar genetic material generate a false positive. Or, if you are using a single strand test, the variant you are testing may no longer have that exact strand and generate a false negative. Finally, you may be tested too early in the incubation period and generate a false negative. There are many different COVID-19 PCR tests in use that can be looking for different things as stand-ins for the live virus.

The FDA (Food and Drug Administration) issued an EUA (Emergency Use Authorization) for the current COVID-19 PCR tests in April 2020 – they are not formally approved as would happen after rigorous testing. The manufacturers of the PCR tests and labs that process the PCR tests are protected from liability under the PREP Act so if a test returns a false result, you cannot sue them. This also means that there is less incentive to make sure the results are accurate. From the lab's perspective, returning a false positive is better than returning a false negative – so there is an incentive to use higher Ct values.

Suffice it to say that PCR testing has not been the reliable gold standard it was advertised to be. In fact, the CDC published a notice on July 21, 2021 that it would

withdraw the request for EUA on December 31, 2021 for its CDC 2019-Novel Coronavirus (2019-nCoV) Real-Time RT-PCR Diagnostic Panel because it could not differentiate between influenza and SARS-CoV-2. Note that this test had been in use since February 2020. The 5-month lead time was to allow labs to switch over to a more reliable panel – in time for the next flu season. So, the unreliable panel will have remained in use for almost two years even though it was known from the beginning it would generate false positives with influenza. Imagine all those people with an influenza infection being falsely diagnosed with COVID-19. Perhaps that is why the winter 2020/2021 flu season never happened – all that influenza magically turned into SARS-CoV-2.

The amount of genetic amplification used to process a test – referred to as the cycle threshold (Ct) value – influences the sensitivity as well as the accuracy of the test. Higher sensitivity results in lower accuracy – i.e., more false positives. Each Ct value increment represents a doubling in the amplification. Thus, the total amplification is 2 raised to the Ct value. A Ct value of 20 represents an amplification of 1 million. A Ct value of 30 represents an amplification of 1 billion. A Ct value of 40 represents an amplification of 1.1 trillion. Kary's patent suggests Ct values between 15 and 30 are appropriate for research applications.

Too much amplification has been an ongoing problem resulting in a lot of false positives. Labs commonly used Ct values in the 40 to 45 range. The CDC recommended Ct values of <40 throughout 2020 and 2021 for most testing. This is particularly problematic if you have recently recovered from a SARS-CoV-2 infection or have been in close contact with a recently recovered person.

Research has shown that the SARS-CoV-2 virus is very difficult to culture once the Ct value exceeds 35 – i.e., there is a positive result with a Ct value above 35. The research shows that a Ct value of 35 results in culturing the virus 3% of the time; a Ct value of 30 results in culturing the virus 20% of the time; a Ct value of 25 results in culturing the virus 70% of the time. The likelihood of culturing the virus is approaching 100% as the Ct value drops below 15.

So why would the CDC recommend a lab use amplifications that result in Ct values over 35 – or even over 30, which are likely to generate a false positive result? It boggles the mind. Yet, this was the standard practice for 2020 as states ramped up testing and the practice continued into 2021. By the time the Ct value gets to 40, the false positive rate is approaching 100%. Thus, a positive test result – in the absence of symptoms – does not correlate with you being infectious.

You may want to consider that manipulating the Ct value is a simple way to manipulate the case numbers and perhaps this was done intentionally. Remember, it is impossible for a PCR test to determine if you are infectious. So, one must ask: why would anyone use such a test in the first place? Critics of SARS-CoV-2 PCR testing coined the phrase casedemic to draw attention to the highly publicized fixation on inflated case numbers.

If you get a PCR test, you should at least try to make the lab provide the amplification used (i.e., the final Ct value) and a list of conditions that will generate false positives and false negatives so you can determine if your result is likely to be valid. But prepare to be disappointed. Test results are normally reported as a binary value – positive or negative – so you will not be able to assess the likelihood of a false positive. But the probability of a false positive is likely to be quite high. Then the testing company is not likely to provide a list of viruses and other conditions that will cause the test to be positive.

The WHO (World Health Organization) published a notice on January 13, 2021 that said: "WHO guidance *Diagnostic testing for SARS-CoV-2* states that careful interpretation of weak positive results is needed. The cycle threshold (Ct) needed to detect virus is inversely proportional to the patient's viral load. Where test results do not correspond with the clinical presentation, a new specimen should be taken and retested using the same or different NAT (nucleic acid testing) technology." In other words, if you get a positive result and there are no symptoms, you are probably looking at a false positive result.

It goes on to say: "WHO reminds IVD (In Vitro Diagnostic Medical Device) users that disease prevalence alters the predictive value of test results; as disease prevalence decreases, the risk of false positive increases. This means that the probability that a person who has a positive result (SARS-CoV-2 detected) is truly infected with SARS-CoV-2 decreases as prevalence decreases, irrespective of the claimed specificity." In other words, the percentage of false positives goes up as the number of actual infections goes down – period.

Antigen tests look for viral proteins and produce faster results but have higher error rates compared to PCR tests. As you are not testing for the actual virus, a non-target virus may generate the same protein and generate a false positive.

It is important to keep in mind that testing in the US in May 2020 was generally restricted to people who were sick and showing COVID-19-like symptoms. If you were sick and chose not to seek medical help and just stayed home, you were not tested. Even if you tried to see the doctor, you still might not be tested. Thus, it was guesstimated that there were 10 times more actual infections than "confirmed" cases in the US population.

In the May 2020 timeframe, you would typically see a positive result for only 6% to 8% of symptomatic people tested – i.e., people with COVID-19-like symptoms. The positive rate rose to 10% to 12% by June and July 2020 during the summer peak and then dropped again before heading back up in the fall and winter. Positivity rates rose to around 25% in some places during the winter 2020/2021 peak before falling again to much lower levels. It should be noted that there were large variations from one region to the next and one time period to the next. Also, consider the influence of labs using high Ct values that we already discussed.

The time between getting a test and receiving results has been an ongoing problem. The longer it takes to receive your test result, the less useful the result will be. By the time the result is delayed by a week, the result is nearly worthless because the decision about what to do was already made without any consideration for the eventual test result. Again, you should establish the utility of a test before getting tested.

A positive result turns you into a confirmed case. However, a positive result does not mean you are infectious and a negative result does not mean you are not infectious. Let's look at the possible scenarios.

If you are symptomatic – i.e., you are feeling sick and have symptoms – and you receive a positive result, it is probably good to assume the test result is correct and you should stay home and quarantine. But if you were symptomatic prior to taking the test, you should have stayed home anyway. Going out when you are sick and spreading a cold, the flu, strep or COVID-19 to family, friends and neighbors is just rude social behavior.

If you are asymptomatic – i.e., you feel fine and don't have symptoms – and your test comes back positive, you don't really know much. Did you get a false positive? Do you have a very mild case? Are you still in a long incubation period? There is no way to tell. 95% of people develop symptoms within 14 days of exposure. That means that 5% of people take longer than 14 days to develop symptoms. Sorry, since you took the test, you should stay home for the prescribed quarantine period.

If you are symptomatic – i.e., you are feeling sick and have symptoms – and have a negative result, you should stay home until you get better. You obviously have something – you just don't know what it is. You don't want to give whatever you have to your friends and associates in any case.

If you are asymptomatic – i.e., you feel fine and don't have symptoms – and your test comes back negative, you really don't know much. You might have a false negative result and be in the incubation period discussed above. Or you might have nothing. As long as you feel fine and remain free of symptoms, you can probably go on with your life without fear of infecting others. If you are asymptomatic, you are either not sick or your symptoms are sufficiently mild that you are not likely to be infectious. Remember, people with very mild symptoms for viral respiratory infections - be that a cold, the flu, a coronavirus or COVID-19 – tend to shed very few viral particles and are thus at low risk of infecting others. So, if you have no symptoms, you are probably good to go.

As you can see, the case numbers are suspect while testing is problematic. For all of the reasons I have discussed, there is a high likelihood that the published COVID-19 case numbers are significantly overstated – even as they are a gross undercount of actual infections. Be very careful what conclusions you draw from case numbers

and test results. The unscrupulous will use these results to terrorize the public and justify all kinds of mandates and controls or to otherwise push agendas that don't benefit the public. There are three kinds of lies: lies, damned lies, and statistics.

The COVID-19 case numbers have little practical utility. They don't stop you from getting sick and they don't help you get better. The numbers don't even tell you which one of the hundreds of respiratory viral infections you got and recovered from. And in the end, none of that actually matters to the average person.

Published Numbers

Now that we have an understanding of where the published numbers are coming from – and a better understanding of the limitations of those numbers – let's take a look at the numbers and try to figure out what is going on. Please keep in mind that there are a lot of assumptions being made – I have tried to make them obvious so you can understand the limitations of those numbers.

There were 1.6 million reported COVID-19 cases by May 24, 2020. It is not practical to ascertain how many of those were confirmed so we will just assume they are some combination of confirmed, suspected and inferred.

We addressed the issue of confirmed cases versus undetected infections due to under testing previously and settled on a published guesstimated scaling of 10x from May 2020 to account for under testing. Just remember that the scaling applies to confirmed cases, which is a number we don't really have access to. We only have access to undefined case numbers that may or may not include suspected and inferred cases and may have other problems we are not aware of – such as significant false positives. So, these numbers should always be viewed as suspect.

Therefore, let's just assume – for the sake of this discussion – that there were closer to 16 million infections on May 24, 2020 – 1.6 million cases times our 10x scaling. This is a very rough guesstimate at best.

In the end, what do all those numbers mean? Not much. They are a vague guesstimate of what is going on with the infection spread. The numbers may be intellectually interesting and fun to talk about but beyond that, the numbers are of marginal practical utility. However, the numbers can be used for political purposes so you should be very careful whenever they are used to justify something.

The problems with published data have continued as the pandemic has worn on. On February 16, 2021, Arizona was reporting 800 thousand cases (746 thousand confirmed, 54 thousand suspected) but only 593 thousand positive test results. That's a discrepancy of roughly 153 thousand test results. Remember, a case is only supposed to be confirmed if there is a corresponding positive test result. Nothing on the dashboard page tries to explain how 593 thousand positive test results generates 746 thousand confirmed cases. I have used the larger reported case

number for consistency because that is the number that gets used for calculating the national figures.

On July 15, 2020, the Arizona data showed that 1.8% of the 7.4 million Arizona population had tested positive for COVID-19. Of course, that assumes there were no false positive test results and no one took multiple tests and tested positive multiple times – just saying. If we assume the same 10x scaling to account for under testing noted above, we can guesstimate that 18% of the Arizona population has been infected. If we assume roughly 50% of the population has to get infected for the spread to stop on its own, we can guesstimate that Arizona is one-third the way through the pandemic.

The figures rose to 2.9% and 29% respectively by September 20, 2020. By November 15, 2020, the numbers had risen to 3.7% and 37% respectively. By December 26, 2020, the numbers had risen to 6.7% and 67% respectively. By March 14, 2021, the numbers had risen to 8.2% and 82% respectively.

Another interesting data set to look at is the Arizona hospital COVID-like and influenza-like illness surveillance graphs. Each has twin graphs – one for emergency department visits and one for inpatient – I will use whichever is higher. This data spans December 2019 to February 2021.

For the influenza-like illness graphs, you see a prominent 2019/2020 winter peak around 9%, a smaller 2020 summer peak around 4% and a very low 2020/2021 winter peak around 3%. The valleys between peaks are around 2%.

Looking at the COVID-like illness graphs, we see a low level for the 2019/2020 winter of around 4%, you see the 2020 spring peak around 7%, the 2020 summer peak around 20% and the 2020/2021 winter peak around 29%. The valleys between peaks are around 4%.

