### **COVID: Some Ignored Facts, Some Unasked Questions**

By *Dmitry Elman, Engineer* (not an M.D., epidemiologist or medical statistician)

Since early 2020, the world has been bombarded by news of a new virus. This virus is so new, it was called a "novel" virus. No one in the world was supposed to have any immunity against it. Everyone could be infected, and a large percentage of the infected were expected to die.

Let us investigate this hypothesis.

#### The Diamond Princess

On March 5<sup>th</sup>, 2020, Antoine Flahault, the director of Global Health Institute in Geneva, published a long article posted on www.state.fr (Reference 1). This post included statistics from the well-known cruise ship *Diamond Princess* which had been quarantined in Yokohama for a few weeks, and a number of questions related to these statistics.

The information from Yokohama cruise ship, the *Diamond Princess*:

- Total crew and passengers: 4,061
- Total number of infected (everyone on ship was tested multiple times): 705 (17.36%)
- Total number of asymptomatic infections: 322 (7.93%)
- Total number of symptomatic infections: 383 (9.43%)
- Total number of dead: 6 (representing 0.148% of total population on the ship and 0.78% of infected. This number is known as IFR: the infection fatality rate)
- I could not find the average age on the ship in this post

This basic data raises some important observations:

- Although the virus was officially deemed very infectious, with everyone vulnerable to its effects, only approximately 17% were infected. This occurred even though: there was a common ventilation system; passengers and crew kept interacting (though on a more limited base); and the quarantine was imposed when a number of people on board were already symptomatic, indicating that the virus was already wide-spread.
- Asymptomatic people accounted for 45.7% of all infected people {322/705\*100%], meaning that for every 11 people ill with symptoms, there were 9 people ill without symptoms. This difference is certainly not larger by 30 to 50 times as we were told as a justification for the lockdown, masking, and distancing. Such a measurement would mean that for every 11 symptomatic patients, there would have to be 270 450 asymptomatic people.
- The number of asymptomatic infections might mean that more than 45% of all infected had some prior immunity against the virus already, otherwise, they would be symptomatic as well. This bit of information directly contradicts the statement that the virus is "novel"

and nobody is immune to it. Dr K. Chumakov (ref 23) proposed a hypothesis in a Russian-language interview on echo.msk.ru that, as people can be infected by 24 other types of coronaviruses, those who had experienced an infection by one of these, is likely to have cross-immunity to COVID-19. The same statement means that the number of additional people who need to be infected in order to develop "herd immunity" is much lower and in the range of 20 - 30%. (Herd immunity is the condition in a population that occurs when enough individuals develop immunity, either through natural or artificial means, and the growth in number of cases either starts to decline or stops altogether).

• The infection fatality rate (IFR) of 0.78% on the *Diamond Princess* was much higher than regular influenza, which is about 0.1%. This suggests that the main focus should have been centered on the age of patients requiring hospitalization or who died on this ship. Various diseases and viruses have differing effects on different age and health demographics, and it has become very clear that COVID hits the elderly much more strongly.

Was the observed IFR ever applicable for the general population? The post did not have any data on this subject, but some other source (I think it was in online presentation done by Michael Levitt of Stanford University) did mention that the passengers were mostly elderly and even the crew had no people under age 24, making the average age on the ship slightly over 55 years old. If this is so, the IFR should be will be around 0.26-0.28% (If one excluded recalculates IFR by adding younger low risk population to the ship population). This would still make COVID more dangerous than the regular flu, but 10 times less dangerous than the famous Spanish flu pandemic and 6 times less dangerous than the numbers used to justify the lockdowns.

The guestions asked by Antoine Flahault in his post on March 5<sup>th</sup> of 2020:

- China should have 280,000,000 infected if the *Diamond Princess* data can be used as a model. If this is so, where are they if the virus is as infectious as they claim?
- Why is China making statements without publishing any seroprevalence data (checking blood samples for antibodies and T-cells unique to this virus)?
- Why is China using mathematical models for prediction when it is known that the models have enormous margins of error?
- And why is the WHO recommending China's practices when those recommendations contradict established medical practices?

#### Good questions.

Interestingly, Antoine Flahault never again asked those questions and became a staunch supporter of lockdowns, masks and "Zero-COVID" approach aiming to achieve a complete extermination of the virus.

