Introduction – what this document is and what it is not (rev. 9/28/2023)

As this document has evolved over the past three years numerous changes have been made to it, admittedly, primarily related to COVID. However, as that global drama, which is what it really is, continues to unfold, it continues to become clear that the use of infectious diseases (including monkeypox, "mysterious hepatitis", tropical disease and so-called climate-related diseases, and surely the many more over the upcoming years) are part of a politically driven and unfounded application of both science and medicine headed towards the widest applied criminal abuse of humanity ever seen – even greater than those seen under the National Socialist Party (Nazi Party) of Germany in WWII. While scientists, and many people of faith, cry foul at the first mention of politics, it is only the blind who can look at the events currently taking place and not realize that in order to address the truth, one cannot shelve any one aspect of the human reality. Clarity, candor and bluntness are absolutely and inexcusably necessary, and as such, politics, faith, science, medicine, etc. ALL need to be integrated into the analysis of the situation, because humanity cannot function in a fragmented manner – which is exactly what the efforts seek to achieve – a fragmented, broken humanity that can easily be controlled. It is difficult to control the autonomous and fully integrated human person however – that is the truly free person, living optimally as a human being, as God intended him/her to be. The scientific literature itself, and even the documents pertaining to human rights, including the ***Nuremberg Code***, ***Helsinki Declaration*** and the ***Belmont Report***, reflect this reality. Thus, there is NO room for political correctness and compartmentalization of reality, of the truth. That is the work of cowards and those who seek to deceive.

Thus, this document has evolved from COVID to cover pandemic-related material, but appears to be continuing to evolve into an exposé of the reality of the lies and crimes being committed against humanity at a level never seen before, using the very means that are supposed to be healing and supportive of life (e.g., science and medicine) to destroy and kill humanity as created by God, with the idea of creating a dystopic, transhumanistic, enslaved humanity.

The goal of the document remains to challenge the narrative and also to challenge the reader to think and seek out the information – the truth – themselves. The reader, in fact, is **strongly** encouraged to **not** simply rely on this document, most especially given the magnitude of the reality that is unfolding. It is necessary to remember that in knowledge is power, and the less likely you are to be manipulated. Ignorance is not bliss.

This is not a conspiracy theory document but a document that seeks to lay out the ***reality as it evolves*** and sadly, ***as it is manipulated***, ***as people speak***, as evil becomes exposed. The reader is ***always*** asked to question, to think for themselves and critically, and ultimately to ensure that ***THEY ARE FREE to make up their own mind***. The truth speaks for itself.

This document is sadly necessary because of the immense and intensified efforts that have been made towards ***population control*** under the guise of science. This is not an empty unfounded statement, since the evidence has pointed in this direction for at least 70 years (see: https://rumble.com/v132jb6-the-neurobiopsychosocial-basis-of-crowd-behavior.html for a broad summary). This reality has not only been admitted in writing (as part of the goal of this document is to show; or see https://time.com/collection/great-reset/), but has also been spoken by certain people in power themselves, such as Marion Koopmans (scientist with the WHO), who speaks of a World Health Organization (WHO) 10 year plan of infectious disease and Bill Gates (Bill and Melinda Gates Foundation), who also is a significant funder of the WHO and appears to also exert a significant influence on the World Economic Forum (WEF). Thus, the goal of this document is to provide as much information as is humanly possible, pertaining to the various aspects of these global diseases that, at this point, have every marking of being intentionally planned (e.g., Rockefeller Foundation and Global Business Network, 2010; Event 201 - https://www.centerforhealthsecurity.org/event201/about;Yassif et al., 2021).

Compiled by: Stephen Sammut BPharm, PhD.
CV available at: https://sammutlab.files.wordpress.com/2023/07/stephen-sammut-cv_071323.pdf

About the Person Compiling the Document

Dr. Stephen Sammut received a B.Pharm from Monash University in Victoria, Australia and a Ph.D. in neuroscience from the University of Malta in Malta, Europe. His research interests lie in the utilization of behavioral models and combined experimental techniques to investigate the interaction between the endocrine, immune and nervous systems and their role in CNS development, functioning and psychopathology. His scientific career experience has been broad and has included experience in a number of animal models of psychiatric disorders including depression, schizophrenia, Parkinson's disease and psychostimulant-induced drug sensitization. Moreover, he has utilized various in vivo and in vitro techniques in order to investigate questions related to behavior, cellular activity, neurotransmitter release, and how these are altered in psychiatric diseases in brain regions of interest. He has authored and co-authored several papers in leading scientific journals related to the research he has conducted, including his groundbreaking study describing an animal model which addresses the behavioral and physiological impact of drug-induced abortion. He has also presented his work at various conferences and institutions nationally and internationally. His scientific career has also given him the unique experience of having a leading role in the original setting up and management of laboratories. Dr. Sammut is currently a Full Professor of Psychology at Franciscan University of Steubenville, OH, where he teaches and is also actively involved in research. His research efforts currently are focused on three primary areas: 1) research geared at investigating the neurological, biological and behavioral consequences of drug-induced abortion in an animal model, 2) research addressing the abortion-pill-reversal at the pre-clinical level, and 3) research addressing the development of an animal model for embryo transfer in ectopic pregnancy. Additionally, and in line with his research interest in psychopathology, Dr. Sammut also conducts research addressing mental health and related behaviors in the university student population.

Statement Regarding Inclusion of Retracted Articles

PLEASE NOTE: In the literature cited in this document, which primarily focuses on SARS-CoV-2, COVID-19, and COVID "vaccines", there are situations where a paper may have been withdrawn/retracted after I cited it. Every effort is made to ensure that the information provided is up-to-date. HOWEVER, please note, that extreme caution is necessary in the credibility and genuineness attributed to any retraction (i.e. just because it is listed on Retraction Watch does not mean it is a legitimate retraction). The primary reasons for this are:

- The current climate of political correctness and censorship of scientists who challenge the narrative promoted by the mainstream media, various political agendas, and people with minimal or questionable scientific knowledge relative to pathophysiology (e.g. Bill Gates), but with significant financial or other interest,
- The clear irrationality and lack of logic in the narrative and the resultant reactive measures,
- The ignoring/dismissing of previous and established knowledge relating to viruses, treatment, spread, and efficacy/inefficacy of the measures taken,
- The ignoring/dismissing of the clear negative consequences on humanity and the inhumanity to which many have been subjected as a result of the irrationality of all measures taken with, in the case of COVID-19, minimal/limited impact on the spread of the virus, and
- The substantial historic documentation that exists (some covered in this document) indicating significant likelihood of intentionality and culpability of various organizations in the numerous harms/crimes committed against humanity over the years, but most especially since the outbreak of COVID-19.

As such, I have chosen to indicate where retractions have been posted, when I become aware of them, but I have NOT and will NOT remove the reference if it is compliant with common sense, logic, and the scientific knowledge we have applied up until the COVID-19 drama unfolded. It is necessary to point out, at this point, that the COVID-19 drama appears to be the culmination of years of preparation by numerous players, and potentially only the beginning of other plans associated with potentially coercing the general population into submission, through fear and panic induced by disease or other events. Interestingly, to the best of my knowledge, no COVID-19 and vaccine-narrative-favorable literature has been retracted despite ethical and questionable interpretations, or errors in conclusions.

Table of Contents

Section 1: Coronavirus Disease (COVID-19) & SARS-CoV-2

COVID-19 - A Synopsis

The points listed below are a summary of the conclusions (copied and in some cases modified slightly) addressed at the beginning of each section.

1. Putting COVID-19 in context of other diseases, and not taking into consideration inflation of numbers due to misreporting based on ambiguous definitions by the WHO and CDC, in addition to potential financial incentives for the reporting of COVID-19 deaths, COVID-19-related deaths are ***comparable*** to many other global diseases, COVID-19 has a ***low infection mortality rate*** and the ***majority of those infected recover*** from it.

2. The scientific literature also indicates a ***disproportional response***, in that, the measures taken have caused a significantly higher/a disproportionally larger negative impact than the virus itself, at the physiological, psychological, social, political, financial, moral and ethical levels (in addition to others not listed) with the potential to impact society for generations.

3. At the ***ethical*** level, the concept of "First do no harm" and the logical and common-sense approach and response of triage involving the assessment of the situation, the weighing of the risks and benefits and appropriately prioritizing appear to have been all but abandoned by many in the medical field. The literature indicates significant concerns and potential significant ***violations of the dignity of the human person***, in addition to ***human rights abuses*** resulting from the impositions made by governments and organizations.

4. ***Masks:*** While some scientific literature appears to indicate the usefulness of masks, the overwhelming evidence (including CDC studies) indicates that masks are not helpful in reducing the spread of COVID-19. Rather, it appears that masks increase problems. This is evident at various levels and includes, but is not limited to physiological (e.g., temperature alterations), physical (e.g., rashes, headaches), psychological and social (e.g., effect on communication and impact on human relationships and the dignity of the human person, including, but not limited to, in relation to sexuality) effects observed and reported.

5. ***Lockdowns and Isolation:*** The impact on the psychological and physiological (including immune) well-being, observed in previous and current research, and not to mention animal studies, indicate no justification for lockdowns, making them a significant violation of human rights.

6. ***PCR testing and Asymptomatic testing:*** The cumulative evidence pertaining to the PCR test, including the recent lab alert by the CDC (CDC, 07/21/2021), in addition to our knowledge pertaining to infectious disease, does not support either the use of the PCR test as a reliable test or the concept of asymptomatic testing.

7. ***"Vaccines"***: The cumulative evidence pertaining to COVID-19 including the ***low infection fatality rate***, the ***questionable efficacy*** of the vaccines (as is becoming more and more evident in their significantly

lower efficacy), the ***higher rates of infection*** in many of the countries with the highest rates of immunization (and as predicted by science before COVID-19), the VAERS and other data pertaining to ***reported adverse events***, and the presence of ***proven alternative treatments***, in addition to the ***violations of the established standard protocol*** for the testing of efficacy and safety of any treatment given to humans, all point to substantial violations of the various established protections of humans in research and outlined first in the Nuremberg Code, and reflect a significant attack on human dignity and human rights. Additionally, ***efficacy of vaccines*** appears to be ***lower than natural immunity*** and increases the potential for severe infections from variants relative to those who are unvaccinated and ***do not appear to reduce the spread***, as shown in the case of the Delta variant.

8. ***Other treatments:*** understanding the various issues involved in SARS-CoV-2 infection, such as the inflammation, low vitamin D levels, the coagulation issues, understanding the role of comorbidities provides us with a significant opportunity to target this virus at various levels. And not to mention the various successful drugs that have been reported to show effectiveness against the virus.

Conclusion: In summary, considering the scientific, medical and the broad societal evidence addressed in this document pertaining to SARS-CoV-2, COVID-19 and the vaccines, the COVID-19-related interventions (including, but not limited to, "vaccines" and mask mandates, lockdowns, isolation, etc.), appear to reflect a disproportionate and unjustified response that will likely have long-term significant repercussions on physical (including immunological), psychological and societal health.

1. Putting SARS-CoV2 and COVID-19 in Perspective - the reality of COVID-19 morbidity and recovery

Summary:

Putting COVID-19 in context of :

- other diseases, and
- not taking into consideration inflation of numbers due to misreporting based on ambiguous definitions by the WHO and CDC (see below), in addition to
- potential financial incentives for the reporting of COVID-19 deaths (Miller, 2020),

- ❖ COVID-19-related deaths are not any more alarming than any other global disease,
- ❖ COVID-19 has a low infection mortality rate and
- ❖ The majority of those infected recover from it.

1.1 Definitions in the Age of COVID-19

- **WHO** (2020)**:**

2. DEFINITION FOR DEATHS DUE TO COVID-19

A death due to COVID-19 is defined for surveillance purposes as a death resulting from a clinically compatible illness, in a probable or confirmed COVID-19 case, unless there is a clear alternative cause of death that cannot be related to COVID disease (e.g. trauma). There should be no period of complete recovery from COVID-19 between illness and death.

A death due to COVID-19 may not be attributed to another disease (e.g. cancer) and should be counted independently of preexisting conditions that are suspected of triggering a severe course of COVID-19.

- **CDC** (National Center for Health Statistics, 2020)**:**

In cases where a definite diagnosis of COVID–19 cannot be made, but it is suspected or likely (e.g., the circumstances are compelling within a reasonable degree of certainty), it is acceptable to report COVID–19 on a death certificate as "probable" or "presumed." In these instances, certifiers should use their best clinical judgement in determining if a COVID–19 infection was likely. However, please note that testing for COVID–19 should be conducted whenever possible.

- Meddling with definitions is not restricted to deaths by COVID-19 but also in relation to vaccines:
  - CDC Definitions of Vaccine and Vaccination (**August 26, 2021**)[1]:
    - "**Vaccine**: A product that stimulates a person's immune system to produce immunity to a specific disease, protecting the person from that disease. Vaccines are usually administered through needle injections, but can also be administered by mouth or sprayed into the nose.
    - **Vaccination**: The act of introducing a vaccine into the body to produce immunity to a specific disease."
  - CDC Definitions of Vaccine and Vaccination since **September 1, 2021**[2]:
    - "**Vaccine**: A preparation that is used to stimulate the body's immune response against diseases. Vaccines are usually administered through needle injections, but some can be administered by mouth or sprayed into the nose.
    - **Vaccination**: The act of introducing a vaccine into the body to produce protection from a specific disease."

1.1 False Predictions, Misrepresentation, Intimidation, Terrorizing, Bullying, Labeling & Vilification

- A significant part of the world's response to COVID-19 was based on faulty models propagated by Dr. Ferguson (Ferguson et al., 2020) from Imperial College, London, whose credibility had already been questioned previously in relation to other models[3]. In an assessment of Dr. Ferguson's work, Dr. P. Magness, a Senior Research Faculty and Interim Research and Education Director at the American Institute for Economic Research, stated in April 2021:

> *"So how is the model's projection performing? Sweden's government stayed the course with its milder mitigation strategy. As of April 29th, Sweden's death toll from COVID-19 stands at 2,462, and its hospitals are nowhere near the projected collapse."*

- Some models did predict reasonable numbers: "Using variation in demographics, comorbidities and health system capacity, we predict COVID-19 IFRs [infection fatality rate] for 187 countries, ranging from 0.43% in Western Sub-Saharan Africa to 1.45% in Eastern Europe." (Ghisolfi et al., 2020)

- Two major contributors fueling the COVID-19-related population panic were:

  1) the inappropriate categorization of numerous non-COVID-19 related hospitalization cases as a result of vague/ambiguous CDC instructions (National Center for Health Statistics, 2020) in addition to potential financial initiatives (Miller, 2020), and

  2) the inappropriate representation of numbers. For numbers to be meaningful, context needs to be provided. Therefore, percentages (in addition to the raw numbers) provide a better understanding of the impact of a disease (e.g., as per schizophrenia, Parkinson's, etc., when we are referring to prevalence in a population). However, this standard behavior was not followed, and the media, irrespective of ideological allegiance, continued to feed the frenzied panic. The reality of inappropriateness in the use of numbers is indicated in the guidance update of the HHS, issued on January 6, 2022 and effective February 2, 2022 (Health and Human Services, 2022). Under the section "*Data Elements Made **Inactive** for the Federal Data Collection*" [emphasis is mine], one of the items

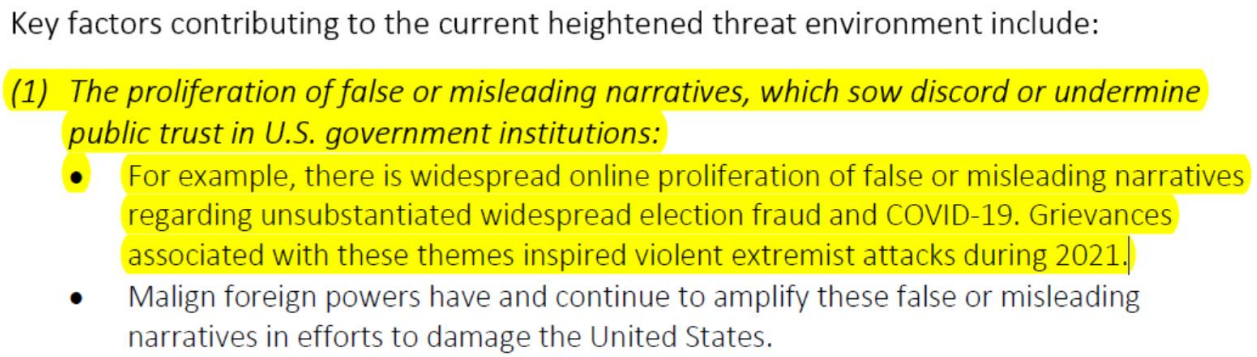
[1] https://web.archive.org/web/20210826113846/https:/www.cdc.gov/vaccines/vac-gen/imz-basics.htm
[2] https://www.cdc.gov/vaccines/vac-gen/imz-basics.htm
[3] https://www.nationalreview.com/corner/professor-lockdown-modeler-resigns-in-disgrace/

listed to be ***made inactive*** is the "*Previous Day's COVID-19 Deaths*", which had been the only required reporting of COVID deaths.