You will notice the roughly 4% COVID-like illness rate existed two months before the first confirmed COVID-19 cases in Arizona. You will also notice the almost complete lack of a winter 2020/2021 flu season. Do you think there might be an issue with how symptoms are being classified?

Deaths

So, let's move on to deaths. It is important to keep in mind that not all "COVID-19 deaths" are "confirmed" deaths. All of the issues we ran into when trying to understand what constitutes a case will also apply to what constitutes a COVID-19 death – with some additional issues thrown in.

There is a big difference between dying *from* COVID-19 and dying *with* COVID-19 – even though that distinction is not reflected in the numbers.

If you get COVID-19 and you die because of COVID-19 – for example, you get pneumonia or acute respiratory distress syndrome (ARDS) as a direct result of COVID-19 and die, you died *from* COVID-19.

If you have a historic health problem, such as heart disease or cancer and you die from that historic health problem but happen to test positive for COVID-19, you died *with* COVID-19.

Then you have the in between cases. If you have a historic medical problem and COVID-19 makes it much worse, are you dying *with* or *from* COVID-19? Your historic medical problem and COVID-19 may both share blame. As long as the COVID-19 makes a substantial contribution, you may have died *from* COVID-19.

This goes to the core of the issue of underlying medical conditions – also called comorbidities. Having an underlying medical condition, be it cardiovascular, cancer, respiratory, diabetes or what have you, can dramatically lower your survival rate if you also get COVID-19.

The root cause of many of these preexisting conditions typically comes down to life style choices or socioeconomic status, which includes cultural influences and other modifiable environmental factors – only a tiny percentage will be genetic. And these same lifestyle issues will also influence your immune system. So, the same lifestyle issues that caused your underlying medical condition are probably also responsible for reducing your immune response and making you more susceptible to COVID-19.

Finally, if you have a historic health problem and due to the pandemic, you cannot get treatment for that problem and die as a result, should that count as a COVID-19 death? Many doctors and hospitals restricted medical care offerings during the pandemic. And many people were either not able to get to treatment or were too afraid to go for treatment. As a result, a lot of otherwise treatable medical conditions went untreated and a lot of additional people died. These deaths should not be counted as COVID-19 deaths – they are simply excess deaths.

All of this can lead to a legitimate disagreement as to how to classify any given death.

The death certificate has as two fields to help record a historically and statistically accurate understanding of each death. The cause of death is broken into two parts. The first part records the chain of events that led to the death – diseases, injuries or complications – things that **directly** caused the death. The second part records other significant conditions **contributing** to death but not actually being the cause of death. Death certificates become the permanent historic record so any misclassification listed on a death certificate will turn into historic fact.

The current version of the US Standard Certificate of Death dates from 2003 and has been the US standard for the 17 years prior to the COVID-19 pandemic. Throughout this period, the guidance was to not report infectious diseases in Part 1 of the death

certificate. However, on April 24, 2020, the National Vital Statistics Systems (NVSS) guidelines were changed by the CDC to say COVID-19 was now to be reported in Part 1 of the death certificate – and not in Part 2 as the prior instructions specified. One can argue that a causal infectious disease should be in the chain of events for Part 1 – for example, you get a viral respiratory infection that in turn leads to pneumonia that in turn leads to respiratory failure and death. However, saying that only COVID-19 should be listed in Part 1 and leaving all other infections for Part II is totally inconsistent. Either all causal infectious diseases should be listed in Part 1 or none of them should be. In my humble opinion, all causal infectious diseases should be listed in Part 1.

There is a further problem. Estimates indicate that due to the pre-COVID-19 death certificate policy, the actual annual death count from infectious diseases – from multidrug resistant diseases or common respiratory viruses – could be in the range of 500 thousand – making death from these diseases the third leading cause of death in the US if they were properly accounted for. These deaths were being attributed to heart disease, cancer or other preexisting conditions. Now let's say you shift a large part of these "hidden" deaths into the COVID-19 column. This would go a long way to explaining where so many COVID-19 deaths are now coming from.

There is also a conflict of interest in classifying hospital patients with a respiratory illness as a COVID-19 case. As part of the Coronavirus Aid, Relief and Economic Security (CARES) Act, hospitals were paid extra for COVID-19 cases. The first round of funding started off based on historic Medicare revenue and thus the payments varied dramatically from one state to the next. Nebraska was the highest at $379,000 per case while New York was the lowest at only $12,000 per case. By May 2020, the payment changed to $76,975 per COVID-19 case. For the July 2020 second round funding the amount was changed to $50,000 per COVID-19 case with added restrictions. For the third round of funding in December 2020, the application and compensation process got really complicated – too complicated to explain here. It should be noted that hospitals were not the only healthcare entities to qualify for similar funding.

Consider the practice of testing dead people who died from accidents for COVID-19. Remember the high PCR false positive rates we already discussed? This is how you end up with a motorcycle accident victim dying of COVID-19.

As you can see, there is a significant financial incentive to fudge the diagnosis by including a COVID-19 diagnosis whenever possible. We have already seen that very few people with COVID-like illness are actually COVID-19 positive after a lab test. And we have also seen that lab tests can have a high false positive rate. Thus, we must conclude that the death numbers for COVID-19 are significantly overstated. Yes, there are a lot of dead folks. Unfortunately, we don't know what they actually died from. How inflated the COVID-19 numbers are will remain for history to estimate after the pandemic is finished.

Most hospitals and other care facilities prevented family and friends from visiting patients during the pandemic. Even non-COVID-19 patients suffered isolation from family and friends. It is well known that social connections and visitations are important to the psychological wellbeing of all patients. Keeping patients isolated can be seen as a form of psychological torture and likely had a negative effect on many outcomes. Forcing patients to die along is cruel and barbaric.

Death Risks

The US COVID-19 hospital treatment protocol in the NIH (National Institute of Health) guidelines specify the use of remdesivir. See the guidelines:

https://www.covid19treatmentguidelines.nih.gov/management/clinical-management/hospitalized-adults--therapeutic-management/

This recommendation (effectively a mandate) to use remdesivir is in spite of the well documented toxicity and kidney damage that often results in death. In simple terms, it happens like this – give the patient remdesivir and a saline IV, when the kidneys fail after several days, the patient effectively drowns from the accumulation of fluids from the IV. This is not the only way to die from remdesivir – just a common one. This is not medical treatment – this is premeditated murder.

Further Medicare (Centers for Medicare and Medicaid Services – CMS) bribes hospitals to use remdesivir under the new COVID-19 Treatments Add-On Payment (NCTAP):

https://www.cms.gov/medicare/covid-19/new-covid-19-treatments-add-payment-nctap

I quote: "NCTAP claims are those that are eligible for the 20% add-on payment under Section 3710 of the CARES Act. Eligible claims have both of the following: ICD-10-CM diagnosis code U07.1 (COVID-19), ICD-10-PCS codes for remdesivir (Veklury), COVID-19 convalescent plasma, or baricitinib (Olumiant) in combination with remdesivir, as described below".

Even the WHO recommends against using remdesivir. Is it any wonder the US has one of the higher per capita COVID-19 death rates in the world and the highest absolute COVID-19 death rate in the world?

Ivermectin is also on the approved drug list – see Table 2e from the guidelines:

https://www.covid19treatmentguidelines.nih.gov/tables/table-2e/

Ivermectin is over 20 times safer for late stage COVID-19 treatment but is almost never in any hospital treatments because it is not the officially recommended drug

and the government continues to actively discouraged any use of ivermectin. I will be discussing effective treatment protocols later.

This sad state of affairs has been going on for over a year and a half – it is now October 2021. NIH refuses to change their treatment guidelines (mandate) and hospitals refuse to stop killing people using remdesivir. How many of the 700 thousand COVID-19 deaths would have been prevented by simply NOT using remdesivir?

As of January 28, 2021, about 35 to 40% of US deaths due to COVID-19 were from people living in long-term care facilities. In some states, that would go as high as 80%. Long-term care facilities account for only 1% of the US population but these facilities house a high concentration of the nation's most vulnerable people and the people in these facilities tend to be much older. Administrative procedures in these facilities also made a significant contribution to disease spread.

It is instructive to look at the COVID-19 deaths by age group. Below is the data from February 10, 2021, when there were 476 thousand reported US COVID-19 deaths:

- Under 5 years of age: 68
- 5 to 14 years: 69
- 15 to 24 years: 626
- 25 to 34 years: 2,804
- 35 to 44 years: 7,395
- 45 to 54 years: 20,403
- 55 to 64 years: 51,786
- 65 to 74 years: 94,964
- 75 to 84 years: 123,412
- 85 and older: 141,580

Put another way, on September 10, 2020, the CDC's estimated that the age-stratified infection fatality rates for COVID-19 were estimated to be:

- 0 to 19 years: 0.003%
- 20 to 49 years: 0.02%
- 50 to 69 years: 0.5%
- 70+ years: 5.4%

Age is a significant risk factor. Given a US life expectancy of 79 years, you will notice that roughly half the deaths were past the average US life expectancy. It is clear that older populations will generally have a higher death rate compared to younger populations. However, the state of someone's health is probably the most significant risk factor – even if it is more difficult to ascertain. Poorer health only generally correlates with increasing age. But even in the highest risk age group, the survival rate is estimated to be 95%.

The data showed that children were at very low risk from COVID-19 by summer 2020 and the CDC confirmed this by late summer 2020. Children generally have mild symptoms and rarely have complications requiring medical care unless they have an underlying medical condition – children have a very low rate of underlying medical conditions. Further, children pose a lower risk of passing on a COVID-19 infection as their viral loads tend to be much lower than that of an adult. Yet, most US public schools remained closed. Private schools, on the other hand, were open for learning and socializing.

For perspective, it was estimated that 607 thousand people died from cancer in 2019 in the US – a per capita death rate of 0.184%. Cancer is the second leading cause of death in the US. This happens year after year – yet no one gets very upset.

For a bit more perspective, the 2016 John Hopkins study estimated that 250 thousand people die each year from medical mistakes – the third leading cause of death in the US. However, due to the way medical errors are reported, some estimates have this number as high as 440 thousand deaths per year. Year after year. Why aren't people up in arms about those preventable deaths?

Data indicates that COVID-19 has an exponentially increasing risk of hospitalization and death with age. From around age 20, the risk doubles every 16 years – about 4.5% per year. Not huge but significant. And men have a risk that is roughly 50% higher compared to woman. This exponential increase in risk with age and higher male risk is common with many other common diseases. Thus, it may be more related to an aging (and potentially neglected) immune system and other underlying medical conditions.

Data suggests a strong correlation between being overweight and the risk of death from COVID-19. Roughly 78% of hospitalized COVID-19 patients are either overweight or obese. A similar percentage of COVID-19 deaths are overweight or obese. Correlation is not causation so it is likely that being overweight is just a symptom of a more fundamental problem that makes you more susceptible to COVID-19. Perhaps a poor lifestyle – poor nutrition, insufficient sleep, insufficient exercise, stress, social isolation?

Preventing Deaths and Hospitalizations with Early Treatment

If you look at the per capita death data for many third world countries, you will see an interesting phenomenon. The COVID-19 per capita death rates for many – if not most of these countries – are much lower than for the "developed" northern European countries and the US. Why is that? Do all of these counties suffer from bad medical data or is something else going on? For instance, look at India – a very crowded, mostly poor and rather unsanitary country. Their per capita death rate has been under 15% of the US per capita death rate. How can that be?

Proactive early treatment is the key to preventing death for most fatal diseases. If you wait until symptoms become very bad before beginning treatment, you dramatically increase the probability of death. This is especially true if you are a high-risk patient – someone over the age of 50 with any comorbidities. In other words, by the time the disease has progressed to the point you need hospital care, your risk of dying is much higher, along with a far higher risk of long-term lung, heart, neurological and other complications for those who do survive.