## Seroprevalence studies by J. Ioannidis, M.D., PhD. (Statistics), Stanford U: The Real Risk of the Virus.

Dr J. loannidis of Stanford University is considered to be one of the top scientists and best medical statisticians in the world. He decided to follow up on Dr Flahault's observations, and performed several seroprevalence studies, using blood-based analysis to determine the extent of actual community COVID spread. This kind of methodology should present more accurate counts because the evidence of reaction of the immune system to specific disease is not dependent on patient symptoms.

In April 2020, Dr Ioannidis published a study conducted in several counties in California which demonstrated a COVID IFR of 0.27%. This study led to attacks, driving him from public life and forcing him to explain that he was "not a Trump supporter", that "he is a scientist and not a politician", and that "he is not interested in US politics being a Cypriot." This reaction suggests to me that risk of the virus - or the absence thereof - was very quickly a political issue, at least in the United States.

Dr Ioannidis' second study was published by the WHO in September 2020 and calculated an IFR 0.22%.

His last known-to-me seroprevalence study (Reference 2) was published in March 2021 and states a global case count of 1.5 - 2.0 billion infections and an infection fatality rate of approximately 0.15% as of February 2021. This number of cases accounts for 20-25% of world population and is counted prior to a significant wave in India. (It is also key to note that the COVID death numbers used by Dr Ioannidis came from official sources, and it is reasonable to believe that those numbers are inflated, at least in some Western countries, as will be shown later. The level of inflation is unclear, but may be in excess of 25%.) How far then were we from the herd immunity even without accounting for vaccination?

For comparison to the numbers reported by Ioannidis, the IFR of a bad influenza season in 2017-1018 was 0.135% (CDC data), while an average flu season IFR falls around 0.1%. This means that COVID has a fatality rate approximately 10% higher than commonly circulating influenza during a bad flu season, and 50% higher than the average flu season.

Considering that IFR does not depend on containment measures (that is, lockdowns do not affect how many people will die, only how many people are infected), it is an ultimate indicator that, while COVID remains a serious disease, it is not particularly dangerous. If we additionally consider that the IFR varies greatly between age groups (being almost zero for people under age 40 and going as high as 3% for the elderly), the utility/effectiveness of containment measures implemented by the governments are even less clear.

Widespread vaccination now makes seroprevalence studies like those by Dr Ioannidis almost impossible since most people in vaccine-rich countries now have antibodies to the virus due to vaccines. Furthermore, establishing the risk posed by the disease itself using standard methods

is unachievable. Maybe this is the reason why officials are doing their best to try to vaccinate everybody: erase the reference control group?

# Data from Statistics Canada: How Many People Really Died from COVID or COVID Complications?

In November 2020, Statistics Canada reported that 90% of people who died with COVID in Canada had at least one serious comorbidity, and 76% had at least three. These were listed on their death certificates (Reference 7).

This information leaves me wondering how many of those people died of COVID as *the primary* reason for their death or even as the main additional reason of death? I am especially wondering about 33% who are listed as having had pneumonia, which was apparently different from COVID even though COVID was originally being called "atypical pneumonia"? Is it possible that renal failure (life expectancy of 3-4 days), liver failure (life expectancy of mere days), heart attack or stroke (life expectancy only hours in some cases) and last stages of Alzheimer (life expectancy measured in months) can be considered less critical than COVID?

I do not even want to contemplate the use of ventilators, because if I question it, we may start moving into an area worthy of criminal investigation. When the person has lungs full of phlegm, standard protocols do not call for artificial ventilation as it does exactly nothing to improve the person's condition. Given this, why was this method widely used, contributing to the death of 85 - 95% of ventilated patients depending on location?

### Recent Scandal in Alberta and the UK's Criterion: Can We Believe the Official Numbers at All?

In October 2021, the Canadian province of Alberta reported the COVID death of a young boy. He was officially announced as a COVID death due to the fact that the boy had a positive PCR test 24 hours prior to his death. The actual cause of death in this case, however, was late-stage brain cancer. Because the boy's sister thought that recording his dying as being due to COVID was a shame, the family called out the report. The government officials apologized.

How many cases have there been of incorrectly attributed COVID deaths where the officials were not caught red-handed because they did not announce the death on TV, allowing the relatives and friends to compare what they know about the deceased condition and the official statement? To the best of my knowledge and based on the indirect evidence, in Canada every death with a recent positive PCR test has been considered a COVID death.

This is also happening in other countries.

I have read about at least two places in the UK and the US where reviews of their own reports have concluded that a minimum 25% of all recorded COVID deaths had zero symptoms of COVID and were based solely on a positive PCR test. (By the way, death from COVID in the UK is

considered *any* death from *any* reason within 28 days of a positive PCR test. Reference 9. What about those who were run over by the bus? You know the answer.)