- A key aspect of this "pandemic" that has been emerging more strongly with time is the intolerance towards those who are critical of the steps taken. This is irrespective of the arguments provided – no scientific or humanitarian fact, no matter how logical, is tolerated. The literature below seeks to address this reality.
  - "The present study aimed to investigate whether ***narcissism*** levels and message framing strategies affect individuals' willingness to accept personal restrictions and, consequently, comply with a set of preventive health behaviors. Results reveal that people high (vs. low) in grandiose narcissism are less likely to accept personal restrictions and comply with preventive health behaviors, with negative (vs. positive) message framing constituting a more effective strategy for convincing such individuals to comply with said restrictions and behaviors. This effect can be explained through a more pronounced willingness of participants high in grandiose narcissism to accept personal restrictions to protect themselves (egoistic motivation) but not through a willingness to protect vulnerable people (altruistic motivation). Our findings suggest that individuals who remain uncooperative during pandemics could be more effectively addressed with ***adapted message framing strategies and incentives tailor-made for their distinct personalities.***" (Otterbring et al., 2021) [**Interpretation**: manipulate the narrative/information and provide incentives; this has been evident for some time, with billboards featuring children, when the minimal vulnerability of children to the virus and the harm of the vaccines to younger ages is clearly documented]
  - The National Terrorism Advisory System updated its definition of terrorism on February 7, 2022. In the advisory are addressed key factors "contributing to the current heightened threat environment". The first factor addressed is:

    "(1) The proliferation of false or misleading narratives, which sow discord or undermine public trust in U.S. government institutions:

    - ***For example, there is widespread online proliferation of false or misleading narratives regarding unsubstantiated widespread election fraud and COVID-19. Grievances associated with these themes inspired violent extremist attacks during 2021***." [**Interpretation**: Truth does not matter. The only "truth" that exists is that provided by the governmental institutions]


Key factors contributing to the current heightened threat environment include:

(1) The proliferation of false or misleading narratives, which sow discord or undermine public trust in U.S. government institutions:

- For example, there is widespread online proliferation of false or misleading narratives regarding unsubstantiated widespread election fraud and COVID-19. Grievances associated with these themes inspired violent extremist attacks during 2021.
- Malign foreign powers have and continue to amplify these false or misleading narratives in efforts to damage the United States.

Figure 1: https://www.dhs.gov/ntas/advisory/national-terrorism-advisory-system-bulletin-february-07-2022

- Related to the terrorizing aspect is the push by major medical associations to silence those opposing the narrative (be it COVID, gender, climate, etc.)

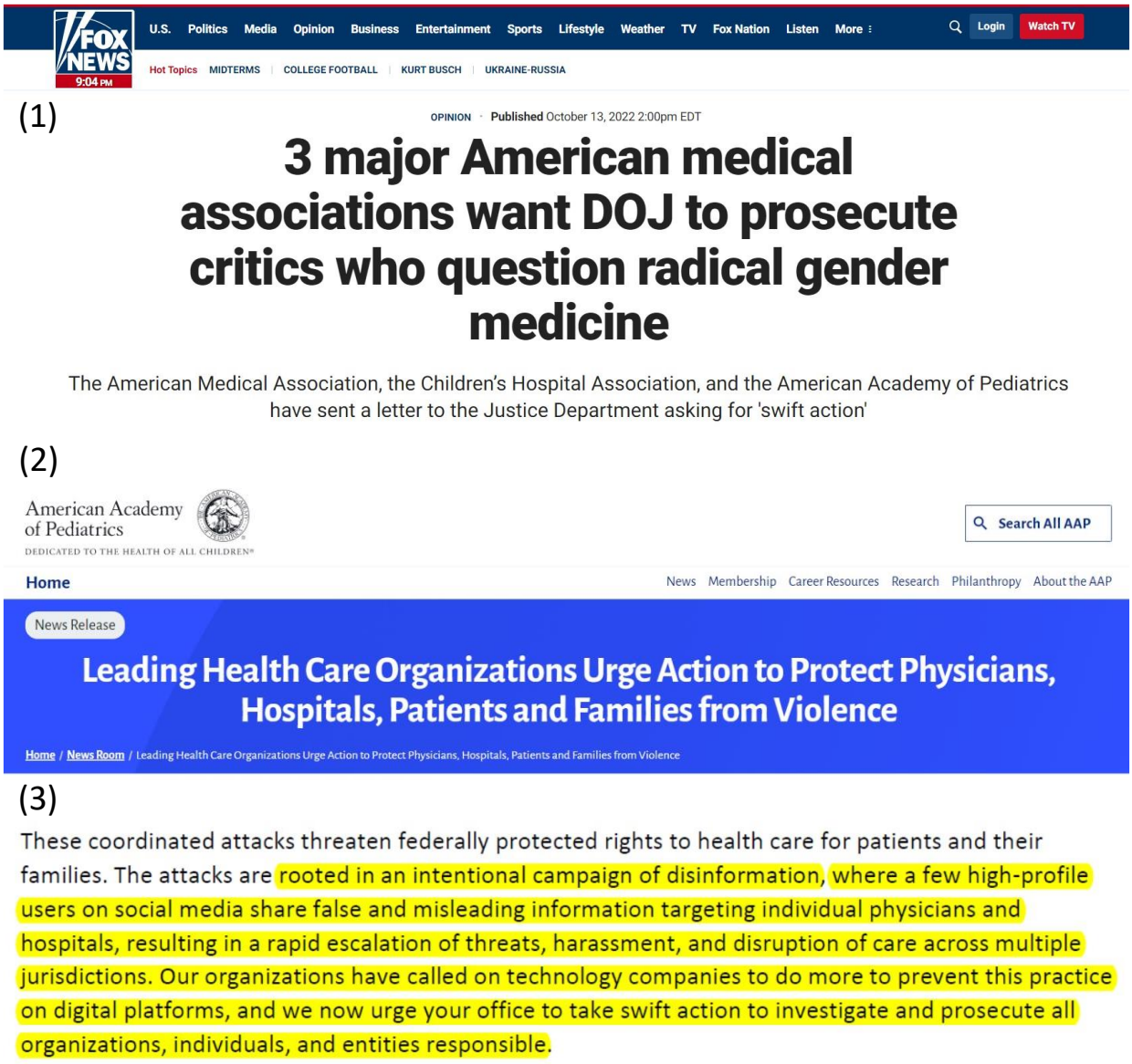


Figure 2: ***(1)*** *https://www.foxnews.com/opinion/3-major-american-medical-associations-want-doj-prosecute-critics-question-radical-gender-medicine* ***(2)*** *https://www.aap.org/en/news-room/news-releases/aap/2022/leading-health-care-organizations-urge-action-to-protect-physicians-hospitals-patients-and-families-from-violence/* ***(3)*** *https://downloads.aap.org/DOFA/DOJ%20Letter%20Final.pdf*

  - Wang et al. (2022)
    - "Excess mortality due to the COVID-19 pandemic, defined as the net difference between the number of deaths during the pandemic (measured by observed or estimated all-cause mortality) and the number of deaths that would be expected on the basis of past trends in all-cause mortality, is therefore a crucial measure of the true toll of the COVID-19 pandemic."

- "Our estimates of COVID-19 excess mortality suggest the mortality impact from the COVID-19 pandemic has been more devastating than the situation documented by official statistics. Official statistics on reported COVID-19 deaths provide only a partial picture of the true burden of mortality. The difference between excess mortality and reported COVID-19 deaths might be a ***function of underdiagnosis due to insufficient testing, reporting challenges, or higher than expected mortality from other diseases due to pandemic-related changes in behaviours or reduced access to health care or other essential services***" [**Interpretation:** The study appears to be admitting that there were excess deaths associated with COVID-19, however, contrary to available evidence, blames the deaths on the virus rather than the measures implemented and the negative consequences they caused (e.g., drug overdoses, suicides, ventilator misuse, etc., etc.)]

- The confusion and manipulation that exists in regards to the numbers pertaining to COVID-19 deaths is evident at multiple levels:
  - Addressed earlier, the HHS stopped the counting of COVID-19 related deaths (Health and Human Services, 2022),
  - The CDC has also in discretely placed footnotes[4] indicated that "On ***August 12, 2021***, data on deaths were adjusted after the ***identification of a data discrepancy***. This resulted in updated counts across several age groups. On ***March 15, 2022***, data on deaths were ***adjusted after resolving a coding logic error***. ***This resulted in decreased death counts across all demographic categories***."

Data Sources, References & Notes: The case classifications for COVID-19, a nationally notifiable disease, are described in an updated COVID-19 position statement and case definition issued by the Council of State and Territorial Epidemiologists. However, there is some variation in how jurisdictions implement these case classifications. More information on how CDC collects COVID-19 case surveillance data can be found at FAQ: COVID-19 Data and Surveillance. Demographic data for COVID-19 cases and deaths is based on a subset of individuals where case-level data are reported by state and territorial jurisdictions to the Centers for Disease Control and Prevention (CDC) since January 21, 2020. Demographic data have varying degrees of missing data and are not generalizable to the entire population of individuals with COVID-19. All displayed counts include confirmed COVID-19 cases and deaths as reported by U.S. states, U.S. territories, New York City (NYC), and the District of Columbia from the previous day. Counts for certain jurisdictions also include probable COVID-19 cases and deaths. The process used for finding and confirming COVID-19 cases displayed by other sites may differ. Counts from surveillance data are provisional and subject to change. On July 22, 2021, COVID Data Tracker released an update to display cases by age group using new age groupings. On August 12, 2021, data on deaths were adjusted after the identification of a data discrepancy. This resulted in updated counts across several age groups. On March 15, 2022, data on deaths were adjusted after resolving a coding logic error. This resulted in decreased death counts across all demographic categories.

Figure 3: footnote from https://covid.cdc.gov/covid-data-tracker/#demographics accessed 03/21/22

- Yet papers continue to argue for increased numbers (e.g., Stokes et al., 2021;Wang et al., 2022), never admitting or considering the biopsychosocial destruction (e.g., increased deaths due to drug overdoses, etc.) that resulted from the measures.

1.2 COVID-19 in Context

[4] https://covid.cdc.gov/covid-data-tracker/#demographics – Click on Footnotes and Additional information and then click on the plus sign next to the Footnotes

- Global statistics for comparison with COVID-19-related deaths. Unless indicated otherwise, data is for 2020.

Reason for death	Number of deaths
Abortion	42.7 million (~0.5% of the world's population)[5]
Abortion (1st 10 days of 2021)	1.1 million[4]
Cardiovascular disease	13.0 million[6]
Communicable disease	17.9 million[4]
Deaths of children under 5	7.6 million[4]
COVID	1.8 million[7]
Diarrhea	1.7 million (in 2016) (Troeger et al., 2018)

Table 1 Comparison of number of deaths associated with various causes

1.2.1 Infection and mortality rates

- COVID-19 is considered to have a LOW infection mortality rate (IFR) as indicated by the statistics below O'Driscoll et al. (2021) [Data is "age-specific COVID-19-associated death data from 45 countries and the results of 22 seroprevalence studies"]
    - COVID-19 Fatality rates by age:
        - 0-4 yrs old: **0.003%**,
        - 5-9 yrs old: **0.001%**,
        - 10-14 yrs old: **0.001%**,
        - 15-19 yrs old: **0.003%**,
        - 20-24 yrs old: **0.006%**,
        - 25-29 yrs old: **0.013%**,
        - 30-34 yrs old: **0.024%**,
        - 35-39 yrs old: **0.040%**,
        - 40-44 yrs old: **0.075%**,
        - 45-49 yrs old: **0.121%**,
        - 50-59 yrs old: **0.323%**,
        - 60-64 yrs old: **0.456%**,
        - 65-69 yrs old: **1.075%**,
        - 70-74 yrs old: **1.674%**,
        - 75-79 yrs old: **3.203%**,
        - 80+ yrs old: **8.2%**
    - Note: An 80 year old has a 6% chance of dying from anything within a year; An 85 year old has a 10% chance.[8]
- Other papers that reflect similar information include:

[5] https://www.worldometers.info/ (Percentage is calculated from # abortions in 2020/Current World Population)
[6] https://www.who.int/health-topics/cardiovascular-diseases/#tab=tab_1
[7] https://coronavirus.jhu.edu/
[8] https://www.ssa.gov/OACT/STATS/table4c6.html#ss

- "Age-specific COVID-19 cases and deaths in Victoria, Australia, during 25 January through 10 December, 2020. Observed case fatality risk (CFR) is the ratio of deaths to cases." (Data in Table 1):
  - 0-9 yrs old: **0%**; 10-19 yrs old: **0%**; 20-29 yrs old: **0.02%**; 30-39 yrs old: **0.06%**; 40-49 yrs old: **0.04%**; 50-59 yrs old: **0.63%**; 60-69 yrs old: **2.16%**; 70-79 yrs old: **14.41%**; 80-89 yrs old: **31.90%**; ≥90 yrs old: **40.03%.** [**NOTE**: Data at the older ages needs to be interpreted with caution, given the possibility of other causes [e.g. the isolation, the loneliness, inappropriate treatments etc. as reported in numerous other papers, that may have severely impacted the outcome of survival in the elderly. Of course, the abstract results only focus on the older ages!] (Marschner, 2021)
- "Across all countries, the median IFR in community-dwelling elderly and elderly overall was 2.4% (range 0.3%-7.2%) and 5.5% (range 0.3%-12.1%). IFR was higher with larger proportions of people >85 years. Younger age strata had low IFR values (median **0.0027%**, **0.014%**, **0.031%**, **0.082%**, **0.27%**, and **0.59%**, at 0-19, 20-29, 30-39, 40-49, 50-59, and 60-69 years)…The IFR of COVID-19 in community-dwelling elderly people is lower than previously reported. Very low IFRs were confirmed in the youngest populations." (Axfors and Ioannidis, 2021)
- "…we estimate the overall IFR [Infection Fatality Rate] in a typical low-income country, with a population structure skewed towards younger individuals, to be 0.23% (0.14-0.42 95% prediction interval range). In contrast, in a typical high income country, with a greater concentration of elderly individuals, we estimate the overall IFR to be 1.15% (0.78-1.79 95% prediction interval range)." (Brazeau et al., 2020)
- "This suggests that the overall clinical consequences of Covid-19 may ultimately be more akin to those of a severe seasonal influenza (which has a case fatality rate of approximately 0.1%) or a pandemic influenza (similar to those in 1957and 1968) rather than a disease similar to SARS or MERS, which have had case fatality rates of 9 to 10% and 36%, respectively." (Fauci et al., 2020)
- "Infection fatality rates ranged from 0.00% to 1.63%, corrected values from 0.00% to 1.54%. Across 51 locations, the median COVID-19 infection fatality rate was 0.27% (corrected 0.23%): the rate was 0.09% in locations with COVID-19 population mortality rates less than the global average (< 118 deaths/million), 0.20% in locations with 118–500 COVID-19 deaths/million people and 0.57% in locations with > 500 COVID-19 deaths/million people. In people younger than 70 years, infection fatality rates ranged from 0.00% to 0.31% with crude and corrected medians of 0.05%." (Ioannidis, 2021)

1.2.2 Recovery rates

- Recovery rates have been reported as being between 97% and 99.75% (Vinod, 2020)

1.2.3 Comorbidity

- Comorbidity with other diseases (e.g. obesity, heart failure, chronic kidney disease) is a significant contributor to death (Petrilli et al., 2020;Zhou et al., 2020a) and makes up ~ 94% of reported deaths ("For 6% of the deaths, COVID-19 was the only cause mentioned") (CDC, 2020a).
  - Comorbidities play a significant role in COVID-19 deaths in children, otherwise the risk of death is low:
    - "**Results**: Mortality in SARS-COV2 infected people varied considerably, between 7 and 155 deaths per million per year in the under-20 age groups compared to 441 to 15,929 in

the older age groups. Mortality in pediatric populations is strongly associated with comorbidities (OR: 4.6-47.9) compared to the milder association for older age groups (OR: 3.16–1.23). **Conclusion**: ***The risk of death from SARS-COV2 infection in children is low and is strongly associated with comorbidities***." (Gonzalez-Garcia et al., 2021).