Even throughout 2021, the US medical establishment led by the US Federal government continued to claim there were no prophylactic (preventative) treatments or early treatments for COVID-19. The same goes for the developed countries of Europe. If you get a COVID-19-like illness, your doctor will probably tell you to just go home and wait for it to get so bad you have to go to the hospital – at which point the likelihood of death is rather high. Are they crazy? Or do they really want the worst possible outcomes? I would call this serious medical malfeasance.

How many deaths could have been prevented by promoting the use of early treatments instead of actively discouraging it? It has been estimated that 85% of US COVID-19 deaths could have been prevented if early treatment had been used. What a shameful legacy the US medical establishment has left behind.

There has been extensive research into prophylactic (preventative) treatments and early treatments for COVID-19. To see a summary of these studies, broken down by drug and ordered by effectiveness, with a full reference list of the studies, take a look at COVID-19 Studies:

https://C19Early.com/

In addition to the summery data for all drugs, there are separate summery pages for each separate drug with a full list of the studies for that drug.

COVID-19 has three major phases. Early treatment addresses the first phase – viral replication. The next two phases of COVID-19 are unpredictable and of great concern: an exaggerated inflammatory response – the cytokine storm – and an exaggerated blood-clotting response. Both of these exaggerated responses can result in extensive damage to body organs and death. Both of these aspects of COVID-19 respond well to appropriate multidrug treatment.

Early COVID-19 treatment requires a multi-drug approach to ensure the best results. That means that no single drug taken by itself will produce satisfactory results on a regular basis. The drug treatment must change as the disease progresses from one phase to the next as each phase of the disease requires a different treatment system.

The treatment options involve “off-label” use of common drugs. Off-label use is when a medication is used for a purpose for which it is not currently licensed – at your doctor’s discretion. Roughly 20% of all prescriptions are written for off-label

uses of prescription drugs so off-label use is a very common practice in medicine. Many drugs even come with a list of recommended off-label uses. What a doctor is looking for is a biochemical pathway that will work against the illness.

Hydroxychloroquine (HCQ) is a widely used, safe and inexpensive malaria drug that was shown to be effective against COVID-19 when used as part of a multi-drug early treatment system. HCQ is on the WHO's list of Essential Medicines. HCQ is also used off-label to treat systemic lupus and rheumatoid arthritis and has several other common off-label uses. HCQ has been shown to be most effective as a prophylactic (preventative) or for treating early stage COVID-19.

The Chinese government mandated HCQ be used for COVID-19 early treatment in February 2020 – about three months after the pandemic started in China. The Indian government made it a national policy to recommend HCQ to be broadly used for the prevention and treatment of COVID-19 in March 2020. Both countries have very low per capita death rates, but to be fair, there may also be other factors at play. India, for instance, has moved on to using Ivermectin with great success.

During the same period, the US and European countries essentially banned the use of HCQ (as well as Ivermectin, another early treatment drug) – or any other early treatment, for that matter – and all have very high per capita death rates. Doctors were threatened, fired and many lost their medical license for daring to provide early treatment to COVID-19 patients – a few were even sent to prison for providing early treatment for COVID-19. Why would an advanced county discourage early treatment for a potentially deadly disease?

HCQ is an inexpensive "off-patent" drug in common use throughout the world with a 65-year track record and is commonly available over-the-counter (i.e., without a prescription) in most countries. How inexpensive is HCQ? About $1 per pill in the US. The competing drug – remdesivir – given EUA status and used as the de facto hospital treatment – has a high toxicity profile with severe side effects and costs over $3,000 per treatment – and can only be used in a hospital setting. The mortality rate with remdesivir has been high and as of November 20, 2020, the WHO recommended against using it – even as the US continued dictating the remdesivir hospital treatment protocol throughout 2021.

By March 2021, nearly 200 published studies had shown HCQ to be safe and effective for early treatment of COVID-19. There have also been several fraudulent studies showing HCQ to be harmful and ineffective by using known toxic doses – which is rather immoral and unethical – or by only using HCQ in late-stage treatments – when it is known to be much less effective. One fraudulent study was published in The Lancet – one of the world's most prestigious medical journals. The large study published on May 22, 2020 was shown to be fraudulent shortly after publication – the data for the study had been made up – that's right, fabricated – the study never actually happened. How did a completely fraudulent study make it

through the peer review process and get published – especially in such a prestigious medical journal? Who would have gone to all that trouble to falsify such a study?

The fraudulent study was quickly withdrawn on June 4, 2020. You can find the retracted fraudulent Lancet paper here:

https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31180-6/fulltext (copy/paste entire URL, remove extra space after each line)

The fraudulent Lancet paper was used as an excuse to stop most government HCQ clinical trials and withdraw HCQ EUA status on June 15, 2020 – over a week after the fraudulent Lancet paper had been retracted. The FDA has subsequently refused to reissue the EUA for HCQ.

You should note that when the fraudulent Lancet paper was first published, it was a major front-page news story and the media made a big deal over how dangerous HCQ was – in spite of a 65-year safety record and in spite of HCQ being on the WHO's list of Essential Medicines. However, once the study was shown to be a fraud, the news media went silent. Such a significant fraud being published in a prestigious publication should have been big news – but instead, it was buried. So much for journalistic integrity.

Ivermectin (IVM) is another inexpensive off-patent drug that has been studied and shown to be effective against COVID-19 – even more effective than HCQ. Ivermectin is an anti-parasitic drug that has been used to treat hundreds of millions of people all over the world for head lice, skin rashes and parasitic worms with a 45-year track record. Ivermectin is also on the WHO's list of Essential Medicines. Ivermectin can be used as a prophylactic (preventative) and early treatment for COVID-19 and is now the preferred primary drug for COVID-19 treatment protocols. Ivermectin can also be used during the later stages of COVID-19.

Ivermectin has been widely studied in recent decades and has been shown to be very effective against a long list of RNA viruses. It is even known to be effective against many DNA viruses. Thus, it is not surprising that ivermectin is also very effective against SARS-CoV-2 – especially when combined with other complementary drugs and supplements.

India made the headlines for a huge COVID-19 spike around May 2021. What did not make the news was how short lived that spike was once ivermectin was distributed to the populace. Up to that spike, the India's per capita mortality rate was only 10% of the US per capita mortality rate. WHO Chief Scientist of India Saumya Swaminathan was served with a lawsuit in May 2021 and now faces the death penalty for the deaths and injuries resulting from dissuading the use of ivermectin – which resulted in its exclusion from early treatment in the Indian state of Tamil Nadu. Swaminathan stands accused of initiating a false propaganda campaign against ivermectin and inducing the public to refuse to use ivermectin.

Fluvoxamine is a more recent discovery and has undergone at least one small double-blind placebo-controlled randomized trial showing safety and effectiveness against COVID-19. Fluvoxamine is a selective serotonin reuptake inhibitor (SSRI) that is used for the treatment of obsessive-compulsive disorder as well as for other conditions, including depression. Fluvoxamine reduces the expression of inflammatory genes and this is why it can work against COVID-19.

The science now shows that ivermectin distribution campaigns have repeatedly led to rapid population-wide decreases in morbidity and mortality.

If you want early treatment for a potential COVID-19 infection, you will need to find a doctor that is both knowledgeable about COVID-19 early treatment protocols and is willing to prescribe drugs for those treatment protocols. Groups such as Association of American Physicians and Surgeons (AAPSonline.org), American Frontline Doctors (AmericasFrontlineDoctors.org) and Front Line COVID-19 Critical Care Alliance (Covid19CriticalCare.com) may be able to help you find a qualified local doctor or a remote doctor providing telemedicine.

One highly regarded peer reviewed and published protocol is *Multifaceted highly targeted sequential multidrug treatment of early ambulatory high-risk SARS-CoV-2 infection (COVID-19)* published in Reviews in Cardiovascular Medicine, 2020, 21(4): 517-530 DOI: 10.31083/j.rcm.2020.04.264:

https://rcm.imrpress.com/article/2020/2153-8174/RCM2020264.shtml

An earlier protocol published in the American Journal of Medicine is *Pathophysiological Basis and Rationale for Early Outpatient Treatment of SARS-CoV-2 (COVID-19) Infection*:

https://www.amjmed.com/article/S0002-9343(20)30673-2/fulltext

This protocol built on an earlier protocol developed for treating the original SARS-CoV-1 virus published in 2005.

Another protocol for prevention and early treatment (I-MASK+) is published by the Front Line Covid-19 Critical Care Alliance – the MATH+ protocol is used for hospital treatments:

https://Covid19CriticalCare.com/covid-19-protocols/

Then there is the Thomas Borody protocol that includes ivermectin, doxycycline and zinc, along with vitamin D3 and vitamin C.

A list of published protocols is available through C19 Protocols:

https://C19Protocols.com/

Additional protocols are awaiting peer review and publication.

Note that there is no good way to tell the difference between COVID-19 and many other viral respiratory diseases – we have already covered the reasons in detail. However, since these early treatment protocols are generally antiviral and will generally help the immune system against common respiratory viral infections, there are no known reasons not to apply these protocols to other viral respiratory infections – there are few risks and strong benefits. A competent doctor who understands these protocols should provide guidance.

Studies have shown that low levels of vitamin D correlate strongly with higher death rates. Thus, you should be able to reduce the number of COVID-19 deaths by providing appropriate levels of vitamin D. But the issue may not be just a vitamin D deficiency. If you have a vitamin D deficiency, you probably also have deficiencies in other vitamins and minerals, which were not looked at during these studies. So, there could be a larger nutritional issue at play here. In the end, poor nutrition will adversely impact your immune system and reduce your chances of a good outcome.

The commonly recommended supplements for improving immune response include vitamin D3, vitamin C, vitamin K2 and magnesium.

The current science strongly suggests that a diet low in linoleic acid – resulting in low levels of oxidized linoleic acid metabolites (OXLAMs) – is protective from severe COVID-19 disease states such as acute respiratory distress syndrome (ARDS). Linoleic acid is the common component of most refined seed oils used in most processed foods – avoiding processed foods and seed oils will help you to avoid most linoleic acid.

Studies have shown excellent results in reducing viral loads using hypertonic saline for nasal irrigation and gargle.

One can argue that if the US and other countries had been proactive with early treatments and had been willing to use inexpensive and effective drugs and nutritional supplements for both preventative purposes and early treatment, there would be no need for COVID-19 pseudo-vaccines. Remember, a safe and effective alternative treatment must not exist in order to justify an EUA and thus the very existence of a safe and effective early treatment would invalidate the existing COVID-19 pseudo-vaccine EUAs. Do you see an obvious conflict of interest here?

Predicting Deaths

The bottom line is this: How many people are going to die *from* COVID-19 as a result of this pandemic? What will be the eventual fatality (death) count? We will explore several ways to guess. But keep in mind that we are using the published data for

these guesses and I have already shown that the published figures have serious issues. Thus, the guesses will have the same issues as the underlying published data. The assumptions used for the guesses also have issues. So, keep these things in mind as you read through this section. A guess is just a guess.

Returning to our May 24, 2020 data, there were 97 thousand "COVID-19 deaths" and 1.6 million cases reported. We have already discussed why these figures are suspect but we will use then because they are the officially published data. These numbers yield a case fatality rate of 6.1%. If you assume 50% of the US population gets COVID-19 and this death percentage stays the same, we can guesstimate the pandemic will kill almost 10 million people – roughly five times the number of the 1918 pandemic when scaled to the current US population. If we use our guesstimated 10 times scaling to account for under testing, this drops to 0.61% – only about 1 million dead – roughly half that of the 1918 pandemic scaled to the current US population.