If this data is more generally applicable, downgrading the 0.15% IFR published by Dr Ioannidis by 25% gives a new IFR of 0.112, which is *less* than IFR of influenza during 2017-2018 flu season.

### How Do We Know that Someone has COVID? The "Gold Standard": the PCR Test

By this point in time, we have all heard about – or experienced – a PCR test. A PCR test is conducted by:

- A sample of mucus is taken from the test subject nose or throat using a long swab
- In a laboratory process, all genetic sequences from the sample are doubled in what is called "an amplification cycle"
- The cycles are then repeated many times until the amount of genetic material reaches a certain threshold so the genetic material in question can be detected if present

As the PCR test is often considered to not produce false negatives, this has made it a favorite with doctors. My interest in the details of the PCR test came about after reading a paper in *The New England Journal of Medicine* (Reference 3). The paper generally stated that the test method can detect such low levels of viral genetic material that the results of the test may *not* be associated with an active infection. In fact, this article states that this happens in 53% of cases creating a false positive rate of 53%. A disaster for any valid test method! *The Journal of Infection* published data stating that false positives can make up 75% cases (Reference 4), and a number of other pre-prints offered even higher estimates (85%, 93%). I am unaware as to whether any of these pre-print articles reached officially published status (not that it proves anything these days).

Beyond this, PCR testing has 3 very serious drawbacks that need to be taken into account:

- 1. Sample location
- 2. Sensitivity
- 3. Subject

#### Sample Location:

As the swab sample is taken from the patient's nasal passages or throat, it is done in the part of the body which can be considered external. The virus can enter the nose or the mouth without ever advancing to the places where it can do damage. Further, it may simply be eradicated by the body's primary immune defenses in the mucus membranes without eliciting a deeper immune reaction. Nonetheless, the virus can be detected by the PCR test even if the person was never infected by the process of the virus entering the cells and actually undergoing replication.

#### Sensitivity:

The sample collection may be fairly straightforward, but the issues surrounding amplification numbers are rather more complex.

A number of sources state that symptomatic infection is associated with 10-15 amplification cycles, which is amplification of genetic material 1,000 - 32,000 times. Live virus can almost never be grown from a sample if it requires more than 27 amplification cycles to identify the viral genetic material (this is 125,000,000 times amplification). As such, let's call 27+1 the maximal proper amplification number, where one extra cycle is added in case the process goes wrong.

All the countries I know about use 38-45 amplification cycles.

If we compare 28 cycles to the 38-45 cycles the authorities use, the sensitivity is 1,000-125,000 times higher than is required to detect live infections. The worst offender known to me is the province of Ontario in Canada where 45 cycles is routinely used for diagnosis. The excessive sensitivity definitely increases the case count and helps to keep the pressure on the scared population. I cannot find any other reason for using such high sensitivity measures.

The *NEJM* paper (Reference 3) states that, by routinely using such a high number of amplification cycles, the testing authorities detect dead viruses and mere fragments of viruses. Even if the detected viruses are alive, their quantity cannot be associated with active infection. Misinterpretation of PCR test results is so common, that even the WHO issued a statement on the subject highlighting the need for clear agreement between test results and clinical presentation (Reference 5). This statement occurred just minutes after the swearing-in of President Biden. Interesting coincidence, don't you think?

At the same time, the *real* number of infections based on seroprevalence studies is almost an order of magnitude higher than PCR based infection rate, which makes PCR testing a completely useless tool as a basis for defining policies.

#### Subject:

I would like to point out that detecting fragments of viral genetic material does not even necessarily prove the current presence of the virus at all. An example to make this clearer:

I have a cat. As cat hair notoriously will get everywhere, I can be positive that some of his fur is on my clothes. If you test my clothes, you'll find a cat. But even if I am removed from the cat – let us say I travel or the cat disappears - his fur will still be found on my clothes for some time afterwards as it is very fine fur (though not nearly so fine as 0.1 micrometer virus!). The more time that passes with me out of contact with my cat, the less chance his fur will be found on my clothes, but this chance may never go to complete zero. The same Michael Mica who authored the *NEJM* article, states in one of his other works that a person can be PCR positive up to 90 days from an official infection. I am aware of a known COVID case, where a person with immunodeficiency was PCR-positive for half a year after having an active COVID infection.