- "Children with comorbidities have a higher risk of severe COVID-19 and associated mortality than children without underlying disease." (Tsankov et al., 2021)
- "Forty patients (83%) had significant preexisting comorbidities…Prehospital comorbidities appear to be an important factor in children." (Shekerdemian et al., 2020)

- "Among 148,494 adults who received a COVID-19 diagnosis during an emergency department (ED) or inpatient visit at 238 U.S. hospitals during March-December 2020, ***28.3% had overweight and 50.8% had obesity***. ***Overweight and obesity were risk factors for invasive mechanical ventilation. Obesity was a risk factor for hospitalization and death***, particularly among adults aged <65 years." (Kompaniyets et al., 2021)
- Reason for link between obesity being a comorbidity in COVID-19-related deaths: "Collectively, our findings indicate that ***adipose tissue supports SARS-CoV-2 infection and pathogenic inflammation*** and may explain the link between obesity and severe COVID-19" (Martínez-Colón et al., 2021)
- Percent mortality among COVID-19 patients, April-August 2020:
  - **No comorbidities**: 0-18: 0.00%; 19-29: 0.02%; 30-39: 0.06%; 40-49: 0.14%; 50-59: 0.40%; 60-69: 0.97%; 70+: 2.74% (FAIR Health et al., 2020)

1.2.4 Inflammation is a key issue in COVID-19

- "Accumulating evidence suggests that severe COVID-19 is associated with an increased plasma level of inflammatory mediators including cytokines and chemokines such as interleukin (IL)-2, IL-6, IL-7, IL-10, tumor necrosis factor alpha (TNF-α), monocyte chemoattractant protein-1 (MCP1; also known as CCL2), macrophage inflammatory protein 1 alpha (MIP1α; also known as CCL3), C-reactive protein, ferritin, and D-dimers (Hojyo et al., 2020)."(Hoertel et al., 2021)
- "Controlling the inflammatory response may be as important as targeting the virus. Therapies inhibiting viral infection and regulation of dysfunctional immune responses may synergize to block pathologies at multiple steps. At the same time, the association between immune dysfunction and outcome of disease severity in patients with COVID-19 should serve as a note of caution in vaccine development and evaluation." (Tay et al., 2020)
- "Overall, experiments from multiple independent laboratories of the SAVE/NIAID network with several different B.1.1.529 [the Omicron variant] isolates ***demonstrate attenuated lung disease in rodents, which parallels preliminary human clinical data***." (Diamond et al., 2021)

2. Ignored Evidence of Toll on Humanity due to Measures Imposed

Summary:

- The data indicates that measures taken to purportedly contain the spread of COVID-19 have caused a significant negative impact at the physiological, psychological, social, political, financial, moral and ethical levels (in addition to others not listed) with the potential to impact society for generations.

2.1 Mental Health Consequences

- "Symptoms of anxiety and depression increased during the pandemic and are more pronounced among individuals experiencing household job loss, young adults, and women. Adolescent females have also experienced increased feelings of hopelessness and sadness compared to their male peers." (Panchal et al., 2023)

- "While COVID-19 vaccines have had a profound impact on decreasing global morbidity and mortality burdens, we argue that ***current population-wide mandatory vaccine policies are scientifically questionable, ethically problematic, and misguided***. Such policies may lead to detrimental long-term impacts on uptake of future public health measures, including COVID-19 vaccines themselves as well as routine immunizations. ***Restricting people's access to work, education, public transport, and social life based on COVID-19 vaccination status impinges on human rights, promotes stigma and social polarization, and adversely affects health and wellbeing.*** Mandating vaccination is one of the most powerful interventions in public health and should be used sparingly and carefully to uphold ethical norms and trust in scientific institutions. We argue that current COVID-19 vaccine policies should be reevaluated in light of negative consequences that may outweigh benefits. Leveraging empowering strategies based on trust and public consultation represent a more sustainable approach for protecting those at highest risk of COVID-19 morbidity and mortality and the health and wellbeing of the public." (Bardosh et al., 2022)

- Letter to President and Vice-Chancellor, University of British Columbia from the Office of the Chief Medical Officer, Vancouver Coastal Health (Office of the Chief Medical Officer, February 16, 2022) addressing the move towards de-registering students who have not declared their vaccination status or complied with mandatory testing stated,

  - "***Good public health policy means implementing restrictions that are the least intrusive available, based on scientific evidence, neither arbitrary nor discriminatory in application, of limited duration, respectful of human dignity and subject to review.***" [**NOTE:** this statement addresses well the globally ignored humanitarian aspect related to COVID-19 in the past two years].

  - Moreover, in regard to testing, the letter stated, "Not only is Rapid Antigen Testing of asymptomatic people unreliable in identifying infection with Omicron variant, but we have no evidence that those who have not complied with UBC policies have posed any public health risk to their fellow students, faculty or staff, even during circulation of other variants."

- "Worry about COVID-19 infection, stressful living conditions, lower grades, and loneliness emerged as correlates of deteriorating mental health. COVID-19's mental health impact on college

students is alarming and highlights the need for public health interventions at the university level." (Reyes-Portillo et al., 2022)

- "Our findings indicate a substantial proportion of students in the severe and extremely severe categories of the depression, anxiety and stress scales…Additionally, a significant proportion of students (***~50%***) reported perceiving a deterioration in their mental health relative to before the onset of the COVID-19 pandemic, with the proportion of females being significantly higher than males." (Camilleri et al., 2022)
- "The results indicated that anxiety score was 22.76 and ***40.6%*** of the participant experienced moderate to severe anxiety…" (Alqudah et al., 2021)
- "Conclusions: Compared with a global ***estimated prevalence of depression*** of 3.44% in 2017, our pooled prevalence of **25%** appears to be ***7 times higher***, thus suggesting an important impact of the COVID-19 outbreak on people's mental health." (Bueno-Notivol et al., 2021)
- Horigian et al. (2021)
    - "Forty-nine percent of respondents reported ***loneliness*** scores above 50 [Items were summed to create a score ranging from 20 to 80, with higher scores being indicative of greater loneliness];
    - **80%** reported significant ***depressive*** symptoms;
    - **61%** reported moderate to severe ***anxiety***;
    - **30%** disclosed harmful levels of ***drinking***.
    - **22%** of the population reported using ***drugs***,
    - **38%** reported severe ***drug*** use.
    - ***Loneliness*** was associated with higher levels of mental health symptomatology. Participants reported significant increases across mental health and substance use symptoms since COVID-19"
- Magnitude is difficult to currently quantify due to the typical delay that is observed in the manifestation of negative mental health consequences (Rajkumar, 2020).
- "Disease itself multiplied by forced quarantine to combat COVID-19 applied by nationwide lockdowns can produce acute panic, anxiety, obsessive behaviors, hoarding, paranoia, and depression, and post-traumatic stress disorder (PTSD) in the long run." (Dubey et al., 2020)
- The possibility of extreme psychological stress (including data being analyzed currently from our university)…
    - "Taken together, our findings support emerging research that ***COVID-19 can be understood as a traumatic stressor event capable of eliciting PTSD-like responses and exacerbating other related mental health problems*** (e.g., anxiety, depression, psychosocial functioning, etc.). Our findings add to existing literature supporting a pathogenic event memory model of traumatic stress." (Bridgland et al., 2021) [study conducted on a sample from 5 western countries]
    - "Alcohol use, PTSD, anxiety, anger, fear of contagion, perceived risk, uncertainty, and distrust are a few of the immediate and long-term effects that are likely to result from the COVID-19 pandemic." (Esterwood and Saeed, 2020)
- Czeisler et al. (2020)

- **40.9%** of individuals reported at least one adverse event related to the pandemic:
  - **30.9%** depressive/anxiety disorder
  - **26.3%** trauma & stressor related disorder
  - **13.3%** started or increased substance use to cope with pandemic

- Fiorillo et al. (2020)
  - "One of our main findings is the presence of moderate to severe levels of depressive, anxiety, and stress symptoms"
  - "…the high rate (14.5%) of suicidal ideation/suicidal thoughts found in our sample."

- "Social isolation, anxiety, fear of contagion, uncertainty, chronic stress and economic difficulties may lead to the development or exacerbation of depressive, anxiety, substance use and other psychiatric disorders in vulnerable populations including individuals with pre-existing psychiatric disorders and people who reside in high COVID-19 prevalence areas. Stress-related psychiatric conditions including mood and substance use disorders are associated with suicidal behavior. COVID-19 survivors may also be at elevated suicide risk. The COVID-19 crisis may increase suicide rates during and after the pandemic. Mental health consequences of the COVID-19 crisis including suicidal behavior are likely to be present for a long time and peak later than the actual pandemic." (Sher, 2020)
- **25.5%** (18-24yo) seriously considered suicide in 30 days prior to survey (Czeisler et al., 2020)
- The WHO itself was not consistent about the efficacy of lockdowns, warning against ending them early (3/25/2020)[9] and shortly after warning against the lockdowns due to economic damage (10/11/2020)[10].

2.2 Drug Overdose

- "Deaths due to ***drug overdose*** [**by 50%**] increased sharply across the total population coinciding with the pandemic – and more than doubled among adolescents. Drug overdose death rates are highest among American Indian and Alaska Native people and Black people…***Alcohol-induced death rates*** increased [**by 38%**] substantially during the pandemic, with rates increasing the fastest among people of color and people living in rural areas." (Panchal et al., 2023)
- "The number of deaths involving ***alcohol*** increased between 2019 and 2020 (from 78927 to 99017 [relative change, 25.5%]), as did the age-adjusted rate (from 27.3 to 34.4 per 100 000 [relative change, 25.9%])…***The rate increase for alcohol-related deaths in 2020 outpaced the increase in all-cause mortality***, which was 16.6%. Previous reports suggest the number of opioid overdose deaths increased 38%in 2020, with a 55% increase in deaths involving synthetic opioids such as fentanyl (National Institute on Drug Abuse, 2022.) There were similar increases in the number of deaths in which alcohol contributed to overdoses of opioids (40.8%) and, specifically, synthetic opioids (59.2%). Deaths involving alcohol reflect hidden tolls of the pandemic." (White et al., 2022)
- **50%** rise in deaths due to suspected ***opioid*** overdoses (Glober et al., 2020;Haley and Saitz, 2020;Slavova et al., 2020)

[9] https://nypost.com/2020/03/25/who-warns-against-ending-coronavirus-lockdowns-too-early/
[10] https://nypost.com/2020/10/11/who-warns-against-covid-19-lockdowns-due-to-economic-damage/

- "***Synthetic opioids*** (primarily illicitly manufactured fentanyl) appear to be the primary driver of the increases in overdose deaths, increasing 38.4 percent from the 12-month period leading up to June 2019 compared with the 12-month period leading up to May 2020. During this time period:
    - 37 of the 38 U.S. jurisdictions with available synthetic opioid data reported increases in synthetic opioid-involved overdose deaths.
    - 18 of these jurisdictions reported increases greater than 50 percent.
    - 10 western states reported over a 98 percent increase in synthetic opioid-involved deaths." (CDC, 2020b)

2.3 Delays in addressing other disease

- **19-43%** predicted increase in deaths due to delayed cancer surgery as a result of COVID-19 – "Modest delays in surgery for cancer incur significant impact on survival." (Sud et al., 2020)
- Richardson and Bentley (2020) – document describes (citing other sources – see original document for citations) various aspects of disruption associated with Cancer due to COVID-19.
    - **Screening:** "Cancer Research UK has highlighted that as a result of these measures, approximately 210,000 people per week are not being screened, thus missing the opportunity for early detection of cancer in a significant number of citizens"
    - **Referrals:** "Amid the pandemic, urgent referrals have decreased significantly compared to usual levels in England. Early data from April by DATA-CAN, the UK Health Data Research Hub for Cancer, showed a drop as high as **76%** in 'two-week-wait' (2WW) referrals in selected sites, while their more recent data show that this has recovered to a level that is **45%** lower than normal."
    - **Diagnosis:** "Due to the COVID-19 outbreak, the number of performed CT scans dropped by **28%** in April, May and June 2020 compared to the same time last year, with the additional challenge that CT scanning has been used to diagnose COVID-19. MRI scanning has also decreased by 53%."
    - **Treatment:** "Data from May shows a **29%** cancellation rate of cancer surgery, equivalent to more than 36,000 surgeries, while more recent estimates suggest a reduction of up to **40%**.

2.4 Other Consequences Reported

- **41.5%** increase in ***pornography*** use in the US (Pornhub, 2020)
- **8.7-30%** increase in ***unemployment*** rates (Janaskie and Earle, 2020)
- **27.6-34.0%** reduction in ***GDP*** across the various regions in the US (Janaskie and Earle, 2020)
- "We find that children born during the pandemic have significantly ***reduced verbal, motor, and overall cognitive performance*** compared to children born pre-pandemic. Moreover, we find that males and children in lower socioeconomic families have been most affected." (Deoni et al., 2021)
- Disturbances in ***sleep*** (Fiorillo et al., 2020;Son et al., 2020;Alimoradi et al., 2021;Mandelkorn et al., 2021;Morin and Carrier, 2021;Alqahtani et al., 2022;Ferreira-Souza et al., 2023).
- Higher death rates in ***intubated*** patients (Richardson et al., 2020)
    - "Mortality rates for those who received mechanical ventilation in the 18-to-65 and older-than-65 age groups were 76.4% and 97.2%, respectively. Mortality rates for those in the

18-to-65 and older-than-65 age groups who did not receive mechanical ventilation were 1.98% and 26.6%, respectively. There were no deaths in the younger-than-18 age group."

Covid-19 Fatality Rates by Age:		Collateral Consequences resulting from Measures

0-4 yrs old: 0.003%,
5-9 yrs old: 0.001%,
10-14 yrs old: 0.001%,
15-19 yrs old: 0.003%,
20-24 yrs old: 0.006%,
25-29 yrs old: 0.013%,
30-34 yrs old: 0.024%,
35-39 yrs old: 0.040%,
40-44 yrs old: 0.075%,
45-49 yrs old: 0.121%,
50-59 yrs old: 0.323%,
60-64 yrs old: 0.456%,
65-69 yrs old: 1.075%,
70-74 yrs old: 1.674%,
75-79 yrs old: 3.203%,
80+ yrs old: 8.2%,
 	
for reference an 80 year old has a 6% chance of dying from anything within a year. An 85 year old a 10% chance.[1]
	0-19yrs old: 0.0027%
	20-29yrs old: 0.014%
	30-39yrs old: 0.031%
	40-49yrs old: 0.082%
	50-59yrs old: 0.27%
	60-69yrs old: 0.59%
	70+ yrs old: 2.4%
		• **40.9%** of individuals reported at least one adverse event related to the pandemic (Czeisler et al., 2020):
		  ○ **30.9%** depressive/anxiety disorder
		  ○ **26.3%** trauma & stressor related disorder
		  ○ **13.3%** started or increased substance use to cope with pandemic
		• **50%** rise in deaths due to suspected opioid overdoses (Glober et al., 2020;Haley and Saitz, 2020;Slavova et al., 2020)
		  ○ "Synthetic opioids (primarily illicitly manufactured fentanyl) appear to be the primary driver of the increases in overdose deaths, increasing 38.4 percent from the 12-month period leading up to June 2019 compared with the 12-month period leading up to May 2020. During this time period:
		  ▪ 37 of the 38 U.S. jurisdictions with available synthetic opioid data reported increases in synthetic opioid-involved overdose deaths.
		  ▪ 18 of these jurisdictions reported increases greater than 50 percent.
		  ▪ 10 western states reported over a 98 percent increase in synthetic opioid-involved deaths." (CDC, 2020b)
		• **25.5%** (18-24yo) seriously considered suicide in 30 days prior to survey (Czeisler et al., 2020)
		• **41.5%** increase in pornography use in the US (Pornhub, 2020)
		• **8.7-30%** increase in unemployment rates (Janaskie and Earle, 2020)
		• **27.6-34.0%** reduction in GDP across the various regions in the US (Janaskie and Earle, 2020)
		• **19-43%** predicted increase in deaths due to delayed cancer surgery as a result of COVID-19 – "Modest delays in surgery for cancer incur significant impact on survival." (Sud et al., 2020)
		• **Other consequences reported:**
		  ○ "We find that children born during the pandemic have significantly reduced verbal, motor, and overall cognitive performance compared to children born pre-pandemic. Moreover, we find that males and children in lower socioeconomic families have been most affected." (Deoni et al., 2021)

O'Driscoll, M., Ribeiro Dos Santos, G., Wang, L., Cummings, D.A.T., Azman, A.S., Paireau, J., Fontanet, A., Cauchemez, S., and Salje, H. (2021). Age-specific mortality and immunity patterns of SARS-CoV-2. *Nature 590, 140-145.*	Axfors, C., and Ioannidis, J.P.A. (2021). Infection fatality rate of COVID-19 in community-dwelling populations with emphasis on the elderly: An overview.	
[1]see https://www.ssa.gov/oact/STATS/table4c6.html#ss)		

Table 2 Combined information from section 1 & 2 for comparison

3. The ethical issues in relation to the various mandates, lockdowns, vaccines, research, etc.

Summary:

- The literature indicates significant concerns and potential significant violations of the dignity of the human person, in addition to human rights abuses resulting from the impositions made by governments and organizations.