If we use the April 25, 2021 numbers – 32.1 million cases and 571 thousand deaths, we get a case fatality rate of 1.78% and can guesstimate the pandemic will kill almost 3 million people. If we use a more conservative 5 times scaling to account for under testing given the much higher testing rate, this drops to 0.35% and thus only 580 thousand people may die from this pandemic.

Still, this suggests the case fatality rate has fallen by two thirds from May 24, 2020 to April 25, 2021. That's quite an improvement. But the numbers don't provide any clue as to why this has happened. Is it due to the way numbers are accumulated and reported? Is it due to the pandemic moving into a younger population with a commensurate lower death rate? Is it due to better medical procedures for treating intensive care patients? Unfortunately, we don't know.

The real death percentage can shift dramatically as the pandemic continues. As the pandemic moves through new segments of the population, those new segments may be more or less likely to die compared to previous segments of the population. As the treatment of critical care patients improves with experience, you expect the percentage of critical care patients surviving to improve. And current data shows the survival rate of critically ill COVID-19 patients has at least doubled over the last many months and is now similar to other comparable illnesses.

Sounds dreadful, doesn't it? I'm sorry – it's a pandemic and a lot of people are going to die. Just keep in mind that guessing at the eventual death rate is still guessing, no matter how many decimal places you use. Or put a different way, extrapolating suspect data into fanciful results is a fool's errand. And remember, we are working with highly suspect numbers.

Let's look at a second method to guess at the eventual death count. For this method, we start with a monthly death count. The April 2020 COVID-19 death count as reported on May 29, 2020 by the CDC was roughly 50 thousand COVID-19 deaths.

The data was at least a month old at the time so the data should have been sufficiently stable. Pandemics tend to run for roughly 2 years so we can extrapolate that to 24 months with the same monthly death count. This yields 1.2 million deaths in the US.

If you compare "COVID-19 deaths" to "Pneumonia and COVID-19", the death rate drops by half. That would lower the guess to only 600 thousand deaths using this method. Given the primary cause of death from COVID-19 is from pneumonia related issues, this may be a better number.

Note that we have assumed the pandemic will run continuously at the same level for 24 months and then suddenly stop. As of mid-February 2021, the monthly death rate has averaged roughly 40 thousand deaths per month over the last 12 months. If we were to simply double this to 24 months, we get a guesstimated 980 thousand deaths by the end of the pandemic.

If you want the answer today, you must predict the future – which is notoriously unreliable.

On July 15, 2020, the Arizona data showed that 0.034% of the Arizona population had died from COVID-19. On February 21, 2021, the Arizona data showed 15,505 total COVID-19 deaths – 0.21% of the Arizona population. With 808 thousand reported cases, that is a case fatality rate of 1.9%. On the same day, the US data showed almost 500 thousand COVID-19 deaths for a per capita death rate of 0.15% and 28.8 million cases for a case fatality rate of 1.8%.

The per capita death rate graphs tell an interesting story:

https://ourworldindata.org/coronavirus-data-explorer?zoomToSelection=true&time=2020-03-01..latest&country=USA~GBR~BEL~SWE&region=World&deathsMetric=true&interval=total&perCapita=true&smoothing=0&pickerMetric=total_deaths_per_million&pickerSort=desc (copy/paste entire URL, remove extra space after each line)

Looking at the per capita death rates for early July 2020, Belgium was the highest with 0.086%. The USA was at 0.041%. The per capita death rates reported for September 16, 2020 were 0.086% for Belgium and 0.060% for the USA. By November 13, 2020, this had increased to 0.121% for Belgium and 0.074% for the USA. By December 16, 2020, this had increased to 0.158% for Belgium and 0.092% for the USA. By April 25, 2021, this had increased to 0.206% for Belgium and 0.176% for the USA.

You may be wondering why I picked Belgium for this discussion. Simple. They have consistently had the highest per capita death rate for a country with a significant population (11.6 million). This is interesting because there is a reasonable probability that the US or any European country will achieve a similarly high per

capita death rate if given sufficient time. Thus, Belgium may be a good indication of where we are all headed.

If you extrapolate the curve, you can guesstimate the per capita death rate will reach 0.2% to 0.25%, at which point the deaths may stop. Thus, this may be the point at which the pandemic is over for Belgium – or any other country that gets there. If you are an optimist, this means the pandemic is close to being over. If you want to be pessimistic, that may just be a plateau before the next significant increase.

Let's move on to consider the weekly graph of all deaths against the averaged historic data of weekly deaths. Weekly numbers above the average numbers represent excess deaths that are presumably caused by some current phenomenon – such as the current pandemic. This method may do a better job of separating the folks that were going to die anyway from the folks that died primarily from COVID-19. Here is a link to the CDC data on excess deaths associated with COVID-19:

https://www.cdc.gov/nchs/nvss/vsrr/covid19/excess_deaths.htm

As you would expect, there are significant excess deaths from COVID-19 during the COVID-19 peaks. But what is more interesting is that there is a persistent level of excess non-COVID-19 deaths across all of 2020 and most of 2021 - the first quarter of 2021 was almost normal.

Estimates in early 2021 were that between 25% and 50% of all excess deaths during this pandemic were not from COVID-19. If you take into account the many issues we have already discussed, the non-COVID-19 excess death count may be higher.

But this just begs a different question. Where did all of those non-COVID-19 excess deaths come from? Was it because the medical system was so focused on COVID-19 that they ignored the common fatal disease states such as cardiovascular disease and cancer that kill a lot of people each year? How about trauma injuries? Were doctors refusing to treat patients? Or were people afraid to go to their doctors for treatment? Or were people no longer able to get to their doctors for treatment? Or were people so stressed out by losing their jobs and/or being isolated that they were committing suicide? Or were people dying from excessive self-medication while trying to cope?

Conclusions on Death

To conclude this talk about death, let's ask the question: How important are these numbers? They are probably less important than you think. Once a pandemic enters a population without a concerted effort to stop it – i.e., tracking down and treating the infected, the pandemic is free to run – and it will run its course. In the end, the numbers are just going to be statistics. The numbers serve no real utilitarian medical purpose during the pandemic. However, the numbers are likely

to be used for all kinds of political purposes – i.e., psychological manipulations – so be warned.

For all of the reasons I have discussed, there is a high likelihood that the published numbers of COVID-19 deaths are significantly overstated and thus include a substantial number of non-COVID-19 deaths. The argument is not whether or not people got sick or died – the argument is whether or not the sickness or death was due to COVID-19. This pandemic is probably much less severe than the published numbers indicate – specifically, the death rate *from* COVID-19 is likely to be much lower than advertised. Due to a high false positive rate in confirmed, suspected and inferred cases, the published COVID-19 death rate may be 2 to 5 times higher than actual – perhaps even higher.

Let's return to the 1957 pandemic for a moment. Scaled to the current US population, 222 thousand people would have died. The published number of dead from COVID-19 was 600 thousand people for June 15, 2021. But as we have seen, the numbers from confirmed, suspected and inferred cases contain a high percentage of false positives. Thus, it may be reasonable to conclude that the COVID-19 pandemic is no worse than the 1957 pandemic and perhaps significantly better. Since no one got very upset during the 1957 pandemic, why is everyone so upset during this pandemic?

Long Haul COVID-19

You should also consider long-term disability caused by COVID-19 – sometimes referred to as long haul COVID-19 or long COVID-19 or long haulers. Just because you don't die from the disease does not mean you will fully recover from the disease. This syndrome has been reported following cases ranging from very mild to very serious. Remember the ACE2 receptors all around the interior of your body? You may be left with damaged organs. That damage may remain for months, years or the rest of your life.

There is little published data to help assess long haul COVID-19 as of December 2020. So, it is impossible to say what percentage of COVID-19 infections will turn into long haul cases. The syndrome appears to be related to a combination of vascular (blood vessel) damage, neurologic (nerve) damage and autoimmune (inflammation) damage. The combined damage can produce a wide range of symptoms that have no obvious cause and simply persist month after month.

There are no known treatments for the syndrome. And you should note that other viral infections can also produce long haul affects.

By April 2021, studies are showing that ivermectin can be useful in treating long haul COVID-19. One hypothesis is that long haul COVID-19 is actually Mast Cell Activation Syndrome (MCAS) – whether that is from a pre-existing undiagnosed case that was made worse by COVID-19 or one caused by COVID-19.

Infection Rate

Let's return to the infectivity rate discussed earlier. Wouldn't it be nice to know what percentage of the population has been infected with COVID-19 and is now part of the immune herd? Or put another way, what percentage of the population remains to be infected before the pandemic runs its course and becomes an endemic disease?

By the beginning of October 2020, the WHO (World Health Organization) estimated that 10% of the world population had been infected. That's 760 million out of 7.6 billion. That figure is for the world population and is only a guesstimate. The John Hopkins data for the same date shows 35 million cases worldwide and 1 million deaths worldwide. That works out to roughly 21 times more infections than cases. I used 10 times scaling to account for under testing in the US for early in the pandemic when testing was limited and 5 times scaling for later in the pandemic when a lot more testing was available.

The WHO's estimate of infections yields an infection fatality rate of 0.13%, which seems low based on other published numbers. But given the world's younger average population and the wide use of HCQ and Ivermectin throughout many of the world's populations, perhaps it is not so far off. This places the COVID-19 pandemic in a similar category to a bad flu season.

As you can see, there are a lot of unknowns. We don't know how many people have already acquired COVID-19 and recovered. We don't know how many people remain to get COVID-19. We don't know what percentage of otherwise healthy people who get the COVID-19 will die from the disease. We don't know how many people will successfully seek out early treatments and avoid hospitalization. We don't know how much the treatments for COVID-19 – or the side effects of COVID-19 – will improve and thus how that will affect the number of very ill people who survive instead of dying. We don't know if a vaccine will be effectively deployed before the pandemic runs its course. It will likely be well after the pandemic before we have a decent estimate of what really happened.

Preventing COVID-19

Now let's turn our attention to reducing our probability of catching COVID-19. Is there any magic or anything special we need to do? Not really. Just do the same old stuff that's been taught for decades. Here's a link to the CDC's recommendations:

https://www.cdc.gov/coronavirus/2019-ncov/index.html

It should be emphasized that the following guidelines are good practice in general, especially during the annual cold and flu season. You should always be following

these guidelines because they work for all of the common infectious respiratory diseases.

The basic steps are very simple:

1. Get people to stay home when they have symptoms or feel sick
2. Wash your hands as needed – soap and water
3. Don't touch your face with dirty hands
4. Maintain your immune system – nutrition, sleep, exercise, etc.
5. Get people that are particularly vulnerable to take extra precautions

The SARS-CoV-2 virus spreads most easily directly from person to person and less easily indirectly via other surfaces. This is mostly due to the amount of viable virus that can be transmitted and this determines the likelihood of transmission. In microbiology, this is the concept of the minimum infectious load needed to transmit an infection. Note that the minimum infectious load has not been determined for the SARS-CoV-2 virus but the current evidence suggests the infectivity is similar to most other viral respiratory infections such as the colds and flu.

The virus degrades outside the body and thus infectivity drops rapidly with time at normal room temperatures. Exposure to direct sunlight speeds the degradation. For this reason, most surfaces will decontaminate themselves and no disinfection is needed. You don't need to sterilize your environment – you just need to reduce the infectious load. In other words, the same level of cleaning used to guard against colds and flu should suffice. Since soap and water works on your hands (soap damages the enveloped virus's capsid), soap and water will also work for most other surfaces – so no disinfectants are needed.

Having a good immune system is very important to preventing any infection. Your body's immune system is very capable if it is well cared for. The standard guidelines of good nutrition, regular exercise, enough sleep, low stress, social connectedness and a low toxin exposure will keep your immune system in top shape. These very same guidelines also reduce the common comorbidities – i.e., things that increase the likelihood of worse outcomes – such as obesity and high blood pressure. Thus, a lousy lifestyle – whether that is due to socioeconomic conditions or bad choices – leads to the common degenerative diseases as well as an impaired immune system.