The inventor of the PCR test, Kary Mullis, was asked if his test can be used for the type of diagnostics it is being used for with COVID. He said, "Categorically not. The test just takes something small and makes it very big".

#### A Convenient Test:

Have you heard of the test which can produce different results based on a need? If the purpose is to detect only symptomatic infections or late pre-symptomatic infections, there is no need for the use of more than 15 amplification cycles. If the purpose is to prove that a certain population has more infections than other groups, the number of cycles in PCR tests can simply be dialed up for this population. So long as prevalence of the virus is not zero, you will get an increase in "official infections" by perhaps 2 to 4 times.

## Efficacy of Lockdowns: Who is Having Cognitive Dissonance at the BBC?

In August 2020, the *BBC* published a "brilliant" report, the purpose of which was to disgrace Sweden for not implementing lockdowns (Reference 6). The title of the article was, "Coronavirus: Exposure rate 'similar' in London and Stockholm". Read that carefully. Despite total lockdown in London and just minimal restrictions in Stockholm, the exposure rates (based on the same form of seroprevalence testing) were "similar".

In fact, they were the same.

Does it mean that lockdowns achieved nothing? I think the answer is a definitive yes.

It is also of note that the detailed exposure rates were almost identical to that of the *Diamond Princess*.

If the virus could infect everyone, why - when lockdowns were removed or at least significantly scaled back after the first wave - did infections not skyrocket again? The number of infected people was still very low for any expectation of "herd immunity", but the summer of 2020, in all the countries that had experienced a significant first wave, was very quiet with a low number of new infections and deaths. Does it mean that the virus infected enough people by the end of the first wave and 17% (+ 45.7% with potential previous immunity as suggested by the *Diamond Princess* data) was the magic number for herd immunity against the original strain? Does it mean that the second wave was generated by a new strain of the virus and that the new strain was much more contagious? Or, alternatively, fewer people had previous immunity? Is it possible that each country with the second wave experienced its own strain?

The *BBC* article further revealed that, "In the UK, more than 46,500 people have died in a country of more than 66 million. In Sweden, there have been more than 5,500 deaths in a country of 10,2

million". Given this data, the calculation of a comparable death rate per million is 704.5 in the UK and 540 in Sweden. This means that 30.4% more people died in the UK.

It seems to be that the conclusion reached by the article's authors is: Thank God, we are not in Sweden!

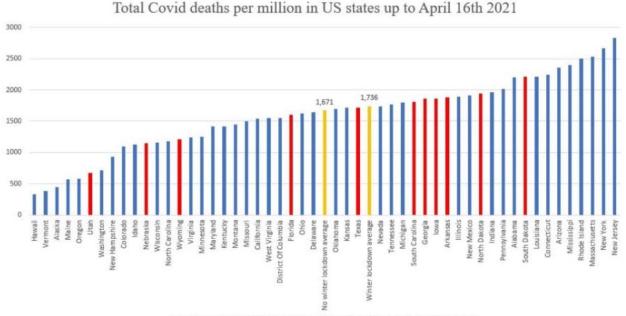
Really?

#### More on Lockdowns

Questioning the evidence of the effectiveness of lockdowns has so many possible journal and media sources, including:

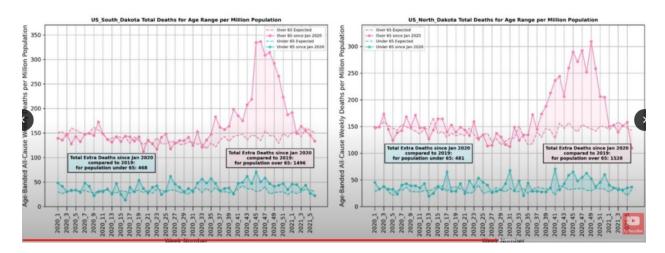
- (Reuters): Sweden, which has shunned the strict lockdowns that have choked much of the global economy, emerged from 2020 with a smaller increase in its overall mortality rate than most European countries, an analysis of official data sources showed (Reference 10). So, less mortality without lockdowns, Interesting!
- No effect of lockdowns on the number of transmissions was detected in Denmark (Reference 11).
- Our friend, Dr J. Ioannidis, states that "After subtracting the epidemic and IrNPI [less restrictive non-pharmaceutical interventions] effects, we find no clear, significant beneficial effect of mrNPIs [more restrictive] on case growth in any country" (Reference 12). Non-pharmaceutical interventions (or NPIs) include such things as lockdowns, masks, and social distancing.
- In September 2020, The Daily Mail projected that the number of people who will die from delayed medical procedures will be comparable with the number of COVID deaths. Since the article was published, the number of cancelled and delayed medical procedures has become astronomical, and the final death toll from that is expected to be much higher (Reference 13).
- The *BBC* once again came up with a compelling headline: "Covid-19 disruptions killed 228,000 children in South Asia, says UN report". They did have the grace to connect the disruption of lockdowns on medical care, nutrition, etc., and not only the effect of the virus itself with the results (Reference 14).
- Authors at the University of Chicago found "shelter-in-place" policies to have no effect on COVID spread, but enormous damage to economy, people's psychological state, and normal human interactions (Reference 15).
- "Stay-at-home policy is a case of exception fallacy: an internet-based ecological study" speaks about the US situation specifically where the lockdowns were relatively limited (Reference 16).
- A professor at Simon Fraser University evaluated a cost-benefit ratio measured in lifeyears, comparing the difference if no lockdown had been implemented In Canada to actual lockdowns, arriving at 282 times greater cost in the worst case. This is probably an overestimate, notes the author, but even the minimal advantage of no lockdowns is 3.6 times, which is still very significant (Reference 17).