- The question of ethics is very real in all that has been going on in relation to COVID-19. It becomes even more serious when it impacts children. While there is every likelihood that these sources will change depending on the desired narrative, it is worth visiting the *Research with Children FAQs*[11], the *OHRP Guidance on Coronavirus*[12] and the *Code of Federal Regulations (CFR) Title 45, Part 46 on the Protection of Human Subjects*[13] government websites and being informed on what they say, most particularly in relation to the involvement of children in research. In the final document mentioned (CFR), note especially the following sections of the Code of Federal Regulations:

  - ***§46.405 Research involving greater than minimal risk but presenting the prospect of direct benefit to the individual subjects,*** states that the "HHS will conduct or fund research in which the IRB finds that more than minimal risk to children is presented by an intervention or procedure that holds out the prospect of direct benefit for the individual subject, or by a monitoring procedure that is likely to contribute to the subject's well-being, only if the IRB finds that:

    (a) The risk is justified by the anticipated benefit to the subjects; [**NOTE**: the risk is **not** justified given the higher propensity for significant side effects at all ages, but most especially in children relative to the extremely low morbidity rates observed with COVID-19 - see VAERS and other data relating to vaccines in other sections of this document]

    (b) The relation of the anticipated benefit to the risk is at least as favorable to the subjects as that presented by available alternative approaches; and [**NOTE**: the risks associated with the vaccines **far outweigh** the alternative approaches or even not receiving the vaccine itself – see mortality rates and recovery rates in other sections of this document]

    (c) Adequate provisions are made for soliciting the assent of the children and permission of their parents or guardians, as set forth in §46.408. [**NOTE**: This is also questionable given incidents of supposed/suspicious "incorrect administrations"[14] of vaccines and the mandates requiring children to be vaccinated to attend school[15], which amounts to coercion]"

[11] https://www.hhs.gov/ohrp/regulations-and-policy/guidance/faq/children-research/index.html
[12] https://www.hhs.gov/ohrp/regulations-and-policy/guidance/ohrp-guidance-on-covid-19/index.html
[13] https://www.hhs.gov/ohrp/regulations-and-policy/regulations/45-cfr-46/common-rule-subpart-d/index.html
[14] https://www.theepochtimes.com/mkt_app/virginia-pharmacy-incorrectly-administers-covid-19-vaccine-to-112-kids-officials_4100957.html
[15] https://www.reuters.com/world/us/fauci-backs-covid-19-vaccine-mandate-us-school-children-2021-08-29/

Interpretation: The COVID-19 vaccines do NOT fit under the criteria set out by ***§46.405*** of being research involving ***greater than minimal risk but presenting the prospect of direct benefit***

- ***§46.406 Research involving greater than minimal risk and no prospect of direct benefit to individual subjects, but likely to yield generalizable knowledge about the subject's disorder or condition*** states that "HHS will conduct or fund research in which the IRB finds that more than minimal risk to children is presented by an intervention or procedure that does not hold out the prospect of direct benefit for the individual subject, or by a monitoring procedure which is not likely to contribute to the well-being of the subject, only if the IRB finds that:

  (a) The risk represents a minor increase over minimal risk; [**NOTE**: the risk of side effects in young people is disproportionally higher than minimal risk]
  (b) The intervention or procedure presents experiences to subjects that are reasonably commensurate with those inherent in their actual or expected medical, dental, psychological, social, or educational situations; [**NOTE**: Commensurate is defined as "corresponding in size, extent, amount or degree"[16]. The reception of the COVID-19 vaccines and the subsequent potential consequences (e.g. pericarditis) do not compare, and are not "reasonably commensurate" to any normal experience of a child, physical, psychological, medical or educational."]
  (c) The intervention or procedure is likely to yield generalizable knowledge about the subjects' disorder or condition which is of vital importance for the understanding or amelioration of the subjects' disorder or condition; and [**NOTE**: the COVID-19 vaccines have only yielded a significant concern in relation to the significant side-effects that have been observed across all ages, but most especially in children]
  (d) Adequate provisions are made for soliciting assent of the children and permission of their parents or guardians, as set forth in §46.408. [**NOTE**: See comment under (c) for ***§46.405***]

Interpretation: The COVID-19 vaccines technically FIT under the description in the opening sentence of ***§46.406*** of being research involving ***greater than minimal risk and no prospect of direct benefit***. However, the COVID-19 vaccines do not fit under any of the criteria outlined in a-d.

- ***§46.407 Research not otherwise approvable which presents an opportunity to understand, prevent, or alleviate a serious problem affecting the health or welfare of children.***

Interpretation: The COVID-19 vaccines do NOT fit under the criteria set out by ***§46.407*** as they do **not** help in the understanding, preventing or alleviating of problems that affect the health or welfare of children.

- The ethical issues are highlighted in the following statement: "Since the incidence and disease burden of COVID-19 are very low in children, vaccination should not be primarily performed for their self-protection but for that of the community, mainly the elderly or high-risk individuals. Hence, each vaccine will have to be thoroughly tested and proven safe before being administered to children to respect the risk-benefit balance. Furthermore, pediatric COVID-19 vaccines would need to be proven efficient in the interruption or reduction of virus transmission. To date, no NHP [non-human primate] preclinical study

[16] https://www.merriam-webster.com/dictionary/commensurate

has assessed the effect of vaccination in the prevention of transmission, and end-points of human COVID-19 vaccine trials focus on the induction of immunity and individual protection against disease." (Eberhardt and Siegrist, 2021)

- Kowalik (2021)
    - "…there is neither a moral obligation to vaccinate nor a sound ethical basis to mandate vaccination under any circumstances, even for hypothetical vaccines that are medically risk-free. Agent autonomy with respect to self-constitution has absolute normative priority over reduction or elimination of the associated risks to life. In practical terms, ***mandatory vaccination amounts to discrimination against healthy, innate biological characteristics, which goes against the established ethical norms and is also defeasible a priori.***"
- Giubilini et al. (2021)
    - "Restrictions such as lockdowns and school closure compromise important societal and public goods and the well-being and health of young generations. Thus, a fairer way to protect vulnerable groups is to adopt ***focused protection strategies*** targeted at them: the burdens on them would be justified by the benefit they receive in terms of protection from COVID-19, something that is not true for young people."
    - "What matters, from an ethical point of view, is that the ***differential treatment is based not on arbitrary or irrelevant factors*** (which would make it discriminatory), but on morally relevant factors (eg, risks of COVID-19, individual benefit from restrictions, personal costs of restrictions, societal benefit and so on)."
    - "The only reason why we have imposed this burden on children is to serve other people's or broader societal interests. These measures have ***not*** been ***in the interest of children***, nor where they intended to be. The burden on them has been vast and the benefit of lockdowns for the collective at the very least questionable"
- Capozzo (2020)
    - "Many have ***died in isolation***. Dying alone is not justifiable, even in times of infection with a pandemic virus, particularly when the impact of imposing such a radical measure on the course of the epidemic is, at least, questionable."
    - "If we lose humanity, it will be our fault. We will not be able to blame it on the virus."
- Ussai et al. (2020)
    - "The dignity of the dead, their cultural and religious traditions, and their families should be always respected and protected. Among all the threats, COVID-19 epidemic in Italy revealed the fragility of human beings under enforced isolation and, for the first time, the painful deprivation of families to accompany their loved ones to the last farewell. Ethics poses new challenges in times of epidemics."
- Savulescu and Cameron (2020)
    - "Ethically, selective isolation is permissible. It is not unjust discrimination. It is analogous to only screening women for breast cancer: selecting those at a higher probability of suffering from

a disease. Even if it were unjust discrimination, it would be proportionate because it brings benefits to the elderly and is proportionate and necessary given the grave risks to the economy and subsequent well-being of the population of an indiscriminate lockdown. To oppose selective isolation of the elderly is to engage in levelling down equality which is itself morally repugnant."

- Vojdani and Kharrazian (2020)
    - "The promotion and implementation of such an aggressive "immune passport" program worldwide in the absence of thorough and meticulous safety studies may ***exact a monumental cost on humanity in the form of another epidemic, this time a rising tide of increased autoimmune diseases and the years of suffering that come with them.***"
- Sun et al. (2020)
    - This study investigated "clinically cured cases with positive results only in anal swabs, and investigate[d] the clinical value of anal swabs for SARS-CoV-2 detection". Despite the invasiveness of the procedure and the fact that a three-year old was one of the subjects, the article violated one of the most essential rules of research with humans – informed consent.
    - The ethics statement read as follows: "Ethical conduct of research: This study was approved by the Weihai Municipal Hospital review board, and the need for informed consent was waived."
        - [**NOTE:** Following concerns raised after publication, the article was first "***corrected***" to state "This study was approved by the Weihai Municipal Hospital review board, and written informed ***consent was retrospectively obtained*** from the patients in the study."[17] – **Please note**: there is NO such thing as retrospective consent.
        - This article was then "***retracted*** from Future Microbiology as it did not meet the ethical standards of the Journal, owing to a ***lack of informed consent obtained from the patients***, prior to publication"[18].]

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[17] https://www.futuremedicine.com/doi/10.2217/fmb-2020-0090c1
[18] https://www.futuremedicine.com/doi/epub/10.2217/fmb-2020-0090r1

4. Masks

Summary:

- While some scientific literature appears to indicate the usefulness of masks, the overwhelming evidence indicates that masks are not helpful in reducing the spread of COVID-19. Rather, it appears that masks increase problems. This is evident at various levels and includes, but is not limited to **physiological** (e.g. temperature alterations), **physical** (e.g. rashes, headaches), **psychological** and **social** (e.g. effect on communication and impact on human relationships and the dignity of the human person, including, but not limited to, in relation to sexuality) effects observed and reported.

- For additional information/scientific literature please see https://swprs.org/face-masks-evidence/. Some of the papers addressed here may also be on that website.

4.1 Inefficiency and inefficacy of masks

- "This is an update of a Cochrane Review last published in 2020. We include results from studies from the current COVID-19 pandemic… We included randomised controlled trials (RCTs) and cluster-RCTs investigating physical interventions (screening at entry ports, isolation, quarantine, physical distancing, personal protection, hand hygiene, face masks, glasses, and gargling) to prevent respiratory virus transmission…. There is ***uncertainty*** about the effects of face masks…The pooled results of RCTs ***did not show a clear reduction in respiratory viral infection with the use of medical/surgical masks***. There were ***no clear differences between the use of medical/surgical masks compared with N95/P2 respirators*** in healthcare workers when used in routine care to reduce respiratory viral infection." (Jefferson et al., 2023)

- "The existing scientific evidences challenge the safety and efficacy of wearing facemask as preventive intervention for COVID-19. The data suggest that both medical and non-medical facemasks are ineffective to block human-to-human transmission of viral and infectious disease such SARS-CoV-2 and COVID-19, supporting against the usage of facemasks. Wearing facemasks has been demonstrated to have substantial adverse physiological and psychological effects. These include hypoxia, hypercapnia, shortness of breath, increased acidity and toxicity, activation of fear and stress response, rise in stress hormones, immunosuppression, fatigue, headaches, decline in cognitive performance, predisposition for viral and infectious illnesses, chronic stress, anxiety and depression. Long-term consequences of wearing facemask can cause health deterioration, developing and progression of chronic diseases and premature death." (Vainshelboim, 2021) [**NOTE**: currently listed by Retraction Watch as Retracted/Withdrawn – see below for additional detail).

    - One of the reasons given was "The manuscript misquotes and selectively cites published papers. References #16, 17, 25 and 26 are all misquoted." This potentially relates to the following statements in the manuscript:

        "The physical properties of medical and non-medical facemasks suggest that facemasks are ineffective to block viral particles due to their difference in scales [16,17,25]. According to the current knowledge, the virus SARS-CoV-2 has a diameter of 60 nm to 140 nm [nanometers (billionth of a meter)] [16,17], while medical and non-medical facemasks' thread diameter

> ranges from 55 µm to 440 µm [micrometers (one millionth of a meter), which is more than 1000 times larger [25].]"
>
> "Among asymptomatic individuals, there was no droplets or aerosols coronavirus detected from any participant with or without the mask, suggesting that asymptomatic individuals do not transmit or infect other people [26]."

[**NOTE**: The author should have been given an opportunity to respond and clarify their statements and ensure the accuracy of their citations, in addition to the other comments supposedly justifying the retraction. Sadly, citation of wrong source is not an uncommon error in scientific papers. Having said that, here are some potential quotes from those papers that may have been interpreted as potentially implying that the masks are ineffective – note that while the words mask or viral particle size may not occur in the same paper, these papers provide information that can assist in making the conclusion pertaining to the potential efficacy of masks. The reader is asked to make their own judgment based on, but not limited to the information below:

- Regarding the reference to asymptomatic spread, from my analysis Reference [26] does not seem to address this. Therefore, if this is the case this would be an error. However as documented elsewhere in this document other citations are available that address this e.g., Acharya et al. (2021)]
- Reference [16] (Wiersinga et al., 2020)
  - citing (Chia et al., 2020) states "(eg, coughing) or the detection of nucleic acid in the air does not mean that small airborne particles are infectious".
  - citing (Goldsmith et al., 2004)states "SARS-CoV-2 has a diameter of 60 nm to 140 nm and distinctive spikes, ranging from 9 nm to 12 nm, giving the virions the appearance of a solar corona
  - states "Aerosol spread may occur, but the role of aerosol spread in humans remains unclear."
- Reference [17] states "…Diameter varied from about 60 to 140 nm." (Zhu et al., 2020)
- Reference [25] (Konda et al., 2020b)
  - states "…Although the filtration efficiencies for various fabrics when a single layer was used ranged from 5 to 80% and 5 to 95% for particle sizes of <300 nm and >300 nm, respectively…"
  - the correction that was uploaded for this paper (Konda et al., 2020a), in Table S2 refers to a thread diameter ranging from 55 µm to 440 µm. Thread diameter has been reported to be of significance in particle penetration (Chattopadhyay et al., 2015;Zangmeister et al., 2020)
- Reference [26], in table 1b shows a non-significant difference detection of coronavirus in the section of the table addressing "Droplet particles >5µm" (Leung et al., 2020)

- "Conclusions: "There is currently no evidence from RCTs demonstrating that the use of cloth or medical masks prevents the transmission of SARSCoV-2 in the community setting" (Chetty et al., 2021)
- Despite the common sense evidence pertaining to masks, as I have indicated previously, papers that seek to minimize or potentially discredit the lack of real impact of masks in real life continue to be published [truly, there is nothing wrong with debate or disagreements – if it allows for a bidirectional flow of arguments and is an effort to seek the truth, but that has not been the case]. Kollepara et al. (2021) state:
  - "We determined that the studies that did not find masks to be effective were under-powered to such an extent that even if masks were 100% effective, they still would have been unlikely to find a statistically significant result" [**NOTE**: the sample of studies considered is taken from a "rapid systematic review" published in 2020 (Brainard et al., 2020)]
  - Authors admit that "…even when a mask does not prevent infection, it **may** reduce the severity of symptoms and the chance of long-term health damage or death". This statement (and others) however, is very typical of the current myopic focus that has been characteristic of COVID-19. It ignores the reality of (1) the low mortality/morbidity of the disease and (2) the negative consequences including, but not limited to, the neurobiological, psychosocial, and physiological consequences [i.e., the bigger picture of human behavior] and (3) ignores, among other information, the CDC's own findings of minimal reduction in spread with mask mandates (Guy et al., 2021).
  - The only mention of "psycho-social" impact is the following: "We note that psycho-social effects can reinforce the effect of prevention. The more individuals who wear masks, the less stigma that is associated with wearing them, which may make it more likely for others including those who are infectious (whether symptomatic, pre-symptomatic, or asymptomatic) to wear masks". This statement ignores the reality of the discrimination/segregation/violence[19,20,21,22,23,24,25,26,27,28,29] that has taken place in society and the impact of such measures.
- Particles of various common odors (e.g., cigarette smoke) that can still be smelt through the mask, are generally comparable or larger than what has been described for SARS-CoV-2 (Anderson et al., 1989;Gowadia et al., 2009;Alderman and Ingebrethsen, 2011)
- "Overall, masks ***may*** be effective in interrupting or reducing the spread of respiratory viruses. However, the study conclusions on the ***effectiveness of N95 respirators over medical masks are contradictory***, especially for healthcare workers, and high-quality design ***evidence for mask use***

[19] https://www.washingtonpost.com/nation/2020/07/18/covid-pandemic-store-clerk-north-carolina/
[20] https://www.sierra-view.com/press-room/2022/january/no-mask-no-entry-covid-19-update-sierra-view-med/
[21] https://nypost.com/2020/10/05/bus-passenger-kicks-girl-in-the-face-for-not-wearing-face-mask/
[22] https://www.washingtonexaminer.com/news/disabled-veteran-mask-coronavirus-video
[23] https://dailycaller.com/2021/09/16/american-airline-video-viral-maskless-toddler-asthma-attack/
[24] https://www.youtube.com/watch?v=MuBYNvJ44OE
[25] https://www.foxnews.com/us/spirit-airlines-flight-deplaned-after-mask-incident
[26] https://www.miamiherald.com/news/state/florida/article247666955.html
[27] https://www.washingtonexaminer.com/news/texas-masks-mother-pregnant-escorted-mass
[28] https://www.theepochtimes.com/mkt_app/philadelphia-school-district-apologizes-for-teacher-taping-mask-to-students-face_4225237.html
[29] https://www.theepochtimes.com/southwest-airlines-sued-for-ejecting-woman-who-removed-mask-to-drink-water_4222676.html

by a special population (such as students and company employees) ***is rare***, and this requires further research. In addition, it is noteworthy that a few ***adverse effects of wearing masks have been systematically reported*** in existing high-quality design evidence…Finally, in view of the current research, ***cloth mask reuse may aggravate the spread of respiratory infection***, which needs to be further evaluated." (Li et al., 2021)

- "Fourteen studies were included in this study. One preclinical and 1 observational cohort clinical study found significant benefit of masks in limiting SARS-CoV-2 transmission. Eleven RCTs in a meta-analysis studying other respiratory illnesses found no significant benefit of masks (+/-hand hygiene) for influenza-like-illness symptoms nor laboratory confirmed viruses. One RCT found a significant benefit of surgical masks compared with cloth masks. CONCLUSION: There is limited available preclinical and clinical evidence for face mask benefit in SARS-CoV-2. RCT evidence for other respiratory viral illnesses shows ***no significant benefit of masks in limiting transmission*** but is of poor quality and not SARS-CoV-2 specific." (Nanda et al., 2021) [**NOTE:** it appears from various comments by the authors in the paper that the reference to "poor quality" refers to minimal control of the many variables that impact mask wearing. However, if this is the case, this does not make the studies and their findings "poor" in quality but rather realistic, given the reality of human interaction – i.e., humans are not meant to be like experimental animals, isolated in a cage and living under controlled conditions!]