Some people with COVID-19 are asymptomatic – meaning that they do not feel sick and they do not show any signs of being sick. People can be asymptomatic prior to becoming symptomatic (i.e., pre-symptomatic – during the incubation period) or they may never become symptomatic because they have a very mild case. In theory, you may return to being asymptomatic as your body finishes clearing an infection. Such is life. But the same applies to the other common respiratory infections.

When looking at infectious respiratory diseases, people are generally considered to be infectious (i.e., able to transmit the infection) when they are symptomatic and

they are generally considered to be not infectious or not very infectious when they are asymptomatic – i.e., when they don't have any symptoms and don't feed sick.

So how did we get to infectious asymptomatic COVID-19? Fear mongering and bad science. Fear – False Evidence Appears Real, or False Evidence made to Appear Real. There are no studies I can find to document any significant number of confirmed asymptomatic cases that are also infectious – that is not the way common infectious viral respiratory diseases work. In fact, a huge Chinese study in Wuhan during the summer of 2020 involving over 9 million people found no asymptomatic transmission.

Even the CDC admits that a face-to-face conversation lasting at least 15 minutes at the normal talking distance of less than 6 feet – without any protection – is generally needed to even start to have a significant risk of transmission. The CDC 15 minutes at under 6 feet rule is based on statistical distributions under assumed conditions.

There will be a transition period during which you go from the asymptomatic incubation period to symptomatic and it may take you a bit of time to realize you are no longer feeling well. But that will be a short transition period of perhaps an hour or two. Unless you are interacting closely with others during this period, there will be a low probability of infecting others. If you should start feeling sick, you should tell others and go home – it is the polite thing to do.

In any case, the transition at the end of the incubation period where you may be infectious and mostly asymptomatic is not a significant driver of infectious spread within the population.

How infectious someone is will depend on how much virus that person is shedding and that is generally thought to correlate strongly with symptoms. This is common to most infectious viral respiratory diseases. Thus, if you have no symptoms and feel fine, you are either not diseased or you are not very infectious.

If you treat everybody you meet as if they are infectious and take the most basic of precautions, you are less likely to do the wrong thing by mistake and become infected should you encounter someone who is actually infectious.

Social and Physical Distancing

The historic concept of social distancing had to do with preventing social classes from mixing. The rich should not mix with the poor. The whites should not mix with the blacks. You social distance from your inferiors – however or whomever you define as your inferior. In other words, social distancing was based on prejudice. The Bogardus Scale developed by Emory Bogardus in 1924 is used to measure the willingness of people to interact with members of other social groups.

The concept of physical distancing being applied to infectious disease started in the late 1800's when German bacteriologist Carl Flügge showed microorganisms in droplets expelled from the respiratory track was a means of disease transmission – they were called Flügge droplets. He went on to propose using masks to stop Flügge droplets from causing infections to open wounds during surgery in 1897.

William Wells further quantified what happens to Flügge droplets with the Wells curve in 1934 – showing a relationship between droplet size, time and evaporation, formalizing the 2-meter (6.5 feet) distance for larger droplets to hit the ground while smaller particles desiccated and became airborne.

The 2-meter distance was derived from a set of assumptions about how fast droplets were expelled and the relative evaporation rate in still air. The larger droplets follow a standard parabolic ballistic curve. As you decrease the distance below 2 meters, the larger droplets will contact you – starting at your feet, then your legs, then your torso and eventually your face if you get close enough. As you increase the distance beyond 2 meters, the larger droplets will all hit the ground – further and further from you. Smaller droplets dry out before hitting the ground and become airborne and are free to travel long distances. This will be explained in more detail shortly. All this hinges on statistical distributions under assumed conditions.

Then came the Bush administration's work on combating bioterrorism and new zoonotic animal disease transfers. By 2005 there were working documents. In 2006 a high school science project on teenage social networks was integrated into her father's disease spread model that suggested closing schools would cut infections by two orders of magnitude. By 2007, after further studies of the 1918 flu pandemic, papers had been published suggesting shutdowns and isolation were the way to go. Papers to the contrary that argued the ineffectiveness of shutdowns and predicted social and economic disaster from closing most of society were mostly ignored. And the rest, as they say, is history.

People have always known that staying away from the sick was protective. This is why sick people have been isolated throughout history. But it was only recently that the concept of social networks was refined into formal public health policies that isolate the healthy.

If you are going to converse with someone for an extended period of time, physical distancing can make sense. But if you are both asymptomatic and feel fine, very little will be accomplished by it. Asymptomatic people do not need to fear each other.

For similar reasons, normal social interactions between asymptomatic people – be that shaking hands or hugs – will not be any more dangerous than it has been over the last few thousand years. Humans are very social creatures and social interactions are very important to the health and wellbeing of people.

Masks and Respirators

The spread of a virus through the air can take multiple forms. For instance, if you are coughing, sneezing or even just talking, you are expelling mucosal particles. Regular breathing expels relatively few mucosal particles. The mucosal particles range in size from big enough to see to very small. If you are coughing or sneezing, you should stay home – unless you have to go see your doctor.

The larger particles have a higher mass and travel in straighter lines, following a standard parabolic ballistic curve as they are slowed by air resistance and pulled down by gravity. These particles do not tend to travel very far before falling to the ground and are easy to catch using a course filter such as a multi-layer cloth mask.

Smaller particles have a lower mass and are more susceptible to air currents and less susceptible to gravity and inertia. The smallest of these particles are able to travel on air currents and require a much finer filter to capture.

Add to this the relative humidity. In higher humidity conditions, mucosal particles retain their water and thus their size and weight – and more of them fall to the ground. As the humidity drops, the evaporation rate goes up. Smaller particles have a higher surface area to volume ratio compared to larger particles. In other words, smaller particles shrink in size faster relative to larger particles due to evaporation. Thus, smaller particles can completely desiccate under dryer conditions and become sufficiently small and light to drift on air currents.

A mask is designed to catch and stop mucosal particles along a direct path. These particles have enough mass that they are propelled directly from your mouth or nose into the mask material and mostly captured – but not always captured under all conditions. Even though masks are relatively course filters, they will catch and retain most of the larger mucosal particles as well as many of the smaller midsized mucosal particles and even some of the small sized mucosal particles. Thus, if you are symptomatic and infectious and can't figure out how to stay home – or you are trying to see your doctor, you wear a mask to protect others from your mucosal particles.

Masks are not sealed and are not fine filters and thus the smallest mucosal particles that ride on air currents will escape through the mask material or out the edges of the mask. Masks do slow and disperse the air stream from your mouth and nose, which will act to disburse any concentrated plume of virus. But this is only of concern if you are not physically distanced.

Per the FDA: "While a surgical mask may be effective in blocking splashes and large-particle droplets, a face mask, by design, does not filter or block very small particles in the air that may be transmitted by coughs, sneezes, or certain medical

procedures." Surgical masks are regulated by the FDA and must meet certain minimal standards. Cloth masks are unregulated and generally less effective.

Masks provide very little benefit when it comes to people who are physically distanced.

This takes us back to the concept of minimum infectious load. The more virus you are exposed to, the higher the probability you have of being infected. In general, it takes a minimum infectious load to transmit an infection. Anything less and your body's immune system can prevent the infection. Big mucosal particles can carry a much higher viral load compared to smaller particles. One big mucosal particle may be just as infectious as a bunch of smaller mucosal particles. You want to avoid either exposure. A well-functioning immune system raises the minimum infectious load needed to transmit the infection.

SARS-CoV-2 and influenza viruses are small. Really small. 120 nm (nanometers) or 0.12 μm (micrometers or microns) small. Less than a wavelength of violate light small – the dividing line between violet and ultraviolet light is at 400 nm – so roughly a third of that. As a point of comparison, a human hair will average around 100 μm – roughly 800 times larger.

Smoke particles are of similar size to common respiratory viruses. A mask will NOT filter out smoke. So, a mask will NOT filter out viral particles.

Thus, if you are infectious and wear a mask and have a long conversation with someone at close range, you can easily create a large enough exposure to infect the person you are talking to – even if the other person is also wearing a mask. If you are engaging in this type of behavior, you clearly do not understand infectious viral respiratory diseases or the limitations of a mask. That is in addition to you being a very rude person – by going out in public while sick and engaging in this type of behavior.

RNA viruses such as SARS-CoV-2 degrade outside the body over a period of minutes to hours – depending on conditions. Thus, desiccated viral particles begin to deteriorate and over time lose their ability to cause a new infection. The data on how quickly this happens under different circumstances is lacking – most of the studies only check for detectability of the RNA fragments, not viability of virus particles. Also, the variation in circumstances is huge – so it is not possible to make a simple clear definitive statement.

Masks work equally well in both directions. This is why medical people wear a mask when seeing potentially infectious patients. The mask is to stop splashed bodily fluids and larger mucosal particles expelled by the patient from entering the medical person's mouth and nose along a direct path. They offer essentially no protection from airborne viral particles.

Note that the protection from masks is only provided for someone directly in front of your face. If you are going to cough, sneeze or talk to someone while wearing a mask, face the other person so the mask can do its job. This is a very different reflex from turning away and coughing or sneezing into your elbow when you are not wearing a mask.

Masks need to be changed on a regular basis – at least every couple of hours. Your mask is up against your face and because of your constant breathing, the mask will become damp and become a good environment for accumulating fungi, bacteria and viruses. Every time you touch your mask, whether on the outside to adjust it or on the inside to scratch an itch, you are contaminating your mask. At the same time, every time you touch your mask, whatever is on your mask will contaminate your hands. Damp dirty masks quickly become a source for transmitting infections. The same is true with respirators.

Masks (and respirators) have an effective enclosed volume. The larger the enclosed volume of your mask, the more of a previous breath will be retained within the mask and rebreathed. This will effectively raise the CO_2 content and lower the O_2 content of the air you are breathing. How detrimental this is will depend on the specific concentrations, the length of exposure and how sensitive you are to those conditions.

Remember, your goal is to reduce your viral exposure by appropriate practical methods applied consistently. Masks are not magic. Masks will not make up for bad decisions, bad habits, poor hygiene or a defective immune system. In other words, masks are highly overrated in a public setting. Conversely, if you think you need a mask to protect others – because you might be infectious, you should not be out in public.

A study of 14 randomized controlled trials with lab confirmation of infection published by the CDC in May 2020 concluded: "We did not find evidence that surgical-type face masks are effective in reducing laboratory-confirmed influenza transmission, either when worn by infected persons (source control) or by persons in the general community to reduce their susceptibility." It should be pointed out that cloth masks are even less effective than surgical-type masks. Influenza has similar environmental transmission characteristics compared to SARS-CoV-2.

On April 24, 2020 the FDA issued an EUA (Emergency Use Authorization) for cloth and other non-surgical face masks for source control – i.e., you wear the mask to reduce the spread of your disease to someone else by catching the larger mucosal particles. The EUA is an authorization for an investigational - i.e., experimental - drug, procedure or device – legally different from an approval. Thus, the FDA considers cloth masks to be experimental devices - they have never been approved as a medical intervention. Note that the EUA gives the manufacture of the mask complete liability protection under the PREP Act so it does not matter if the mask works or not – if you or someone else gets COVID-19 while one or both of you are

wearing a mask, neither of you can sue the mask maker because the mask did not work.

The EUA makes clear that cloth masks are NOT intended for antimicrobial or antiviral protection or for infection prevention or reduction – they are NOT for respiratory protection.