Next is some graphic information demonstrating no advantage in COVID mortality in US states regardless of whether winter lockdowns were implemented. In fact, the locked-down states had higher COVID mortality on average. This graph was published by one of authors of the website dailyskeptics.org, but I personally checked the numbers using Worldometer and they correspond.



US states: No winter lockdown in red; Winter lockdown in blue

The next graph demonstrates almost identical excess mortality between locked and not-locked down states of South and North Dakota, which have almost identical demographics and conditions. These graphs were shown in a TV interview by Nobel prize winner, Michael Levitt.



My conclusion on lockdowns reflects the name of Reference 16: lockdowns were "an exception fallacy" ... and now we live in the fallacy cover-up. Or at least this is how it looks to me.

#### Masks

Masks are supposed to reduce the transmissions of the virus. In theory.... but is this theory based on real science?

In my opinion, and according to the rules of engineering fluid dynamics, masks cannot be working in principle. Before considering the mechanics of the mask itself, it is useful to explain what happens to our breath.

When a person exhales, the droplets containing the virus can vary in size by several orders of magnitude. The larger droplets will fall almost immediately due to the gravity. Smaller droplets will stay in the air and dry out forming aerosols.

With a mask is added to the scenario, the larger droplets can be stopped. However, those drops were never a danger to anyone. The problem with relying on masks is simply that masks will not stop the majority of small droplets.

- On Inhalation: Given the very small size, and the known aerosol character, of the COVID virus in question, none of masks usually used (including N95 masks) has a filtration capability to stop the virus (0.1-0.15 micrometers). The smallest particles N95 mask can filter have size of 0.3 micrometer.
- On Inhalation and Exhalation: Fluid flows follow the path of least resistance, and both liquids and gases are considered "fluids" in the field of physics: the precise science. If the mask presents a significant resistance to flow, the air containing the virus will instead move around the mask. After only a few minutes' use, the openings in the mask's material are sealed by the moisture expelled by breathing, significantly increasing airflow around the mask. In the CDC's mask tests, manikins were used in place of people, and moisture was never included in the equation. By further gluing the masks to the manikins' faces, the results achieved were convenient, but absolutely not representative.
- On Exhalation: Air pressure from the lungs opens additional gaps between the skin and the mask allowing, by my estimates, for about 90% of airflow to not go through the mask. (Experiments from Reference 20 confirm my estimate rather nicely.)

Anyone who wears glasses with a mask knows, it takes only a few breaths to be looking through fog, unless the upper edge of the mask is taped to the skin. Clearly a significant amount of every exhalation (and the moisture it contains) is moving around the mask.

Does this correspond to the real-world data?

A Danish study following 3000 mask-wearing people and 3000 as a non-mask wearing control group demonstrated mask effectiveness of 0.226% (Reference 18). That is, it was found that wearing a mask increased a person's chance of avoiding COVID by only 0.226% versus choosing to not wear a mask. The actual difference between mask and non-mask COVID infections was 11 cases, which is a statistically insignificant result given the sample size. Even so, it would be unreasonable to expect to find an effect even this small in the real-world as the people in the

study were wearing surgical masks, changing them regularly, and had received general training on how to handle masks properly. Cloth masks will have much less impact, and given the way they are worn, they are less than useless.