- "We were unable to detect a reduction in per-population daily mortality, hospital bed, ICU bed, or ventilator occupancy attributable to the implementation of a mask order" (Schauer et al., 2021b)

    - Study also states that "To date, limited published data evaluating the effects of public mask wear on COVID-19 incidence demonstrate a significant (Cheng et al., 2020;Lyu and Wehby, 2020), beneficial effect. These studies, however, restricted their analysis to publicly reported COVID-19 infection rates without an evaluation of corresponding hospital resource utilization."

- A review article (MacIntyre and Chughtai, 2015) comparing the outcomes of several studies addressing facemask wearing in healthcare and community settings: Table 1 in the paper summarizes the indications for the use of masks and respirators for selected infectious diseases in Healthcare settings and Community settings. While the indications for both Low risk and High risk situations in **Healthcare settings** seem to overall recommend some sort of face covering, this is not the case for the **community setting**, where the recommendations in all cases of Low risk (defined as "home, non-crowded settings") is that masks are **NOT** recommended. Masks were recommended for High risk settings (defined as: "crowded settings (such as public transport), pre-existing illness, pregnancy, older age (pandemic influenza), contact with human remains or infected animals (Ebola virus)") for Ebola and Pandemic influenza. Please note that the recommendations are generally based on CDC and WHO recommendations that, at this point, for various reasons indicated throughout this document, cannot be considered and have not proven themselves as reliable and objective sources for making health-related recommendations.

- "We conclude that the protection provided by surgical masks may be insufficient in environments containing potentially hazardous submicrometer-sized aerosols." (Weber et al., 1993) [**NOTE:** Literature related to COVID-19 seems to indicate potential presence of both large (larger than 5-10μm) and small particle size (<5μm). However, a **particle size of <5μm appears to predominate for pathogens** (Fennelly, 2020;Lee, 2020). Additionally, other literature reports sizes as low as **80-200nm** (Masters, 2006). Pore sizes for cloth masks are reported to be in the range of 80-500μm

(Neupane et al., 2019). N95 masks are claimed to protect against particles larger than 300nm (Ju et al., 2021).

- Due to improper wearing of masks (Burgess and Horii, 2012;Konda et al., 2020b).
- Reduced protection from viruses → the longer the mask is worn and due to increased humidity (MacIntyre et al., 2015;Lazzarino et al., 2020)
- "The use of surgical facemasks is ubiquitous in surgical practice. Facemasks have long been thought to confer protection to the patient from wound infection and contamination from the operating surgeon and other members of the surgical staff...In light of current NHS budget constraints and cost-cutting strategies, we examined the evidence base behind the use of surgical facemasks. Examination of the literature revealed much of the published work on the matter to be quite dated and often studies had poorly elucidated methodologies. As a result, we recommend caution in extrapolating their findings to contemporary surgical practice. ***However, overall there is a lack of substantial evidence to support claims that facemasks protect either patient or surgeon from infectious contamination***." (Da Zhou et al., 2015)
- "Face mask use in health care workers has not been demonstrated to provide benefit in terms of cold symptoms or getting colds." (Jacobs et al., 2009)
- "In this community-based, randomized controlled trial conducted in a setting where mask wearing was uncommon and was not among other recommended public health measures related to COVID-19, a recommendation to wear a surgical mask when outside the home among others did not reduce, at conventional levels of statistical significance, incident SARS-CoV-2 infection compared with no mask recommendation." (Bundgaard et al., 2021)
- Xiao et al. (2020)
  - "The evidence from RCTs [randomized controlled trials] suggested that the use of face masks either by infected persons or by uninfected persons does not have a substantial effect on influenza transmission."
  - "Two studies in university settings assessed the effectiveness of face masks for primary protection by monitoring the incidence of laboratory-confirmed influenza among student hall residents for 5 months(Aiello et al., 2010;Aiello et al., 2012). The overall reduction in ILI or laboratory-confirmed influenza cases in the face mask group was not significant in either studies (Aiello et al., 2010;Aiello et al., 2012)."
- MacIntyre et al. (2015)
  - "Cloth masks also had significantly higher rates of ILI [influenza-like illness] compared with the control arm."
  - "Penetration of cloth masks by particles was almost 97% and medical masks 44%."
  - "…and the results caution against the use of cloth masks…Moisture retention, reuse of cloth masks and poor filtration may result in increased risk of infection…as a precautionary measure, cloth masks should not be recommended for HCWs [healthcare workers]…"
- "Meta-analyses suggest that regular hand hygiene provided a significant protective effect (OR=0.62; 95% CI 0.52-0.73; I^2=0%), and ***facemask use provided a non-significant protective***

effect (OR=0.53; 95% CI 0.16-1.71; I^2=48%) against 2009 pandemic influenza infection." (Saunders-Hastings et al., 2017)

- Example of some papers with potential problems in study design or interpretation:
  - Aiello et al. (2012)
    - "Our findings show a significant reduction in the rate of ILI [influenza-like illness] among participants randomized to the face mask and hand hygiene intervention during the latter half of the study period, ranging from 48% to 75% when compared to the control group. We also observed a substantial (43%) reduction in the incidence of influenza infection in the face mask and hand hygiene group compared to the control, but this estimate was not statistically significant."
    - "There were no substantial reductions in ILI [influenza-like illness] or laboratory-confirmed influenza in the face mask only group compared to the control."
    - **Summary of Conclusions: Masks on their own do not help; masks and hand sanitizer reduced transmission, however, results are ambiguous as to whether the reduction was statistically significant. Study flawed (despite CDC involvement in design) – no hand hygiene alone group, therefore it cannot be determined whether the reduced transmission was simply due to hand hygiene alone, given that the mask-alone group showed no reduction.**
  - MacIntyre and Chughtai (2020)
    - "The study suggests that community mask use by well people could be beneficial, particularly for COVID-19, where transmission may be pre-symptomatic. The studies of masks as source control also suggest a benefit, and may be important during the COVID-19 pandemic in universal community face mask use as well as in health care settings."
    - **Summary of Conclusions: Paper flawed – Conclusion in abstract (see above) is not supported by the information in the paper; potential significant conflict of interest; significant conflicting conclusions from papers reviewed; unsubstantiated/unsupported claims and extrapolations/projections; misrepresents the information from some of the papers reviewed (e.g. Aiello et al., 2012); contradicts their own previous work** (MacIntyre et al., 2015)**.**
  - Abaluck et al. (2021)
    - 7.9% (27,116) reported COVID-like symptoms (from 342,126); From the 7.9%, 40.3% (10,592) consented to have blood collected.
    - **The following statements and the findings indicating a very minimal symptomatic seropositivity (i.e., displayed both symptoms and were seropositive for the antibody) further questions the significance of the findings.**
      - "Our trial is therefore designed to track the fraction of individuals who are *both* symptomatic and seropositive."
      - "Not all symptomatic seroprevalence is necessarily a result of infections occurring during our intervention; individuals may have pre-existing

infections and then become symptomatic (perhaps caused by an infection other than SARS-CoV-2)."

- Relative to WHO-Defined COVID-19 Symptoms (**Figure 2**): "We find clear evidence that the intervention reduced symptoms: we estimate a reduction of **11.9%** (adjusted prevalence ratio 0.88 [0.83,0.93]; control group prevalence = 8.59%; treatment group prevalence = 7.60%)...In this sample we continue to find an effect overall and an effect for surgical masks, but see no effect for cloth masks."

- Relative to Symptomatic Seroprevalence by Age (**Figure 3**): "In surgical mask villages, we observe a 23.0% decline in symptomatic seroprevalence among individuals aged 50-60 (adjusted prevalence ratio of 0.77 [0.59,0.95]) and a 34.7% decline among individuals aged 60+ (p = 0.001) (adjusted prevalence ratio of 0.65 [0.46, 0.85])."

- "Our estimates suggest that mask-wearing increased by 28.8 percentage points, corresponding to an estimated 51,347 additional adults wearing masks in intervention villages, and this effect was persistent even after active mask promotion was discontinued. The intervention led to a **9.3%** reduction **[Figure 1, p=0.043]** in symptomatic SARS-CoV-2 seroprevalence (which corresponds to a 103 fewer symptomatic seropositives) and an **11.9%** reduction **[Figure 2, p=0.000],** in the prevalence of COVID-like symptoms, corresponding to 1,587 fewer people reporting these."

    - **Concerns:** **NOT addressed** explicitly in this paragraph is that there was NO statistically significant decrease in 40-50 year old and <40 year old subjects. These results need, like other papers, to be interpreted in the context of other evidence, including the counter evidence that exists in relation to mask wearing, in addition to the other impacts (e.g. psychological, physiological, etc.). Thus, taking the information mentioned above into consideration, in addition to other scientific literature including, but not limited to, the Bundgaard study (Bundgaard et al., 2021), the fact that mask wearing in those <50 years old was not significantly different highlights that it is not the masks that are related to symptomatic seroprevalence (or else common sense dictates that all ages should have demonstrated significant decreases) but additional factors including, but not limited to comorbidities.

- **Other Concerns:**

    - **Potential for coercion?**

        - **Governmental: "*The sample excludes 4 villages because of lack of government cooperation to perform the intervention.*"**

        - **Questionable appropriate consent for participation of villagers:** Consent is only addressed in regards to blood collection.

            - **"*…observations were not limited to adults from enrolled households.*"**

- **"*After 5 weeks of surveillance in wave 1, it was clarified that surveillance staff should only record mask-wearing behavior of people who appear to be 18 years or older. Prior to this, some surveyors included children (especially older children) in their counts.*"**

- **Potential impact of financial incentives:** Despite all claims, concerns remain in terms of the impact of financial incentives (in a population that is extremely poor – Could this study have been carried out in a developed country?) potentially influencing the results.

4.1 Inefficacy of mask mandates

- "Most countries have implemented recommendations or mandates regarding the use of masks in public spaces…Data from 35 European countries on morbidity, mortality, and mask usage during a six-month period were analysed and crossed. Mask usage was more homogeneous in Eastern Europe than in Western European countries...[The]findings indicate that countries with high levels of mask compliance did not perform better than those with low mask usage." (Spira, 2022)

- (Fogen, 2022)

  - "The most important finding from this study is that contrary to the accepted thought that fewer people are dying because infection rates are reduced by masks, this was not the case. ***Results from this study strongly suggest that mask mandates actually caused about 1.5 times the number of deaths or ~50% more deaths compared to no mask mandates***."

  - "The ***mask mandates themselves have increased the CFR [Case Fatality Rate] by 1.85 / 1.58 or by 85% / 58% in counties with mask mandates. It was also found that almost all of these additional deaths were attributed solely to COVID-19***. Therefore, this number is most likely ***underestimated*** and depends to a large extent on the percentage of people who tested positive for SARS-CoV-2 but did not die with COVID-19 as the underlying cause of death."

- "We did not observe association between mask mandates or use and reduced COVID-19 spread in US states." (Guerra and Guerra, 2021)

- Although a CDC study (Guy et al., 2021) concluded that "Mask mandates were associated with statistically significant decreases in county-level daily COVID-19 case and death growth rates within 20 days of implementation. Allowing on-premises restaurant dining was associated with increases in county-level case and death growth rates within 41–80 days after reopening.", the maximum reduction in cases was reported at 81-100 days after implementation of mask mandates and amounted to **1.8%**. The maximum increase in cases relative to the day states allowed on-premises dining was **1.1%**.

4.2 Potential for significant impact on society

- "…mask mandates involve a tradeoff with personal freedom, so such policies should be pursued only if the threat is substantial and mitigation of spread cannot be achieved through other means." (Czypionka et al., 2021)

4.3 Adverse physiological and neurological consequences

- Given the significance of the findings of this paper it is worth including the *Results* and *Discussion* part of the abstract of this paper: "***Fresh air has around 0.04% CO_2***, while ***wearing***

masks more than 5 min bears a possible chronic exposure to carbon dioxide of ***1.41% to 3.2%*** of the inhaled air. Although the buildup is usually within the short-term exposure limits, long-term exceedances and consequences must be considered due to experimental data. US Navy toxicity experts set the exposure limits for submarines carrying a female crew to 0.8% CO_2 based on animal studies which indicated an increased risk for stillbirths. Additionally, mammals who were chronically exposed to 0.3% CO_2 the experimental data demonstrate a teratogenicity with ***irreversible neuron damage in the offspring***, ***reduced spatial learning*** caused by brainstem neuron apoptosis and ***reduced circulating levels of the insulin-like growth factor-1***. With significant impact on three readout parameters (morphological, functional, marker) this chronic 0.3% CO_2 exposure has to be defined as being toxic. Additional data exists on the exposure of chronic 0.3% CO_2 in adolescent mammals causing ***neuron destruction***, which includes ***less activity, increased anxiety and impaired learning and memory***. There is also data indicating ***testicular toxicity*** in adolescents at CO_2 inhalation concentrations above 0.5%. Discussion: There is a possible negative impact risk by imposing extended mask mandates especially for vulnerable subgroups. ***Circumstantial evidence exists that extended mask use may be related to current observations of stillbirths and to reduced verbal motor and overall cognitive performance in children born during the pandemic. A need exists to reconsider mask mandates.***"(Kisielinski et al., 2023)

- "VOCs are emitted from masks, and mask-wearers are exposed to these by inhalation…In KF94 masks,…[VOC's]…were detected at concentrations 22.9–147 times higher than those found in masks made from other materials, such as cotton and other functional fabrics. In addition, in KF94 masks, the total VOC (TVOC) released amounted to…about 14 times more than that released by the cotton masks…In some KF94 masks, TVOC concentration reached…[levels]…, posing a risk to human health (based on indoor air quality guidelines established by the German Environment Agency). Notably, 30 min after KF94 masks were removed from their packaging, TVOC concentrations decreased by about 80% from their initial levels…***When the temperature*** of the KF94 masks was ***raised to 40 ºC, TVOC concentrations increased by 119–299%***... [**NOTE**: Interestingly the authors conclude that "Based on our findings, we suggest that prior to wearing a KF94 mask, each product should be opened and not worn for at least 30 min, thereby reducing TVOC concentrations to levels that will not impair human health", **ignoring the fact** that they state that when the temperature was raised to 40C the TVOC concentrations increased by 119-299%!!!] (Ryu and Kim, 2023)

- George et al. (2022)
  - "The current study reported ***excessive sweating*** (86.4%), ***difficulty in reading*** (85%), ***dry mouth*** (80.7%), and ***breathing difficulty*** (74.1%) as the most common problem associated with PPE use."
  - "In addition to this, adverse reactions like ***headache***, ***restlessness***, and ***dizziness*** were reported by 70.1%, 64.5%, and 50.8%."
  - "***Indentation and pain on the back of the ears*** (76.1%), ***skin soaking*** (67.1%), and ***excessive sweating*** (76.1%) were identified as the most common problems related to N-95 masks, gloves, and coverall use."
  - **Conclusion** "The current study revealed a ***higher incidence of various health problems with PPE use*** among health care workers."
- Ferrari et al. (2021) – salient points from the abstract:

- "Visual recognition of facial expression modulates our social interactions."
- "Compelling experimental evidence indicates that face conveys plenty of information that are fundamental for humans to interact. These are encoded at neural level in specific cortical and subcortical brain regions through activity- and experience-dependent synaptic plasticity processes."
- "The current pandemic, due to the spread of SARS-CoV-2 infection, is causing relevant social and psychological detrimental effects."
- "…***by impacting social interaction, facemasks might impair the neural responses to recognition of facial cues that are overall critical to our behaviors***"
- "…***the lack of salient stimuli might impact the ability to retain and consolidate learning and memory phenomena underlying face recognition***."