Respirators are very different from masks. A respirator is designed to protect the person wearing the respirator from airborne contaminants in the environment. To provide this protection, the respirator must be properly fitted, sealed against your face and the seal must be tested. People have different face shapes and different respirators are designed to fit different face shapes. Thus, you must find a respirator that is designed for and fits your face shape. Then it takes training and practice to put on a respirator and validate a good seal. A respirator with a bad seal is no better than a mask and may be worse if it has an unfiltered front valve. As a result, respirators are not recommended for the general public.

Most respirators used in industry and for medical purposes are N-95 rated – meaning they stop 95% of all particles that are at least 0.3 microns (300 nm) in size *from being inhaled*. N-95 respirators are not designed for use with tiny RNA viruses such as the SARS-CoV-2 virus that are roughly 0.12 microns (120 nm) in size. N-95 respirators may reduce the inhaled viral load as these respirators have good filter efficiencies – but they will not prevent an exposure.

Contact Tracing

Contact tracing is used to track down the origins of a disease and is commonly used to track many diseases. Properly implemented, contact tracing with treatment and isolation can slow the spread of most infectious diseases and potentially eliminate them from the general population – assuming there are no inaccessible animal reservoirs.

The method is conceptually straightforward. When you discover a person with the target disease, you try to identify everybody the infected person has been in contact with over some period of time – such as the disease's incubation period plus a few days. Then you go to all of the identified people and repeat the process. Each identified person is evaluated and treated for the disease or placed in quarantine. In this way, you find the infected people and isolate them from the general population or otherwise treat the disease and thus prevent further spread of the infection.

Note that the CDC's definition of a contact for the purposes of COVID-19 is spending at least 15 minutes face-to-face with someone at a distance of less than 6 feet without any personal protection equipment – such as a mask. This should give you a good idea of what it actually takes to transmit the disease. Casually passing someone on the street or stopping for a quick hello is not likely to transmit the disease.

There are many factors that can reduce the effectiveness of contact tracing. For instance, if the disease can be spread asymptomatically, there will not be any cause for an asymptomatic person to contact the health system and thus the health system will not be aware of the infectious person other than through the symptomatic people infected – think Typhoid Mary. Or, if the health system fails to encourage voluntary cooperation because they fail to make a good case to the public or they fail to engender trust in the public.

If contact tracing is to work, it must be a committed effort – if done half-heartedly, it is doomed to failure. Contact tracing must be integrated with honest and consistent public education. The public must be educated about the disease, how it spreads and effective methods for stopping the spread. The messaging must be truthful and consistent. Lying to the public is counterproductive and will instill mistrust throughout the public and discourage cooperation.

Contact tracing is quite expensive. It is important to ask if the illness justifies the considerable effort and expense needed to contact trace. For illnesses that have a high ongoing cost to society, contact tracing may be a good option to reduce the cost of treating an illness in the general population or preventing a high death or disability rate. However, many illnesses – such as the common cold or flu – will see a relatively low return on investment so contact tracing is not done in these cases. SARS-CoV-2 probably falls in the latter category.

Rapid Spread and Flattening the Curve

The rapid spread of an infectious disease can produce a large spike in medical cases that can exceed the capacity of available local medical resources – such has hospital beds, medical equipment, medical personal or drugs. You can prevent a large spike in cases – and thus prevent overwhelming the medical system – by "flatten the curve." The curve (the graph of the number of cases over time) is flattened by slowing the rate of spread. The same number of people may still get sick and need medical attention, but now the cases are spread over a much longer period of time so the medical system capacity is not exceeded.

How do you flatten the curve? Simple. You lower the population's probability of transmitting the disease over the period of interest. We already covered ways for individuals to accomplish this. To extend this to the whole population may require extensive public education and perhaps the expenditure of resources to implement the practices. You also need the public's trust and cooperation. If most people participate, this should produce the desired results.

It is important to realize that as long as the infectious disease continues to exist in the general population and as long as a large percentage of the population is vulnerable to the disease, the risk of rapid spread continues to exist. The threat of rapid spread will exist until a high enough percentage of the population has had the

disease and the disease can no longer spread efficiently. In other words, until the population has developed herd immunity. The goal of good public health education is to popularize good hygiene habits and sufficient physical distancing so as to lower the probability of transmitting the infectious disease.

Another way to flatten the curve is to provide preventative or early treatment. For many diseases, preventative or early treatment can stop or slow the progression of the disease. Early treatment usually takes fewer medical resources and may be able to prevent the disease from progressing to a state that requires hospitalization and other limited medical resources.

Stopping SARS-CoV-2

Let's revisit the question of stopping the spread of SARS-CoV-2. We have discussed how individuals as well as populations can lower the probability of acquiring the disease. We have also mentioned early treatment. We have also discussed how contact tracing can be used to track down and isolate cases – assuming the disease justifies the cost. This begs the question: Is it practical to stop SARS-CoV-2 once it has entered the general population and spread widely? Or is it better to just let the disease run its course through the population?

If you want to eradicate the disease, you must find and treat every case and completely eliminate it from the population. If even one case remains to infect a vulnerable population – whether that is a person or from an animal reservoir, the disease will be off and running – again. The cost in terms of contact tracing will be high. The benefit will be the lives saved if you are successful. The risk of failing will be high because perfection is the only acceptable outcome. Remember, to be effective, you must eradicate the disease from all populations of the world at the same time – including in any animal reservoirs – while the population as a whole remains vulnerable.

If you let the pandemic run its course, some percentage of the world's population will get sick and some percentage of the sick will die. The cost in terms of lives lost may be high. The benefit will be great because you now have a population that is mostly immune to the disease (herd immunity) and thus future outbreaks will be limited – the strong survived. The risk will be low as there is a natural tendency for the disease to spread through the population and so the spread will not stop until after herd immunity has been established.

That said, if you can keep the number of infections relatively low for an extended period of time in a mostly unobtrusive way and if you assume you can eventually create a vaccine that the public will take, accepting a low long term infection rate might be a good option. But that requires a lot of assumptions.

What about the case where you are never able to develop a vaccine? There are many diseases for which no vaccine has been developed even though extensive

resources have been applied to the problem over many years. What is the optimum rate of disease spread through the population to get to herd immunity? Is there an unobtrusive way to accomplish this – such as using early treatment so few people are hospitalized? And at what point in the pandemic does deploying a vaccine become pointless? That is, at what point have so many people had the disease that it will be difficult to find the remaining people to give the vaccine to – without inoculating the entire population? Remember, the people who have recovered from the disease will derive no benefit from the vaccine – but will incur all of the risks.

Now let's turn that around. The SARS-CoV-2 vaccination effort really took off in early 2021 using pseudo-vaccines given EUA status in December 2020 and February 2021. It has been anticipated that 50% of the US population will be fully vaccinated by July 2021. If the pandemic is declared over around summer 2021, did the pandemic end due to herd immunity from people recovering from COVID-19 or because of the pseudo-vaccine? The government and media will tell you it was the pseudo-vaccine that saved the day.

The graphs show the US winter 2021 peak was mostly over by late March 2021 when only one quarter of the US population was fully vaccinated and one third of the population was partially vaccinated. The spring and early summer low was followed by a late summer peak in August and September 2021 when roughly 50% of the US population had been fully vaccinated. By September 2021 it was clear that any benefits provided by the pseudo-vaccines were rapidly waning.

My money is on the people who got COVID-19 and recovered.

Why is This Pandemic Different?

Now we turn to an interesting sociology question. What made this pandemic different from the last three pandemics?

A lot of things have changed over the last 50 to 100 years. The world's population and population density has increased significantly. Our transportation infrastructure allows someone to travel between most population centers of the world in a matter of hours. Social media allows (encourages) lies, conspiracy theories, disinformation and propaganda to spread at an alarming rate through the population. A large percentage of the US public – perhaps well over half – now have underlying medical conditions – creating a lot more comorbidities and susceptibility to new diseases. Modern medical technology can keep critically ill people alive for months beyond when they would have otherwise died – occupying intensive care resources for extended periods. Globalization has pushed manufacturing to the cheapest resource locations – including cheaper international labor pools – and that has led to vulnerable supply chains. General technology is far more advanced, and with it, our expectations for controlling our destiny. Let's not forget our changing society, the political climate, centralized media ownership, concentrated business ownership and powerful special interests. And finally, COVID-19 is not the flu.

In past pandemics, life mostly went on and people mostly went about their business. A few very large events got cancelled while other very large events took place. There was not much hysteria. People were not panicked even if they were fearful of the disease. People died and those deaths were accepted and mourned.

So many people died during the 1918 pandemic that they ran out of coffins but society generally kept going. Hospitals were filled to capacity and beyond but society soldiered on. Medical technology to keep people alive for months on end was not available so very sick people just died – requiring fewer total beds for a similar volume of patients. A few large cities closed down entertainment establishments and even schools, but the rest of society mostly continued.

But then came COVID-19 followed by lock-downs and hysteria. Why did this happen? Why did governments choose to place their own healthy populations under house arrest instead of allowing their societies to continue functioning in a normal fashion as happened in prior pandemics? Historically, you isolate those who are sick – not the healthy.

Were lock-downs necessary to flatten the curve or were they counter productive? Would an honest, coordinated public health education program have accomplished the same thing without the hysteria, economic damage and sociological damage? Is it reasonable to think we can prevent the deaths that such a pandemic will bring without eradicating the disease through effective hygiene, contact tracing or a vaccine?

Published research has documented that the spring 2020 lock-downs across Europe produced no net reduction in deaths. The dropping death rates that took place coincident with the lockdowns had already started dropping prior to the lock-down and were the normal natural effect of infection spread that has peaked. Further, when you account for an average incubation period of 5 days and an average of 18 more days to death, you will see there is an average of 23 days from infection to death. There was no significant change in the death rates in the neighborhood of 23 days following the start of lock-downs. Finally, the very same peak and decline in death rates observed in the lock-down countries was also observed in Sweden, which did not implement any lock-downs. Other countries that avoided lockdowns had similar results.

The behavior around the peak is consistent with an increasing perceived risk that causes individuals to change their personal behavior in a way that reduces transmission. The research finds that these behavioral changes had already taken place in the weeks leading up to the lock-downs and thus the lock-downs provided no additional benefit in exchange for all of the harms the lock-downs caused.

Studies published by mid-November 2020 show that lockdowns are very destructive to the general population – both economically and socially, not to mention the issue of destroyed civil rights.

But even with all of this data showing lock-downs were harmful and ineffective, governments were still imposing lockdowns in 2021.

Sweden is an example of a society that bucked the lock-down and hysteria trend and chose the more traditional route. Sweden's approach emphasized basic medical science and honest public education along with individual responsibility and hygiene – the very things we have already discussed. Swedes were encouraged to work from home when practical. Children under the age of 16 continued to go to school and as of June 15, 2020, older children have also returned to school. Anyone who felt ill and the elderly were asked to stay home. Restaurant tables were moved further apart. Congregating at the bar was discouraged. Gatherings of over 50 people were banned. In other words, meet in small groups in open areas with physical distancing. And the Swedes generally did not wear masks – masks were only recommended during rush hour on public transportation for several months before the recommendation was withdrawn.

The Swedes understood the COVID-19 pandemic was a long-term event. The Swedes understood the pandemic was going to run its course, whether they liked it or not. The Swedish philosophy was to flatten the curve unobtrusively and ride it out. This fits with the Swedish lagom way of life – the Swedish lifestyle concept of living a balance and meaningful life.

To be fair, the Swedes have taken the position that very sick people in long-term care facilities should be allowed to die instead of keeping them alive for weeks to months using the latest life support systems. These people are provided regular end-of-life hospice services – including "comfort" medication – and allowed to die. This eliminates a huge burden on the hospital system and goes a long way to preventing COVID-19 cases from overwhelming the healthcare system. However, unlike the US where the hospitalized and those in care facilities are forced to die alone in isolation, the dying in Sweden may have their family around to comfort them.