Other studies show the outcomes of masking tracking in the opposite direction. Scientists studying infected people tried to understand which factors affected the transmission of the virus, and their conclusion was simple: "Self-reported mask use surprisingly did not affect the risk of transmission. Similarly, Ng and colleagues did not find an effect of self-reported mask use on risk of COVID-19 transmission in their analysis of contact tracing data from Singapore" (Reference 19).

There is one additional factor which renders masks useless even if the officially published numbers on mask efficacy (usually that masks reduce risk by 70-80%) are correct: the numbers game.

Recall from the discussion on PCR testing that many additional amplification cycles are needed to detect the COVID virus if the person is not really infected. A symptomatic person's sample may require 10 to 15 cycles for a clear diagnosis, while the sample for a person without an active infection may require as many as 45 cycles. The difference between 45 and 15 cycles is 1,000,000,000 times amplification. This means that an actively infected person produces one billion times more virus. Even if a mask can block 90% of the virus on both inhalation and exhalation (which they clearly don't), the viral load of an infected person's breath through the mask will be 50 million instead of 5 billion pathogens: significantly more than is needed for viral spread.

Maybe this explains the results of real-world data.

#### **COVID Vaccines**

These is a great deal said in public and media discussions regarding the efficacy of vaccines, but there is a massive difference between relative efficacy and absolute efficacy, and this must be understood.

Let us imagine that there is a drug that reduces the risk of someone contracting some particular disease. If that person normally has a 1% chance of becoming ill, and an available preventative drug reduces that chance to 0.1%, then that drug's *relative* efficacy will be 90% [or (1.0–0.1)/1.0]. Relative efficacy cares only about the reduction of becoming ill assuming as a starting point that the person *will* become ill. The *absolute* efficacy of the same drug, however, is only going to be 0.9% [or (1–0.1)x0.01]. Absolute efficacy starts with an acknowledgement of how likely it is that someone will become sick, and then proceeds to calculate a measure by how much less likely they will be to get ill due to an intervention.

I would prefer not to discuss the relative efficacy of the COVID vaccines that are available at this time, due to inconsistencies in known data and the difficulty of finding trustworthy information on the subject. Nonetheless, the *relative* efficacy of COVID vaccines reported in clinical trials was 77-95%. These are the numbers touted by governments and pharmaceutical companies to encourage uptake. Calculating the *absolute* efficacy of the Pfizer and Moderna vaccines places their efficacy at about 1% (Reference 21). This conclusion speaks more to how low the risk of the actual disease is than the efficacy of the vaccines.

I would like to reiterate that any conclusions regarding case counts drawn from diagnostics based on PCR tests are dubious. To a certain extent, however, that no longer matters since official discussions regarding vaccine efficacy no longer apply to the *prevention* of the disease, but rather the prevention of *serious* disease. Perhaps this is why the CDC changed the definition of the very word "vaccine".

Any discussion on the safety of vaccines is an even more complicated subject due to significant efforts to suppress any report contradicting the official public health narratives.

It is enough to say that the VAERS (Vaccine Adverse Effect Report System) in the USA has officially reported 18,461 deaths due directly to the vaccine, while their own review of the system reports between 8 - 13% of all adverse effects, which means the actual number of deaths due to vaccination may be 7.5 - 12.5 times higher than the published numbers: 138,000-238,000 deaths (Reference 22). Elsewhere, 1,766 vaccine fatalities have been officially reported in the UK; 633 deaths have been officially reported in Australia; and 29,183 deaths have been officially reported in the EU (all numbers to the end of October 2021).

While some may wish to contend that all vaccines and drugs may pose some risk to some people, it is telling that compiling reports of *all* adverse events (including death) for *all* other vaccines administered in the past 50 years, under these same reporting systems, have been far surpassed by less than a single year of COVID shots. As such, I have very serious doubts that the COVID vaccines can be called "safe" by any standard.

#### Conclusion

At no point in time, was the SARS-CoV-2 virus as dangerous and virulent as the official narrative presented. Furthermore, it never required the extreme measures put into place by governments around the world, which have proven to be absolutely ineffective, but have also caused disproportional damage to entire societies.

Was the lesson learnt by the authorities? Not a chance! As I write this, they are re-introducing lockdowns, masking, and social distancing. They divide society into the "vaccinated" and the "unvaccinated" without good cause and to the detriment of all. In short, they play politics because – as it appears to me – this is the only thing they know how to do.

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