- "Although, ***significant increase in CO2 concentrations are noted with routinely used face-masks***, the levels still remain within the NIOSH [National Institute for Occupational Safety and Health] limits for short-term use. Therefore, there should not be a concern in their regular day-to-day use for healthcare providers. ***The clinical implications of elevated CO2 levels with long-term use of face masks needs further studies***." (Rhee et al., 2021)

- "Most of the complaints reported by children [this is a reference to complaints addressed in the manuscript by Schwarz et al. (2021) and included "irritability (60%), headache (53%), difficulty concentrating (50%), less happiness (49%), reluctance to go to school/kindergarten (44%), malaise (42%) impaired learning (38%) and drowsiness or fatigue (37%)"] can be understood as consequences of elevated carbon dioxide levels in inhaled air." (Walach et al., 2021b) [**NOTE**: currently listed by Retraction Watch as Retracted/Withdrawn]

- "We objectified evaluation evidenced changes in respiratory physiology of mask wearers with significant correlation of O2 drop and fatigue ($p < 0.05$), a clustered co-occurrence of respiratory impairment and O2 drop (67%), N95 mask and CO2 rise (82%), N95 mask and O2 drop (72%), N95 mask and headache (60%), respiratory impairment and temperature rise (88%), but also temperature rise and moisture (100%) under the masks. Extended mask-wearing by the general population could lead to relevant effects and consequences in many medical fields." (Kisielinski et al., 2021)

- Other literature addressing significant changes in skin characteristics on the part of the face covered by a mask including: in skin temperature, redness, hydration and secretions (Park et al., 2021) in addition to eye dryness, acne, skin breakdown and nosebleeds, headaches and bad odors (Shenal et al., 2012;Kisielinski et al., 2021;Kumar and Singh, 2021)

- "Breathing through N95 mask materials have been shown to impede gaseous exchange and impose an additional workload on the metabolic system of pregnant healthcare workers, and this needs to be taken into consideration in guidelines for respirator use." (Tong et al., 2015)

- "Ventilation, cardiopulmonary exercise capacity and comfort are reduced by surgical masks and highly impaired by FFP2/N95 face masks in healthy individuals." (Fikenzer et al., 2020)

- "This study including 19504 blood donors spanning over one and a half year shows that prolonged use of face mask by blood donors may lead to intermittent hypoxia and consequent increase in hemoglobin mass." (Setia et al., 2021)

- "We discuss how N95 and surgical facemasks induce significantly different temperature and humidity in the microclimates of the facemasks, which have profound influences on heart rate and thermal stress and subjective perception of discomfort." (Li et al., 2005)

- "Wearing an N95 mask for 4 hours during HD [hemodialysis] significantly reduced PaO2 and increased respiratory adverse effects in ESRD [end-stage renal disease] patients" [Note of consideration: this report pertains to data from already compromised patients] (Kao et al., 2004)

4.4 Penetration of viral particles

- "Penetration of cloth masks by particles was almost 97% and medical masks 44%." (MacIntyre et al., 2015)

- "By intention-to-treat analysis, facemask use did not seem to be effective against laboratory-confirmed viral respiratory infections [stats] nor against clinical respiratory infection [stats]. Similarly, in a per-protocol analysis, facemask use did not seem to be effective against laboratory-confirmed viral respiratory infections [stats] nor against clinical respiratory infection [stats]…. This trial was unable to provide conclusive evidence on facemask efficacy against viral respiratory infections most likely due to poor adherence to protocol. **[however, without justification in article, conclude that "likely due to poor adherence"]** (Alfelali et al., 2020)

4.5 Increased spread

- The potential for increased spread of the virus due to its presence on the outer surface of masks or due to increased touching of the eyes (Isaacs et al., 2020;Lazzarino et al., 2020).

4.6 Substantial psychosocial impact

- The physiological and psychological impact are not independent of each other and the former may potentially impact the latter (Roberge et al., 2012;Scheid et al., 2020). The psychosocial impact of masks include:

  - Their potential to interfere with communication, appropriate care and well-being of patients (Isaacs et al., 2020;Marler and Ditton, 2021).

  - Fatigue, anxiety, or claustrophobia, impaired cognition (Shenal et al., 2012;Kumar and Singh, 2021).

  - Confusion in the interpretation of emotions due to interference with the recognition of facial expressions, and impediment in interpersonal relationships irrespective of whether there are pre-existing psychopathologies or not (Critchley et al., 2000;Carbon, 2020).

  - The potential to interfere with the appropriate detection of natural chemicals (pheromones) that are potentially involved in the bonding involved in natural human relationships (Savic et al., 2009).

- "Those who wore their masks all of the time had higher mean IES-R [Impact of Events Scale-Revised] scores…and higher mean CES-D [Center for Epidemiologic Studies—Depression Scale]…" [**NOTE**: The reference to higher IES scores in relation to mask wearing is indicative of higher levels of PTSD symptoms; CES-D addresses depressive symptoms] (Hawryluck et al., 2004)

5. Lockdowns, Isolation & Social Distancing

Summary:

- The science, including our knowledge of the immune system, in addition to the impact of lockdowns previously observed and also observed in current studies, indicates no justification for lockdowns, making them a significant violation of human rights.

- "An analysis of each of these three groups [lockdown stringency index studies, shelter-in-place-order (SIPO) studies, and specific NPI (non-pharmaceutical intervention) studies] support the conclusion that ***lockdowns have had little to no effect on COVID-19 mortality***. More specifically, stringency index studies find that ***lockdowns*** in Europe and the United States ***only reduced COVID-19 mortality by 0.2% on average***. ***SIPOs were also ineffective, only reducing COVID-19 mortality by 2.9% on average***. Specific NPI studies also find no broad-based evidence of noticeable effects on COVID-19 mortality (Herby et al., 2022).

- "Social connectedness and resilience are protective against loneliness and have been adversely affected by the COVID pandemic…**Conclusions**: Loneliness was commonly reported among older adults during the COVID pandemic. Loneliness was negatively correlated with social connectedness and resilience. Compared to cognitively intact counterparts, those with cognitive impairment reported significantly lower social connectedness." (Padala et al., 2022) [**Interpretation**: isolation potentially makes loneliness worse in those already suffering from a psychopathology (in this case cognitive impairment)]

- "**Conclusion**: Our findings indicate that ***quarantine and shifting to distance learning*** during COVID-19 pandemic have ***negatively affected the anxiety scores*** of the university students." (Alqudah et al., 2021)

- "We are social creatures. Social interplay and cooperation have fuelled the rapid ascent of human culture and civilization. However, social species struggle when forced to live in isolation. The expansion of loneliness has accelerated in the past decade…Such efforts [e.g., UK 'Campaign to End Loneliness'] speak to the growing public recognition and political will to confront this evolving societal challenge. These concerns are likely to be exacerbated if there are prolonged periods of social isolation imposed by national policy responses to extraordinary crises such as COVID-19. ***Social deprivation in childhood and in late adulthood both impact on neurobiological architecture and functional organization***. ***The ensuing loss of social and cognitive capacity has significant public health consequences***. ***On the individual scale, this can result in people becoming less socially engaged and, hence, at greater risk of developing antisocial behavior***. The result is likely to be a drain on the public purse, either in terms of caring for individuals in psychological and physical decline or of the incarceration of disorderly individuals. If social isolation during development happens on a sufficiently large scale, it is likely to have significant consequences for community stability and social cohesion." (Bzdok and Dunbar, 2020)

- Raony et al. (2020)
    - "In the CNS the virus can lead to increase in cytokines levels (e.g., IL-2, IL-6, TNF-α, IL-1β, INF-γ, and IL-10) due to its local or peripheral actions. Increased cytokine levels are associated to neuronal death, synaptic plasticity impairments, dysfunction in the neurotransmitter metabolism

and in the hypothalamic-pituitary-adrenocortical (HPA) axis. ***Likewise, social isolation can also lead to these neuroendocrine-immune disturbances***, for instance: increase in cytokine levels, changes in neurotransmitter systems, HPA axis hyperactivity and disturbances in neuroplasticity-related signaling pathways. Through these common mechanisms, both SARS-CoV-2 infection and social isolation can lead to mental health impairments [e.g., impaired memory, depression, psychoses, anxiety and posttraumatic stress disorder symptoms (PTSD)]."

- "Based on the similarity of SARS-CoV-2 with other coronaviruses, it is conceivable that changes in endocrine and immune response in the periphery or in the central nervous system may be involved in the ***association between SARS-CoV-2 infection and impaired mental health***. ***This is likely to be further enhanced, since millions of people worldwide are isolated in quarantine to minimize the transmission of SARS-CoV-2 and social isolation can also lead to neuroendocrine-immune changes***. Accordingly, we highlight here the hypothesis that neuroendocrine-immune interactions may be involved in negative impacts of SARS-CoV-2 infection and social isolation on psychiatric issues." [**Interpretation**: The isolation and quarantine amplify the potential mental health impact of COVID itself through potentially common mechanisms!]

- "***Children and adolescents are probably more likely to experience high rates of depression and most likely anxiety during and after enforced isolation ends***. This may increase as enforced isolation continues." (Loades et al., 2020)

- ***Increase in child abuse*** as a result of lockdowns, etc. and their consequences:
  - "…the proportion of children reported to the county that received medical evaluations was higher in 2020 compared with in 2019.This suggests that the pandemic was related to an increase in the occurrence of maltreatment serious enough to warrant medical evaluations, or perhaps in the relative number of serious cases identified." (Metcalf et al., 2022)
  - "Income instability such as income reduction and job loss amplified the risk of severe and very severe child physical assaults but protected children from psychological aggression." (Wong et al., 2021)
  - "Job loss during the COVID-19 pandemic is a significant risk factor for child maltreatment."(Lawson et al., 2020)

- "During the COVID-19 outbreak people have encountered an invisible and dark enemy and an experience of impotence. Due to the feelings of frustration and agitation, ***aggression arises with possible transgenerational transmission of trauma and violence***." (Mazza et al., 2020)

- Evidence of the significance of human relationships, clearly impacted by COVID-19 measures, on mental health: "Relationship quality was related to mental health during COVID-19. The prevalence of depressive symptoms increased according to relationship quality from 13% up to 35%. Relationship per se was not associated with better mental health, but the quality of the relationship was essential. ***Compared to no relationship, a good relationship quality was a protective factor whereas a poor relationship quality was a risk factor*** [for bad mental health]" (Pieh et al., 2020)

- Galea et al. (2020)

  - "While these steps ["physical distancing (called in most cases "social distancing") in countries all over the world, resulting in changes in national behavioral patterns and shutdowns of usual day-to-day functioning"] may be critical to mitigate the spread of this disease, they will undoubtedly have consequences for mental health and well-being in both the ***short and long term***. These consequences are of sufficient importance that immediate efforts focused on prevention and direct intervention are needed to address the impact of the outbreak on ***individual and population level mental health***".
  - Additionally, among the potential mental health consequences listed in the paper, which indicates how the consequences of the irrational steps taken were not elusive to science, the authors state: "In the context of the COVID-19 pandemic, it appears likely that there will be ***substantial increases in anxiety and depression***, ***substance use***, ***loneliness***, and ***domestic violence***; and with schools closed, there is a very real possibility of an ***epidemic of child abuse***." – all predictions that have been proven true!!!

- Given the governmental directives to close churches and cooperation of church officials that has taken place over the past 2 years it is interesting to note that "R/S [Religiosity/Spirituality] seem to have an important role on the relief of suffering, having an influence on health outcomes and minimizing the consequences of social isolation. These results highlight ***the importance of public health measures that ensure the continuity of R/S activities during the pandemic*** and the training of healthcare professionals to address these issues." (Lucchetti et al., 2020)

- **Social distancing**: "We found that the evidence base for current guidelines is sparse, and ***the available data do not support the 1- to 2-meter (≈3–6 feet) rule of spatial separation***. Of 10 studies on horizontal droplet distance, 8 showed droplets travel more than 2 meters (≈6 feet), in some cases up to 8 meters (≈26 feet). Several studies of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) support aerosol transmission, and 1 study documented virus at a distance of 4 meters (≈13 feet) from the patient. Moreover, evidence suggests that infections cannot neatly be separated into the dichotomy of droplet versus airborne transmission routes. Available studies also show that ***SARS-CoV-2 can be detected in the air, and remain viable 3 hours after aerosolization***." (Bahl et al., 2020)

- Negative impact of **lockdowns** has been shown
  - "During home confinement, high scores of depression, insomnia, loneliness, and everyday fatigue were observed." (Bartoszek et al., 2020)
  - "…results indicate that it [isolation] alters physical activity and eating behaviours in a ***health compromising direction***." The authors make this statement while at the same time starting the statement with "While isolation is a necessary measure to protect public health…"! (Ammar et al., 2020)
  - Allen (2021)
    - "An examination of over 80 Covid-19 studies reveals that many relied on assumptions that were false, and which tended to over-estimate the benefits and underestimate the costs of lockdown"
    - "the cost/benefit ratio of lockdowns in Canada, in terms of life-years saved, is between 3.6-282 [Interpretation: at best lockdowns made things 3.6 times worse; at worst, 282 times

worse]. That is, it is possible that lockdown will go down as one of the greatest peacetime policy failures in Canada's history."

- Charbonnier et al. (2021)
  - "Depressive symptoms are significantly higher during lockdown periods compared to unlockdown periods. Anxiety symptoms are likewise particularly high during the two lockdowns, but also when the universities reopen. At different times, anxiety and depressive symptoms were positively associated with maladaptive strategies, such as the self-blame and negatively with adaptive strategies, such as the positive reframing"
  - "The trajectory of anxiety, which is elevated even in the absence of lockdown, raises concerns about the long-term effects of the pandemic on these symptoms"
- Gismero-Gonzalez et al. (2020)
  - "Quarantine entails a difficult situation to endure, involving separation from loved ones, loss of liberties, insecurity about possibly getting infected, among others, and of course boredom, which can also have negative effects….It is also associated with a perceived loss of control and the feeling of being trapped…"
  - "…the data indicated an increase in negative affects (e.g., "upset," "afraid," "distressed") and a decrease in positive affects after 8 weeks under lockdown, as well as a general decline in overall mood. The largest increases in negative affects were observed in young adults (18–35 years) and women."
- Brooks et al. (2020)
  - "Quarantine is often an unpleasant experience for those who undergo it. Separation from loved ones, the loss of freedom, uncertainty over disease status, and boredom can, on occasion, create dramatic effects. Suicide has been reported (Barbisch et al., 2015), substantial anger generated, and lawsuits brought[30] following the imposition of quarantine in previous outbreaks."
  - "Most reviewed studies reported ***negative psychological effects including post-traumatic stress symptoms, confusion, and anger. Stressors included longer quarantine duration, infection fears, frustration, boredom, inadequate supplies, inadequate information, financial loss, and stigma.***"
- Reynolds et al. (2008)
  - "Health-care workers (HCW) experienced greater psychological distress, including symptoms of PTSD."
- Hawryluck et al. (2004)
  - "All respondents described a sense of isolation."

[30] http://www.bioethics.net/2014/11/kaci-hickox-public-health-and-the-politics-of-fear/

- "Infection control measures imposed not only the physical discomfort of having to wear a mask but also significantly contributed to the sense of isolation."
- "Our results show that a substantial proportion of quarantined persons are distressed, as evidenced by the proportion that display symptoms of PTSD and depression as measured by validated scales."
- **Stigma:** "Following quarantine, 51% of respondents had experiences that made them feel that people were reacting differently to them…"

- "There are clear linkages between PSI [Perceived Social Isolation] and the ***cardiovascular system, neuroendocrine system, and cognitive functioning***. PSI also leads to ***depression, cognitive decline, and sleep problems***. The mechanisms through which PSI causes these effects are ***neural, hormonal, genetic, emotional, and behavioral***. The effects of PSI on health are both direct and indirect." (Bhatti and Haq, 2017)

6. PCR Testing and Asymptomatic Testing

Summary:

- The cumulative evidence pertaining to the PCR test, including the recent lab alert by the CDC (CDC, 07/21/2021), in addition to our knowledge pertaining to infectious disease, does not support either the use of the PCR test as a reliable test or the concept of asymptomatic testing.