The Swedish per capita death rate was listed as 0.043% for June 2, 2020 – roughly halfway between the USA and Italy at the time. Sweden's per capita death rate rose to 0.057% by September 16, 2020 while the USA's rate had risen to 0.060%. By December 16, 2020, the Swedish per capita death rate had risen to 0.075% while the USA's rate had risen to 0.092%. By June 15, 2021, the Swedish per capita death rate had risen to 0.143% while the USA's rate had risen to 0.185%. By September 9, 2021, the Swedish per capita death rate had risen to 0.144% while the USA's rate had risen to 0.201%. Until the pandemic is over and the final numbers have been tallied, there is no point in trying to compare the Swedish outcome to the outcomes

of other nations. But early results indicate the Swedes were probably right. Time will tell the tale.

The CHARM (COVID-19 Health Action Response for Marines) study from late 2020 used Marine recruits to provide a near homogeneous group that underwent supervised quarantine, distancing, masking and environmental decontamination with regularly scheduled testing. The results showed that transmission occurred in spite of implementing best-practice public health measures.

Coronavirus Patents and the Road to the Pandemic

You may be surprised to learn that there is a long patent history associated with coronaviruses. Dr. David Martin founded M•CAM in 1998 – an international intangible asset underwriting and analysis firm – with medical patents being of major interest. There are a lot of patents covering most aspects of coronavirus and vaccine technologies associated with them and through those patents it can be shown that laws were broken and SARS-CoV-2 was not novel.

You can listen to Dr. David Martin's interview from July 9, 2021 here:

https://www.brandnewtube.com/watch/a-manufactured-illusion-dr-david-martin-with-reiner-fuellmich-9-7-21_hPChWe1no7nxGDM.html (copy/paste entire URL, remove extra space after first line)

The referenced Fauci/COVID-19 Dossier is available here:

https://ia801807.us.archive.org/28/items/the-fauci-covid-19-dossier-by-david-e-martin-ph-d/The%20Fauci%20-%20COVID-19%20Dossier%20-%20by%20David%20E%20Martin%20PhD.pdf (copy/paste entire URL, remove extra space after each line)

This leads us to a third possible hypothesis for the origin of SARS-CoV-2. The virus was designed and manufactured at the Wuhan Institute of Virology by taking a bat SARS virus and replacing the bat spike protein with a custom-built spike protein that would efficiently infect human cells. The technology for doing the required gene splicing without leaving any extra gene sequences or scars behind has been around for well over a decade and is now cheaply available. In other words, you can create lab viruses with no detectable evidence of genetic engineering left behind in the viral genome.

Terrorizing the Public

Governments around the world employed the psychology of fear appeals to suspend firmly established medical science and take away civil rights. Fear appeals have three major components: the audience, the message, and the recommended behavior. The audience was the governed population. The messages changed over

time – becoming a series of messages that included: protect the hospitals (i.e., flatten the curve); nobody is immune and there is no cure; millions are going to die in the US; your children will bring COVID-19 home from school and kill you and their grandparents; you are going to bring COVID-19 home to your family and kill them; the people you meet on the street are Typhoid Mary – i.e., infectious asymptomatic carriers – and they are a major driver of the spread; the people walking around without a mask are going to infect you even if you are wearing your mask; you are going to die a lonely miserable death from COVID-19; vaccination is the only road back to normal life; 99% of all hospitalized people are unvaccinated – an epidemic of the unvaccinated; vaccination does not prevent you from spreading the disease to others; we have to protect the vaccinated from the unvaccinated; natural immunity obtained by recovering from COVID-19 is a myth – you must still get vaccinated; herd immunity is only possible through vaccination; the virus has mutated and gotten much worse; vaccination is needed to prevent more mutations; you will need booster shots to protect you from the worsening mutated virus strains; unvaccinated people are dangerous – they are horrible filthy people – they are why your friends and family continue to die; you will not be safe until the whole world has been vaccinated – years from now; you will need a vaccine passport to travel or participate in society; anyone who challenges the government's narrative is a danger to society. The recommended behaviors were: stay isolated at home; keep your kids isolated at home; always wear a mask – or two; get your vaccine shots; use as much coercion as necessary to get the unvaccinated people vaccinated; only believe what the government tells you – everyone else is spreading disinformation. They want to you be afraid – very, very afraid.

The worldwide media mostly repeated the government (and pharmaceutical industry) propaganda without question in addition to suppressing all other narratives. Fact-based debate was no longer tolerated. The major media organizations rarely questioned the validity of recommendations or mandates or any of the pseudoscience behind them or the logical inconsistencies or the rewriting of long-established medical science. Sad stories telling of family members dying were everywhere to keep your fears and guilt front and center.

The ownership of the worldwide media has been concentrated into just a few controlling interests. Thus, whatever those few controlling interests decide to broadcast is what the general public will hear – those controlling interests decide what messaging you will be given. You may want to look up who actually owns the major media outlets of the world. All of those "competing" TV, radio and print media outlets are not actually competing because they are owned by the same controlling interests.

On December 10, 2020, the conglomerated news media and big tech social media companies came together to announce the Trusted News Initiative. Credit is given to the BBC for getting the initiative organized. The purpose of the Trusted News Initiative was to promote the vaccine narrative and suppress any information about early treatment or issues with vaccines. The only acceptable narrative was that

vaccines were completely safe and effective and were the only way to rid the world of COVID-19 – and everybody in the world had to have one.

Of all of the major US news media outlets – ABC, CBS, MSNBC, CNN, PBS, Fox News, Associated Press, etc. – only Fox News (e.g., Tucker Carlson) has apparently broadcast any significant reasoned content calling into question the government propaganda and the lack of science used to push the vaccine narrative – not that Fox News is held in high esteem.

The huge tech giants got on board by censoring (deleting) material or deprioritizing search results or deplatforming individuals and organizations for anything that did not agree with the government narrative. Cancel culture was used to silence decenters. Fact checking was turned into double-speak and propaganda validation. I was able to find and review many censored items and found them to be in agreement with established medical science that predated COVID-19.

Even the AMA (American Medical Association) got in on the propaganda. In February 2021 the AMA published their *AMA COVID-19 Guide – Background/messaging on vaccines, vaccine clinical trials & combatting vaccine misinformation*. In it the doctor is told which phrases to use and how to deflect questions and change the subject when faced with an inquisitive patient. The guide even provides sample posts for social media. The only acceptable outcome throughout the guide is vaccination.

Doctors were threatened, fired and many lost their licenses for suggesting that COVID-19 was not the runaway deadly pandemic it was advertised to be and that most deaths would have been easy to prevent using early treatment. Doctors were threatened and lost their jobs for pointing out how the numbers were being manipulated. Many pharmacies refused to fill prescriptions for drugs used in COVID-19 early treatment – or intentionally delayed filling the prescriptions for days. Since when is it up to a pharmacy to refuse a doctor's valid prescription? Not to be left out, lawyers were threatened with disbarment should they file cases that questioned the government narrative.

Have you read *1984* and *Brave New World*? Perhaps you will appreciate the imagery of zombies – mindlessly following lockdowns, wearing masks and getting vaccinated.

Scott Jensen, MD, laid out the acronym Fear Formula. What does Fear Formula stand for? F – frighten people – foment fear to get people's attention. E – provide exaggerated examples – the more extreme examples usually work better. A – accuse someone – people need a scapegoat – be angry and show your animosity – antagonize your foe. R – repeat the examples and accusations over and over – moving the goal posts when needed. F – fabricate fake news – it does not matter how far-fetched it is – if you say it often enough, people will believe it. O – ostracize your opponents – marginalize them – denigrate them - repeatedly. R – reticule any opposing solutions or remedies – repeatedly. M – manipulate the messaging –

change the meaning of their words – redefine terms. U – unite the uninitiated – use group-think against the agnostic – make them feel foolish if they don't agree with you – invite them into your utopia. L – lead late – he who leads late often loses the least – your later lies linger the longest. A – applaud your actions through shameless promotion – take credit for doing good things regardless – proclaim improvements or victory even if none happened – be a great spin doctor.

Look at the CDC presentation by Glen Nowak titled *Increasing Awareness and Uptake of Influenza Immunization* from June 2004. It provides a 7-step recipe for how the CDC was planning on using fear to motivate the population to get their flu shots. Step 3 was: Medical experts and public health authorities publicly (e.g., via media) state concern and alarm (and predict dire outcomes) – and urge influenza vaccination. Step 4B was: Framing of the flu season in terms that motivate behavior (e.g., as "very severe," "more severe than last or past years," "deadly"). The clear intent was to frighten people and then to use that fear to manipulate them.

May I suggest you look up the Delphi Technique and the Hegelian Dialect and how they are used in propaganda?

In addition to outright fear, consider the tactic of an ever-changing confusing sequence of information – with the changes designed to promote confusion. Don't wear a mask, wear a mask, wear several masks, wear fewer masks, wear your mask inside, wear your mask outside in crowed areas, wear your mask outside when you are alone, no mask is required if you are vaccinated, wear your mask after you get vaccinated, you can take off your mask if you and everyone else have been vaccinated – unless the room is crowded. Are you confused yet? That is the whole point of constantly changing the message – to leave you as confused as possible. Once you are confused and unable to think for yourself, you are easy to manipulate.

Researching and evaluating the published literature so you can make an informed decision on what is true and what is propaganda takes a lot of time and effort – you must first find the information and then you must evaluate the quality and reliability of the information. It also assumes you can gain access to truthful historic and current information. This is why it is so important for the people running the show to monopolize the media and discredit any alternative source of reliable (truthful) information. If you can figure out the truth and eliminate your confusion – and thus also eliminate your fears, the people running the show will have a hard time manipulating you to follow their directives.

Archive.org is a non-profit organization that keeps periodic archival copies of web pages and other web content. This allows you to go back and view the historic content of websites. It is a very handy research tool that has taken on new importance recently with the advent of censorship and history revision across the Internet. However, even the historic archives are now being deleted to cover up history. One recent example is the deletion of the archived Amazon pages for Anthony Fauci's 2021 *Expect the Unexpected* book release – after his book release

was cancelled in early June 2021. Why would anyone want to cancel Anthony Fauci's book release and then try to erase all historic references to it?

Let's return to the hypothesis that a bat virus was being studied at the Wuhan Institute of Virology (WIV), where the lab was involved in gain-of-function research that resulted in a human infectious virus and there was an accidental viral release that resulted in infected people. Starting back in spring 2020, there was a significant accumulation of evidence to support this theory, which included US funding for the research. The evidence trails developed into funding from National Institutes of Allergy and Infectious Diseases (NIAID, Anthony Fauci) to EcoHealth Alliance (Peter Daszak) to WIV (Shi Zheng-li, Bat Lady). The evidence trails also show that the Department of Defense (DoD) provided substantial funding for the gain-of-function research.

On June 2, 2021, 3,234 pages of Fauci's redacted e-mails were released. In early September 2021, more than 900 additional pages of documents were released, bringing to light two previously unknown grants. These document releases provide further evidence that the US intentionally funded gain-of-function research both in the US and at the WIV in China with Anthony Fauci's full support – something he denied under oath just prior to the e-mail release.

When I was younger, I often wondered how Hitler was able to bring down Germany so easily. How were they able to send 6 million Jews to the gas chambers without objections? Now that I have lived through this pandemic, I understand just how easy it is to herd sheep and discredit those who do not comply. We have taken the old propaganda and terror methodologies and dramatically improved upon them using everything we have learned about human psychology in the last 90 years. Then we have applied the latest communications technology to spread the propaganda and control the messaging. We rarely have to resort to killing someone to silence them – but the occasional "suicide" is still required.

We should remember Martin Niemöller's poem about 1930s Germany: "First they came for the socialists, and I did not speak out — because I was not a socialist. Then they came for the trade unionists, and I did not speak out — because I was not a trade unionist. Then they came for the Jews, and I did not speak out — because I was not a Jew. Then they came for me — and there was no one left to speak for me."