- Corman et al. (2020) – paper claims the RT-PCR protocol to be "validated", as well as being a "robust diagnostic methodology for use in public-health laboratory settings"
- Borger et al. (2020) – addresses numerous issues pertaining to the Corman paper including:
    - Significant methodological issues pertaining to the
        - Probe (a fragment of DNA or RNA **used to detect the presence** of a specific DNA fragment within a sample) and Primer (short strand of DNA or RNA that serves as the **starting point** for DNA synthesis) design[31].
        - Reaction temperature,
        - Number of amplification cycles (Jaafar et al., 2021) → At Ct=35, <3% of cultures are positive.
        - Biomolecular validation
        - Positive & negative controls to confirm/refute specific virus detection
        - Standard Operating Procedure (SOP) not available
        - Consequences of Errors mentioned in the first five points listed → False positive results
    - Additional issues
        - Paper was not peer reviewed
        - Authors – members of the editorial board of the journal
- Cevik et al. (2021)
    - "No study detected live virus beyond day 9 of illness, despite persistently high viral loads."
    - "Our study shows that despite evidence of prolonged SARS-CoV-2 RNA shedding in respiratory and stool samples, viable virus appears to be short-lived. Therefore, ***RNA detection cannot be used to infer infectiousness.***"
- *"Historically people need to realize that even if there is some asymptomatic transmission [of covid-19], in all the history of respiratory-borne viruses of any type, asymptomatic transmission has never been the driver of outbreaks. The driver of outbreaks is always a symptomatic person. Even if there's a rare asymptomatic person that might transmit, an epidemic is not driven by asymptomatic carriers" (Fauci, 2020) (https://www.youtube.com/watch?v=w6koHkBCoNQ&feature=youtu.be&t=2642)*

[31] https://pediaa.com/difference-between-probe-and-primer/#Probe

- "We found some evidence that ***SARS-CoV-2 infection in contacts of people with asymptomatic infection is less likely than in contacts of people with symptomatic infection*** (relative risk 0.35, 95% CI 0.10–1.27)." (Buitrago-Garcia et al., 2020)
- "***Unusually in disease management, a positive test result is the sole criterion for a covid-19 case. Normally, a test is a support for clinical diagnosis, not a substitute***….. It's also unclear to what extent people with no symptoms transmit SARS-CoV-2. The only test for live virus is viral culture. PCR and lateral flow tests do not distinguish live virus. No test of infection or infectiousness is currently available for routine use. ***As things stand, a person who tests positive with any kind of test may or may not have an active infection with live virus, and may or may not be infectious****….., **no study was able to culture live virus from symptomatic participants after the ninth day of illness, despite persistently high viral loads in quantitative PCR diagnostic tests.*****"** (Pollock and Lancaster, 2020)

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7. COVID-19 Vaccines

Summary:

- The cumulative evidence pertaining to COVID-19 including the low infection fatality rate, the questionable efficacy of the vaccines, the VAERS and other data pertaining to reported adverse events, and the presence of proven alternative treatments, in addition to the violations of the established standard protocol for the testing of efficacy and safety of any treatment given to humans, all point to substantial violations of the various established protections of humans in research and outlined first in the Nuremberg Code, and reflect a significant attack on human dignity and human rights.
- The use of the vaccines is questionable for adults for the reasons outlined above. The current evidence indicates that the administration of the vaccines should be contraindicated in pregnant women and younger people.
- Efficacy of vaccines appears to be lower than natural immunity and increases the potential for severe infections from variants relative to those who are unvaccinated.
- The efficacy of the vaccine in preventing spread is questionable given that those vaccinated have been shown to spread the Delta variant.

"Over One Thousand Scientific Studies Prove That the COVID-19 Vaccines Are Dangerous, and All Those Pushing This Agenda Are Committing the Indictable Crime of Gross Misconduct in Public Office" [32]

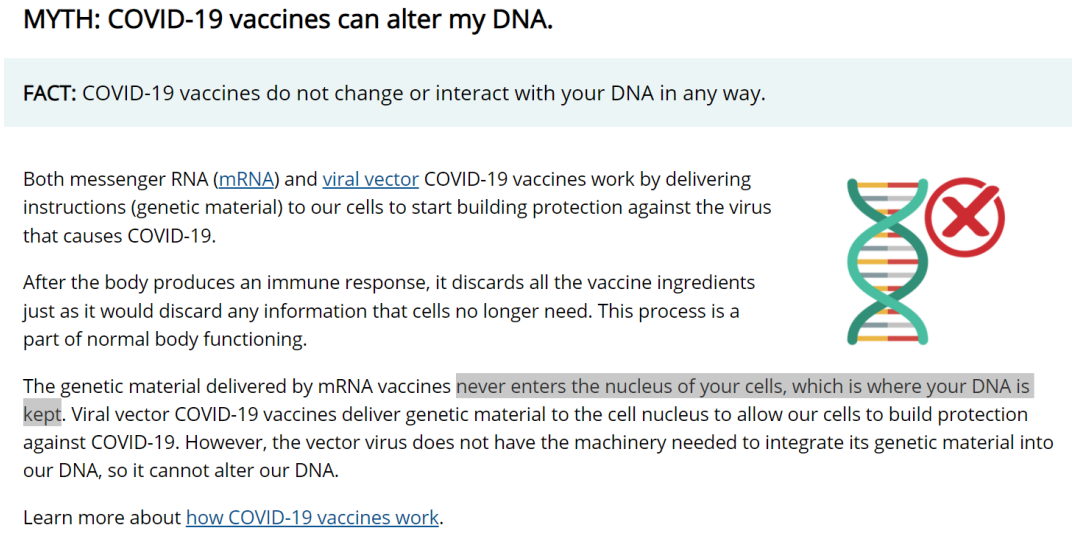
"The statistically significant and overwhelmingly positive causal impact after ***vaccine*** deployment on the dependent variables ***total deaths*** and ***total cases per million*** should be highly worrisome for policy makers. ***They indicate a marked increase in both COVID-19 related cases and death due directly to a vaccine deployment*** that was originally sold to the public as the "key to gain back our freedoms." (Beattie, 2021)

"In this review we first describe the technology underlying these vaccines [COVID-19 vaccines] in detail. We then review both components of and the intended biological response to these vaccines, including production of the spike protein itself, and ***their potential relationship to a wide range of both acute and long-term induced pathologies, such as blood disorders, neurodegenerative diseases and autoimmune diseases***. Among these potential induced pathologies, we discuss the relevance of prion-protein-related amino acid sequences within the spike protein. We also present a ***brief review of studies supporting the potential for spike protein "shedding", transmission of the protein from a vaccinated to an unvaccinated person, resulting in symptoms induced in the latter***. We finish by addressing a common point of debate, namely, whether or not these vaccines could modify the DNA of those receiving the vaccination. While there are no studies demonstrating definitively that this is happening, ***we provide a plausible scenario, supported by previously established pathways for transformation and transport of genetic material, whereby injected mRNA could ultimately be incorporated into germ cell DNA for transgenerational transmission.***" (Seneff and Nigh, 2021) [**Comment**: These authors address many concerns that are now coming to light and addressed in other parts of this document. The authors also conclude with a number of important, legitimate recommendations for "research and surveillance practices". Please see article for further details]

[32] https://www.saveusnow.org.uk/covid-vaccine-scientific-proof-lethal/

7.1 Gene therapy?

- Aldén et al. (2022)
  - While the CDC claims that the mRNA "vaccines" never enter the nucleus (see Figure 1 and CDC website[33]), a new *in vitro* study indicates otherwise. The study reports that the results indicate "…a ***fast up-take*** of BNT162b2 [Pfizer/BioNTech] ***into human liver cell line*** Huh7, leading to changes in LINE-1 expression and distribution. We also show that ***BNT162b2 mRNA is reverse transcribed intracellularly into DNA in as fast as 6 h*** upon BNT162b2 exposure."
  - The authors also indicate the necessity for further investigation in regard to the potential relationship to an **autoimmune response**. They state that "It is worth investigating if the liver cells also present the vaccine-derived SARS-CoV-2 spike protein, which could potentially make the liver cells targets for previously primed spike protein reactive cytotoxic T cells. There has been case reports on individuals who developed autoimmune hepatitis (Bril et al., 2021) after BNT162b2 vaccination."



MYTH: COVID-19 vaccines can alter my DNA.

FACT: COVID-19 vaccines do not change or interact with your DNA in any way.

Both messenger RNA (mRNA) and viral vector COVID-19 vaccines work by delivering instructions (genetic material) to our cells to start building protection against the virus that causes COVID-19.

After the body produces an immune response, it discards all the vaccine ingredients just as it would discard any information that cells no longer need. This process is a part of normal body functioning.

The genetic material delivered by mRNA vaccines never enters the nucleus of your cells, which is where your DNA is kept. Viral vector COVID-19 vaccines deliver genetic material to the cell nucleus to allow our cells to build protection against COVID-19. However, the vector virus does not have the machinery needed to integrate its genetic material into our DNA, so it cannot alter our DNA.

Learn more about how COVID-19 vaccines work.

Figure 4: Screen capture from https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html#print (accessed 03/01/2022)

- "***There's some, ultimately the mRNA vaccines are an example for that cellular gene therapy. I always like to say if we had surveyed two years ago, in the public, would you be willing to take gene or cell therapy and inject it into your body, we would have probably had a 95% refusal rate.***" Stefan Oelrich, member of the Board of Management of Bayer and head of the Pharmaceuticals Division, The World Health Summit, October 2021.[34]
- U.S. Food and Drug Administration (2020)
  - Table 1, Pg14: lists RNA among other "Commonly Used Gene Therapy Products/Vectors"

[33] https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html#print
[34] https://youtu.be/IKBmVwuv0Qc

- **"Human gene therapy:** Human gene therapy seeks to modify or manipulate the expression of a gene or to alter the biological properties of living cells for therapeutic use." Pg28
- **Interpretation:** by these standards the mRNA vaccines **ARE** gene therapy

- Föhse et al. (2021)
  - "In conclusion, the mRNA BNT162b2 vaccine induces complex functional ***reprogramming of innate immune responses***, which should be considered in the development and use of this new class of vaccines."
- Zhang et al. (2021b)
  - "We show here that SARS-CoV-2 RNA can be ***reverse-transcribed and integrated into the genome*** of the infected cell and be ***expressed***…[and]…***detected*** in patient-derived tissues."
- Also see under Antibody-Dependent Enhancement (ADE) - below

7.2 Failure to properly investigate the vaccines

- The lack of trust in the FDA as an authority, in relation to the vaccines, is not unfounded. There are various decisions taken by the FDA that are outrightly unsafe. Some examples include, the FDA's approval of an antipsychotic, brexpiprazole, that "failed to show a meaningful benefit but raised the risk of death" (Whitaker, 2023), mifepristone (Gary and Harrison, 2006;Skop, 2019;Cirucci et al., 2021).
- "Revelations of poor practices at a contract research company helping to carry out Pfizer's pivotal covid-19 vaccine trial raise questions about data integrity and regulatory oversight." (Thacker, 2021)
- "None of the trials currently under way are designed to detect a reduction in any serious outcome such as hospital admissions, use of intensive care, or deaths. Nor are the vaccines being studied to determine whether they can interrupt transmission of the virus" (Doshi, 2020;2021)
- Additionally see Kostoff et al. (2021) under "**Children, adolescents and vaccinations**" below.

7.3 Lack of transparency, potential conflicts of interest, corruption

- There are numerous situations that warrant consideration of corruption. The following highlight some of the issues/realities society is facing:
  - The FDA's intentional dragging of the release of documents/data submitted by Pfizer to the public till 2076 (500 pages per month)– data/information that directly pertains to matters that directly impact public health (see Public Health and Medical Professionals for Transparency vs Food and Drug Administration, 11/15/21[35]). The courts, however, have now ordered that "The FDA shall produce the "more than 12,000 pages" articulated in its own proposal, see ECF No. 29 at 24, on or before January 31, 2022." And "…shall produce the remaining documents at a rate of 55,000 pages every 30 days, with the first production being due on or before March 1, 2022, until production is complete." (see Public Health and Medical Professionals for Transparency vs Food and Drug Administration, 01/06/22)[36]

[35] https://www.sirillp.com/wp-content/uploads/2021/11/020-Second-Joint-Status-Report-8989f1fed17e2d919391d8df1978006e.pdf
[36] https://www.sirillp.com/wp-content/uploads/2022/01/ORDER_2022_01_06-9e24e298ae561d16d68a3950ab57077b.pdf

- Doshi et al. (2022):
    - Referring to the influenza pandemic of **2009** (**swine flu pandemic** caused by H1N1), the authors address how it was revealed that "…governments around the world had spent billions stockpiling antivirals for influenza that had not been shown to reduce the risk of complications, hospital admissions, or death. The majority of trials that underpinned regulatory approval and **government stockpiling** of oseltamivir (Tamiflu) were **sponsored by the manufacturer**; most were **unpublished**, those that were **published were ghostwritten by writers paid by the manufacturer**, the people listed as **principal authors lacked access to the raw data**, and **academics who requested access to the data for independent analysis were denied** (Cohen, 2009;Doshi, 2009;Godlee, 2009;Godlee and Clarke, 2009)."
    - The authors then continue by stating that "The errors are being repeated. Memories are short. Today, despite the global rollout of covid-19 vaccines and treatments, the anonymised participant level data underlying the trials for these new products remain inaccessible to doctors, researchers, and the public—and are likely to remain that way for years to come (El Sahly et al., 2021). This is morally indefensible for all trials, but especially for those involving major public health interventions"
- Tanveer et al. (2021): in relation to the necessity for data transparency -
    - "Tax payers helped fund COVID-19 vaccine trials and should have the right to access the results.
    - There is inadequate availability of COVID-19 vaccine trial documents and data; individual [deidentified] participant data will not be available for months, perhaps years, for most vaccines.
    - Widespread use of interventions without full data transparency raises concerns over the rational use of COVID-19 vaccines."

7.4 Potential spread of "Vaccine" mRNA (and side effects) beyond site of injection and to others

Despite the initial insistence that the vaccine would not spread beyond the site of injection, and accusations of those who stated such as being conspiracy theorists, the evidence continues to accumulate indicating that it does.

- "We found that ***vaccine-associated synthetic mRNA persists in systemic circulation for at least 2 weeks***." (Fertig et al., 2022)
- "These data demonstrate for the first time to our knowledge the biodistribution of COVID-19 vaccine mRNA to mammary cells and the potential ***ability of tissue EVs [Extracellular vesicles] to package the vaccine mRNA that can be transported to distant cells.*** Little has been reported on lipid nanoparticle biodistribution and localization in human tissues after COVID-19 mRNA vaccination. In rats, up to 3 days following intramuscular administration, low vaccine mRNA levels were detected in the heart, lung, testis, and brain tissues, indicating tissue biodistribution.[4] We speculate that, following the vaccine administration, ***lipid nanoparticles containing the vaccine mRNA are carried to mammary glands via hematogenous and/or lymphatic routes***.[5,6] Furthermore, we speculate that vaccine mRNA released into mammary cell cytosol can be recruited into developing EVs that are later secreted in EBM [expressed breast milk]." (Hanna et al., 2022)

- "***Vaccine mRNA-carrying lipid nanoparticles spread after injection throughout the body according to available animal studies and vaccine mRNA*** (naked or in nanoparticles or in natural exosomes) is found in the bloodstream as well as vaccine spike in free form or encapsulated in exosomes (shown in human studies). ***Lipid nanoparticles*** (or their natural equivalent, exosomes or extracellular vesicles (EVs)) ***have been shown to be able to be excreted through body fluids (sweat, sputum, breast milk) and to pass the transplacental barrier***. These EVs are ***also able to penetrate by inhalation and through the skin (healthy or injured) as well as orally through breast milk*** (and why not during sexual intercourse through semen, as this has not been studied)." (Banoun, 2022)

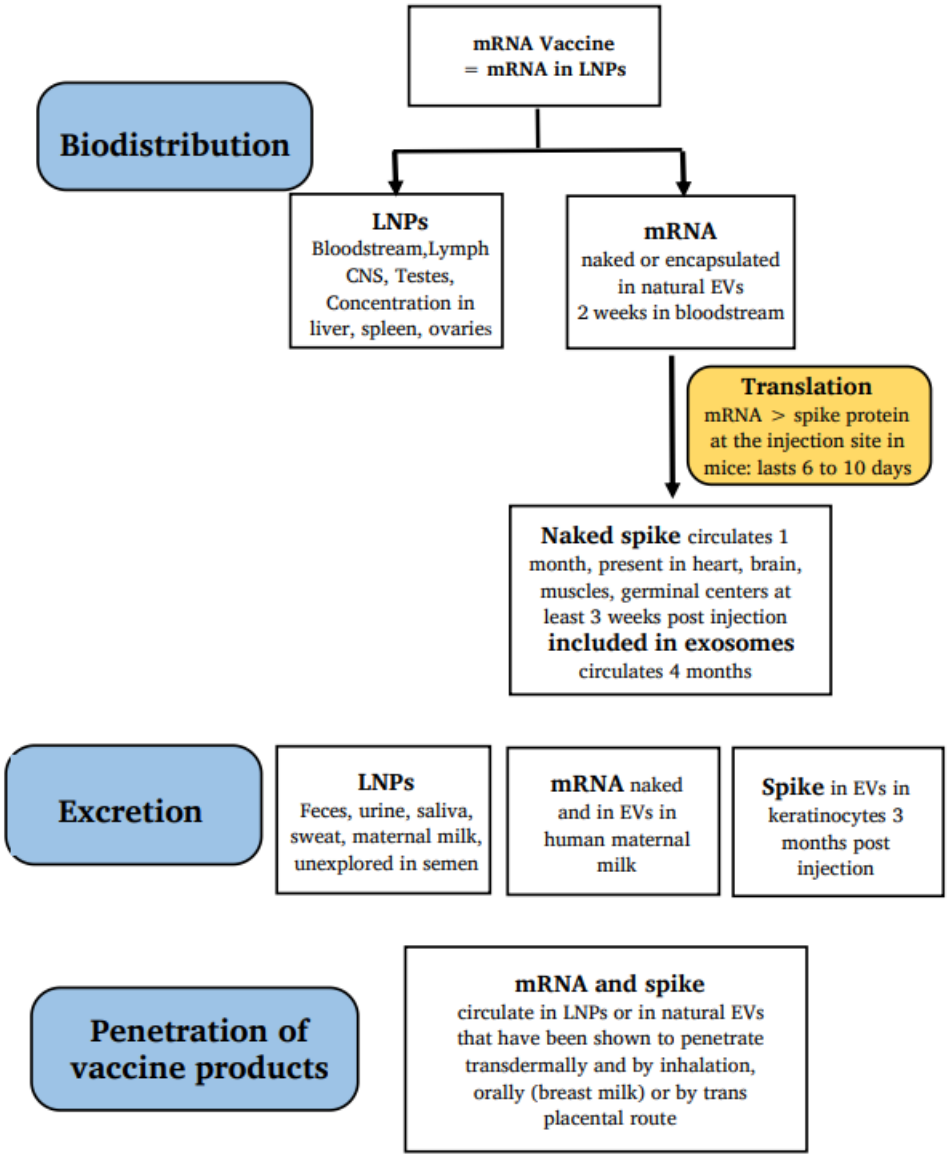


Figure 1 State of knowledge on excretion of mRNA vaccines

Figure 5: Figure 1 from Banoun, H. (2022). Current state of knowledge on the excretion of mRNA and spike produced by anti-COVID-19 mRNA vaccines; possibility of contamination of the entourage of those vaccinated by these products. Infectious Diseases Research 3.