To paraphrase from the book *Nuremberg Diary* by G.M. Gilbert, 1947, 1961, pages 255 to 256, during the Nuremberg Trial following World War II, Gilbert was talking to Hermann Goering in his cell on April 18, 1946 and asked: "How did you convince the German people to accept all this?" Goering's answer was: "All you have to do is tell people they are being attacked and denounce the pacifists for lack of patriotism and exposing the country to danger. It works the same way in any country."

We are witnessing the rise of the new Jim Crow – based not on skin color but instead on vaccination status or whether you wear a mask. We are witnessing the rise of the new SARS-CoV-2 medical apartheid.

You may find this video on mass psychosis interesting:

https://youtu.be/09maaUaRT4M

One can argue that a group of technocratic and monopolistic rich have become so powerful that they can essentially control the world's messaging and direct what governments will do. It is far easier to manipulate the masses than to overtly take over their government. It is better to be the puppeteer.

Trillions in wealth have been destroyed so that a few can make billions.

What we have witnessed with the COVID-19 pandemic can only be described as unprecedented fraud on a massive – worldwide – scale. The corruption that controls the messaging and produces the resulting terror now pervades many – if not most – aspects of our society. Honest science has been replaced by fraud and terror.

Do you remember the old saying: Follow the money?

Will enough people wake up and realize what is going on and be willing to stand up and stop this train wreck? It is a republic – if you can keep it.

It will be interesting to see what future research reveals when it looks back on the COVID-19 pandemic. What drove decisions? What conclusions will history come to about those decisions and the people in charge? Will history view this as crimes against humanity? Will anyone go to jail for their transgressions? It will be interesting to see what changes take place to the fabric of our society as a result of this pandemic.

You can fool all the people some of the time and some of the people all the time, but you can't fool all the people all the time.

Tyranny and Freedom

"We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness." The Declaration of Independence, 1776.

"We the People of the United States, in Order to form a more perfect Union, establish Justice, ensure domestic Tranquility, provide for the common defense, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity,

do ordain and establish this Constitution for the United States of America." The US Constitution, 1787.

Perhaps the most important principal of the American governing system is that no person is bound to obey any law that is unconstitutional or otherwise unjust. In fact, one can argue that it is the sacred duty of every citizen to peacefully disobey any such law. This concept is referred to as civil disobedience.

The jury trial is one of the primary methods provided by the American governing system to protect citizens from their government and tyranny. If the government creates an unconstitutional or otherwise unjust law, it is both the right and the duty of the citizens to peacefully disobey the law. This may result in the arrest of the citizen followed by the government prosecuting the citizen in the courts. It is then the duty of the 12 jury members to determine if the citizen is correct or if the government is correct. Thus, the 12 jury members are allowed to overrule and/or invalidate any law they think is unjust or unjustly applied.

Even the military has a similar concept to civil disobedience. If any order is given that can be viewed by history as a war crime, it is the duty of the soldier to peacefully refuse to obey that order. Claiming you were following orders is not a valid defense if you are later prosecuted for war crimes. This was made very clear during the Nuremberg Trials following World War II. The Geneva Conventions and their Additional Protocols are international treaties that contain the most important rules limiting the barbarity of war. They protect people who do not take part in the fighting (civilians, medics, aid workers) and those who can no longer fight (wounded, sick and shipwrecked troops, prisoners of war).

The running of a republic requires proactive informed participation by its citizens. Thus, selecting honest and competent people to fill government positions is another primary method to protect citizens from tyranny. This requires the citizens to be educated and informed. This requires honest and competent individuals that are willing to take responsibility for the tasks at hand. This further requires the citizens to vote those people into office and hold those people accountable for what they do.

The only way to preserve our freedoms is to peacefully and actively stand up to tyranny. Are you up to the task?

Crimes Against Humanity

By mid-September, 2021, there were many lawsuits under way.

Cases are being filed in the International Criminal Court in The Hague, Netherlands. One case is being assembled by Reiner Fuellmich who co-founded the Corona Investigative Committee:

https://corona-ausschuss.de/en/

https://t.me/s/ReinerFuellmichEnglish

One of the expert witnesses in these cases is Dr. Richard Flemming – he has published a large amount of information on his website:

https://www.flemingmethod.com/

In the US, the FDA is being sued for violating Federal law in regards to issuing Emergency Use Authorizations for the pseudo-vaccines as well as the licensing of the Pfizer's Comirnaty pseudo-vaccine.

For Further Research

Here are a few names to help you get started with your research, in no particular order:

- Peter McCullough – doctor treating COVID-19
- Vladimir Zelenko – doctor treating COVID-19
- Robert Malone – father of mRNA technology
- Geert Vanden Bossche - virologist
- Thomas Renz – lawsuits
- Steve Kirsch –vaccine data analysis, skirsch.io
- Judy Mikovits – microbiological researcher
- Mike Yeadon – pharmacologist, past Pfizer chief scientist and VP
- David Martin – coronavirus patents
- Reiner Fuellmich – lawsuits

You should appreciate that all of these people are being actively disparaged for their views. But you will find that those who disparage them are completely unwilling to engage in an open public debate on the science. Steve Kirsch has even put up one million dollars for anyone who is willing to debate the issues but no one will accept his offer.

Summary

I have covered many significant factors that have served to make this pandemic far worse than it needed to be. These factors have already been discussed in detail. Allow me to summarize them for you.

- Blocking the use of preventative or early treatments. This includes the propaganda and fraud claiming that the use of inexpensive preventative or early treatment drugs were either ineffective or harmful. This includes

harassing doctors or revoking their medical licenses for treating COVID-19 patients or disseminating treatment information.

- The NIH recommended use of the highly toxic remdesivir treatment in hospitals that resulted in high hospital mortality rates.
- Denying the importance of the immune system in preventing severe disease. This includes completely ignoring lifestyle changes (nutrition, sleep, exercise, etc.) that can improve the immune system.
- Manipulation and subsequent inflation of case numbers and death numbers – making the pandemic appear far worse than it actually was. The use of ineffective PCR tests that could not distinguish between SARS-CoV-2 and influenza or even determine infectiousness followed by setting PCR parameters to generate very high false positive rates that resulted in highly inflated "confirmed" COVID-19 case numbers. Then, allowing non-specific symptoms to qualify for suspected cases – shown to generate highly inflated "suspected" COVID-19 case numbers. Then allowing guilt by association – the inferred cases – shown to generate highly inflated "inferred" COVID-19 case numbers. Because any COVID-19 case associated with a death becomes a COVID-19 death, inflating the case numbers also inflates the death numbers.
- Incentivizing the inflation of case and death numbers by paying hospitals, clinics and care facilities a substantial premium for COVID-19 cases and deaths.
- Changing death certificate reporting guidelines to maximize the number of COVID-19 deaths.
- The use of non-pharmacological measures that have never been shown to be effective – such as lockdowns, excessive sanitary measures and general use of masks. This includes the continued use of these measures long after they were shown to be ineffective.
- Issuing EUAs without any true justification – such as high death rate or lack of other treatments. Only fraudulent justifications were used – see the prior points about inflated death counts, suppressing inexpensive preventative and early treatment drug and supplement protocols, and ignoring the importance of the immune system.
- Giving complete immunity to everyone providing COVID-19 biologics, tests, equipment or related services through EUAs and the PREP Act. This removed any incentive to make sure the COVID-19 related item or service was safe and effective – or that testing was accurate. These EUAs were used to cause widespread public harm.
- Attempting to vaccinate the entire population with experimental biologics while ignoring all of the danger signals – such as high death rates from the pseudo-vaccines. This includes dismissing the fact that people who have already had COVID-19 don't need – and generally should not take – the pseudo-vaccine. This includes ignoring the Nuremburg Code and other more recent international treaties and clinical trial laws regarding experimentation – by failing to get true voluntary informed consent – by failing to inform people with truthful information – by using coercion and

prohibited inducements – by failing to inform people of their right to refuse participation – prior to administering experimental biologics.

- The unprecedented use of government and industry propaganda, disinformation and fear mongering, including suspending well-established medical science in favor of pseudoscience and outright fraud. That includes the single narrative media coverage from the conglomerated news media outlets. That includes the censoring of dissenting content by the large social media, video and search sites. That includes the demonization of dissenting perspectives that were backed by real science.
- There is the appearance that all of this was done as part of a strategy to maximize fear, suffering, hospitalization and death in order to encourage the population to accept an experimental gene therapy drug on a massive scale. This is nothing less than crimes against humanity.
- The medical-industrial complex is going to make a huge amount of money from this pandemic. Remember, just like war is more profitable than peace if you are part of the military-industrial complex, sickness is more profitable than health if you are part of the medical-industrial complex. All you need is greed, ambition and a broken moral compass – all of which are in full supply.

I did not come to these conclusions easily. When the pandemic started, I had no reason to question what I was being told. I was not antivaccine as I have received a lot of vaccinations over the years. But when I started hearing things that did not match up with my medical and science training, I figured I should do a bit of research to figure out what the problem was.

It took a few thousand hours of research – reviewing the many different arguments from all sides of the controversy. It took reading thousands of articles and peer reviewed published science and medical papers and the various government web sites. It took listening to hundreds of hours of interviews with experts. It took hundreds of hours of analysis. I wrote down and organized what I uncovered and this paper is the result.

Truth does not mind being questioned – but a lie does not like being challenged.

Don't believe it because I said it – do your own investigation and prove it to yourself.

Postscript

The original version of this paper was written in early May 2020 in response to US Fish and Wildlife Services and USGS – along with other organizations – worrying about giving North American bats COVID-19. Why? The cavers, bat researchers and perhaps the general public were somehow going to give the North American bat population COVID-19. Then, somehow, those same bats were going to spread COVID-19 to people – or other wildlife. Or perhaps COVID-19 was going to become the new WNS bat infection that would kill bats. There is no data to even suggest

these scenarios are possible but that does not stop bureaucrats from speculating up a doomsday scenario. And the calculated probabilities of these scenarios happening were amazingly high in their report – bordering on a sure thing in several cases. The human-to-human transmission vector is many orders of magnitude more efficient than any possible bat-to-human vector. The same holds true for vectors involving other wildlife. Not to mention one or more zoonotic changes to the virus are probably required before any such transmission could take place.

This is the same lousy science displayed with White Nose Syndrome (WNS) – a Eurasian bat fungal disease that has killed a lot of North American bats. Cavers and even researchers were being excluded from caves because they would somehow infect bats with WNS. The bat-to-bat transmission vector is many orders of magnitude more efficient than any possible human-to-bat vector. The only documented human-to-bat transmissions of WNS involve a white lab coat, a swab and a spore loading of 100,000 to 300,000 spores – i.e., a scientist intentionally infecting a bat in the lab. That large spore loading is phenomenally high – but you cannot give a bat the disease without it. Bats are very social animals and roost together as well as groom each other so bat-to-bat contact can easily achieve the spore loading needed to pass on the infection to other bats. Humans rarely interact with bats in the wild – humans walk on the ground while bats fly and hang from the ceiling – so it is nearly impossible for a human to accidentally give a bat WNS – even if the human was somehow covered in spores. There is a huge difference between what is theoretically possible and what is statistically probable. A CDC paper documenting a large number of international bat translocations years before the American WNS infection started along with the fact that the first identified infection was only 35 miles from a deep-water port was dismissed out of hand. Nope, the infection was brought to the US via the mud on someone's boot who had been caving in Europe. Really.

Following the initial paper oriented to the bat issues, the paper was rewritten and expanded as a general paper for a broad audience and has been expanded and updated many times since. If you find any factual mistakes, please let me know – I strive for accuracy. I hope you find this paper educational.