- In a News & Analysis item in the Journal of the American Medical Association (JAMA), Rita Rubin addresses the potential and current investigation for the administration of the COVID vaccines via an **intranasal spray** (Rubin, 2021). [**NOTE:** The article includes comments from an interview with various scientist having potential significant conflicts of interest (see paper for Conflict of Interest Disclosure). The report also reports Dr. Paul Spearman indicating that "***One concern with intranasal vaccines is that they could trigger respiratory illnesses***". Given:
  - The availability of medications with potentially significantly lower risk of causing the significant adverse events observed with the COVID-19 "vaccines", such as hypertonic saline and Povidone-Iodine oronasal sprays (see under **Available Treatments** below), in addition to the available treatments,
  - The volume of adverse events reported thus far from the vaccines,
  - The potential long-term negative effects of these vaccines being unknown,
  - The low infection fatality rate of the diseases (COVID-19) itself and
  - The increased potential to enhance the spread to the brain (including due to of the high velocity of the sprayed droplets) – This is particularly disturbing for several reasons:
    - The potential for neurological issues is already a concern with the vaccines (Merchant, 2021)
    - "SARS-CoV-2 [i.e., the virus itself] has been reported to show a capacity for invading the brains of humans and model animals" (Zhang et al., 2021c)
    - "We demonstrate SARS-CoV-2 can infect and replicate in human iPSC-derived neurons and that infection shows limited anti-viral and inflammatory responses but increased activation of EIF2 signaling following infection…Collectively, these findings ***contribute to previous work demonstrating the ability of SARS-CoV-2 to infect neurons***…" (Olivarria et al., 2021)
    - "SARS-CoV-2-infected mice exhibited ***encephalitis*** hallmarks characterized by production of cytokines and chemokines, leukocyte infiltration, hemorrhage and neuronal cell death. ***SARS-CoV-2 was also found to productively infect cells within the nasal turbinate, eye and olfactory bulb, suggesting SARS-CoV-2 entry into the brain by this route after intranasal infection***. Our data indicate that direct infection of CNS cells together with the induced inflammatory response in the brain resulted in the severe disease observed in SARS-CoV-2-infected K18-hACE2 mice." (Kumari et al., 2021)
    - Easier access to the brain by application of pharmaceuticals to the nares through a route known as nose-to-brain is an established concept: "***One way to bypass the blood brain barrier and thus treat diseases of the brain is to use the nasal route of administration*** and deposit drugs at the olfactory region of the nares, from where they travel to the brain via mechanisms that are still not clearly understood, with travel across nerve fibers and travel via a perivascular pathway both being hypothesized. The nose-to-brain route has been demonstrated repeatedly in preclinical models, with both solution and particulate formulations." (Wang et al., 2019)

it does **not** appear that the benefits outweigh the risks, or that this form of "vaccination" would be anymore justifiable than the injectable vaccines.]

- Suzuki and Gychka (2021)
  - "However, recent observations suggest that the SARS-CoV-2 spike protein can by itself trigger cell signaling that can lead to various biological processes. It is reasonable to assume that such events, in some cases, result in the pathogenesis of certain diseases."
  - "However, ***we need to consider their long-term consequences carefully, especially when they are administered to otherwise healthy individuals as well as young adults and children***. In addition to evaluating data that will become available from SARS-CoV-2 infected individuals"
- Appropriate biodistribution studies appear to be, in general, absent[37] from the scientific literature.
- Unfounded insistence (given conflicting evidence) that the vaccine acts locally at the site of injection in order to induce the immune response, despite evidence that this, potentially, is not the case (Pfizer;European Medicines Agency Committee for Medicinal Products for Human Use (CHMP), 2021a;b).
- Tissue implicated in this distribution include the spleen and ovaries after 48 hours (Pfizer). If the particles containing the instructions (mRNA) for making the protein that causes the immune response travel beyond the site of injection, given the target (Kuhn et al., 2004;Hoffmann et al., 2020;Lan et al., 2020) and its broad distribution (Hamming et al., 2004;Jing et al., 2020) in the human body (including the ovaries, brain etc.), this may potentially be the reason for the significantly higher levels of various serious side effects compared to other vaccines (data from VAERS available upon request, and see below)
- Potential toxicity of nanoparticles used in drug delivery
  - Wang et al. (2018)
    1) "Previous studies have shown that numerous types of NPs [nanoparticles] are able to pass certain biological barriers and exert toxic effects on crucial organs, such as the brain, liver, and kidney."
    2) "NPs can pass through the blood–testis barrier, placental barrier, and epithelial barrier, which protect reproductive tissues, and then accumulate in reproductive

[37] https://www.bmj.com/content/373/bmj.n958/rr-1

organs."

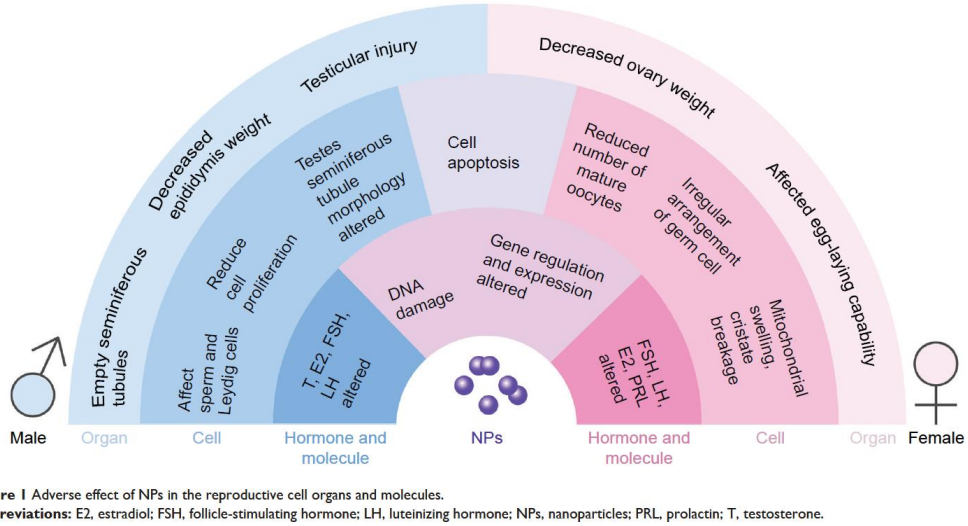


Figure 1 Adverse effect of NPs in the reproductive cell organs and molecules.
Abbreviations: E2, estradiol; FSH, follicle-stimulating hormone; LH, luteinizing hormone; NPs, nanoparticles; PRL, prolactin; T, testosterone.

Figure 6: Figure 1 from Wang, R., Song, B., Wu, J., Zhang, Y., Chen, A., and Shao, L. (2018). Potential adverse effects of nanoparticles on the reproductive system. Int J Nanomedicine 13, 8487-8506.

3) "Previous studies have shown that NPs [nanoparticles] can increase inflammation, oxidative stress, and apoptosis and induce ROS, causing damage at the molecular and genetic levels which results in cytotoxicity."

- McAuliffe and Perry (2009)

1) "While research into the potential reproductive toxicity of nanoparticles is still in its infancy, the identified research suggests that nanoparticles cross the blood testes barrier and deposit in the testes, and that there is potential for adverse effects on sperm cells."

- Khayat-Khoei et al. (2021)
  - "Our observations suggest that, in some individuals, COVID-19 vaccination [Moderna (n = 3) or Pfizer (n = 4)] may carry a short-term risk of CNS demyelination." [**NOTE**: study carried out in MS patients; very small number; additional research is necessary]

7.5 Children, adolescents and vaccinations – lack of necessity and dangers

- Eberhardt and Siegrist (2021)
  - "Compared to adults, the incidence and disease severity of COVID-19 are low in children, and despite their infectiveness, their role in disease propagation is limited. Therefore, COVID-19 vaccines will need to have fully demonstrated safety and efficacy in preventing not only complications but transmission to justify childhood vaccination."
  - "To date, no NHP preclinical study has assessed the effect of vaccination in the prevention of transmission, and end-points of human COVID-19 vaccine trials focus on the induction of immunity and individual protection against disease."
- Opel et al. (2021)

- "The criterion that should be prioritized over all others is the first: t**here must be evidence that a COVID-19 vaccine is safe for children with an acceptable level of risk**. Fulfilling this criterion normally requires both prelicensure safety data and data from post licensure studies to monitor for adverse effects after the vaccine has been administered to many people. Accumulation of the data needed to fulfill this criterion often requires years of research."
- "It would be a mistake to consider making a COVID-19 vaccine mandatory without these data. Vaccine safety is fundamental to maintaining the public's trust in vaccines, and skirting this safety criterion could have far-reaching consequences"
- "Nevertheless, with these criteria as a framework, the only logical conclusion is that we currently know too little about the performance of any of the candidate COVID-19 vaccines or the epidemiology of SARS-CoV-2 in children to make any firm judgments about whether a COVID-19 vaccine should be mandatory in children."

- Kostoff et al. (2021)
  - "Clinical trials for these inoculations were very short-term (a few months), had samples not representative of the total population, and for adolescents/children, had poor predictive power because of their small size."
  - "Further, the clinical trials did not address changes in biomarkers that could serve as early warning indicators of elevated predisposition to serious diseases."
  - "Most importantly, the clinical trials did not address long-term effects that, if serious, would be borne by children/adolescents for potentially decades."
  - "…the deaths following inoculation are not coincidental and are strongly related to inoculation through strong clustering around the time of injection."
  - "…the VAERS deaths reported so far are for the very short term. We have no idea what the death numbers will be in the intermediate and long-term; the clinical trials did not test for those."
  - "The clinical trials used a non-representative younger and healthier sample to get EUA for the injection. Following EUA, the mass inoculations were administered to the very sick (and first responders) initially, and many died quite rapidly. However, because the elderly who died following COVID-19 inoculation were very frail with multiple comorbidities, their deaths could easily be attributed to causes other than the injection (as should have been the case for COVID-19 deaths as well)."
  - "Since many of these potential serious adverse effects have built-in lag times of at least six months or more, we won't know what they are until most of the population has been inoculated, and corrective action may be too late"
- Schauer et al. (2021a)
  - "We describe 13 patients 12-17 years of age who presented with chest pain within 1 week after the second dose of the Pfizer vaccine and were found to have elevated serum troponin levels and evidence of myopericarditis."

- "Although a causal relationship between vaccine receipt and development of myopericarditis cannot be concluded from a case series, clustering in time as well as the uncommon occurrence of myopericarditis and the rapid resolution of symptoms and findings made this likely to be a unique vaccine related event."
- "Identification of myopericarditis as an adverse event should have high priority during investigations before and after authorization of COVID-19 vaccines and be considered by policy makers in the risk/benefit ratio in adolescents and children"

- See also **VAERS data analysis** below

7.6 Antibody-Dependent Enhancement (ADE)

- **Definition**: "ADE is an enhancement of viral entry into immune cells mediated by antibody" (Wu et al., 2020)
- **NOTE**: Potential reason for ADE, in addition to the dangers of full-length spike-based vaccines - "Our findings provide evidence of ***the spike protein hijacking the DNA damage repair machinery and adaptive immune machinery*** in vitro. We propose a potential mechanism by which spike proteins may impair adaptive immunity by inhibiting DNA damage repair…which is also consistent with a recent study that a full–length spike–based vaccine induced lower antibody titers compared to the RBD [receptor-binding-domain]–based vaccine" (Jiang and Mei, 2021).
- "Prior COVID-19 infection but not ongoing Long-COVID [Long-COVID was defined as symptoms persisting >2 months to vaccination] symptoms were associated with an increase in the risk of self-reported adverse events following BNT162b2/Pfizer vaccination." (Raw et al., 2021) [**NOTE**: this finding appears to indicate that vaccination (at the very least with this vaccine) is **contraindicated** following infection]
- "Our results revealed that ADE mediated by SARS-CoV-2 spike-specific antibodies could result from binding to the receptor in slightly different pattern from antibodies mediating neutralizations." (Wu et al., 2020)
- "Data from the study of SARS-CoV and other respiratory viruses suggest that anti-SARS-CoV-2 antibodies could exacerbate COVID-19 through antibody-dependent enhancement (ADE)." (Lee et al., 2020)
- "Antibody-dependent enhancement (ADE) may be involved in the clinical observation of increased severity of symptoms associated with early high levels of SARS-CoV-2 antibodies in patients. Infants with multisystem inflammatory syndrome in children (MIS-C) associated with COVID-19 may also have ADE caused by maternally acquired SARS-CoV-2 antibodies bound to mast cells." (Ricke, 2021)
- "COVID-19 vaccines designed to elicit neutralizing antibodies may sensitise vaccine recipients to more severe disease than if they were not vaccinated… The specific and significant COVID-19 risk of ADE should have been and should be prominently and independently disclosed to research subjects currently in vaccine trials, as well as those being recruited for the trials and future patients after vaccine approval, in order to meet the medical ethics standard of patient comprehension for informed consent." (Cardozo and Veazey, 2021)
- In relation to the attempted development for a SARS-CoV-1 vaccine (Tseng et al., 2012):

- "These SARS-CoV vaccines all induced antibody and protection against infection with SARS-CoV. However, challenge of mice given any of the vaccines led to occurrence of Th2-type immunopathology suggesting hypersensitivity to SARS-CoV components was induced. Caution in proceeding to application of a SARS-CoV vaccine in humans is indicated."
- "…concern for an inappropriate response among persons vaccinated with a SARS-CoV vaccine emanated from experiences with coronavirus infections and disease in animals that included enhanced disease among infected animals vaccinated earlier with a coronavirus vaccine(Perlman and Dandekar, 2005)."
- "The concern arising from the present report is for an immunopathologic reaction occurring among vaccinated individuals on exposure to infectious SARS-CoV, the basis for developing a vaccine for SARS. Additional safety concerns relate to effectiveness and safety against antigenic variants of SARS-CoV and for safety of vaccinated persons exposed to other coronaviruses..."

7.7 Breakthrough Infections, Vaccine Pressure, Viral Escape

- **Background**:
  - While claims are made that the unvaccinated are a threat to the vaccinated (Goldman, 2021), Kampf (2021a) states that "There is increasing evidence that vaccinated individuals continue to have a relevant role in transmission" the author continues…
    1) "In the USA, a total of 10 262 COVID-19 cases were reported in vaccinated people by April 30, 2021, of whom 2725 (26·6%) were asymptomatic, 995 (9·7%) were hospitalised, and 160 (1·6%) died (CDC Covid-Vaccine Breakthrough Case Investigations Team, 2021)."
    2) "In Germany, 55·4% of symptomatic COVID-19 cases in patients aged 60 years or older were in fully vaccinated individuals…"
  - RNA viruses "typically have high mutation rates due to lack of RdRp [RNA-dependent RNA-polymerase or RNA replicase] proofreading activity [i.e. lack of proofreading of the replicated RNA], which promotes viral genetic diversity and increases their adaptive potential." "…the mutation rates of coronaviruses are an order of magnitude lower (10^{-6} to10^{-7}) than that of most RNA viruses" (Hartenian et al., 2020)
  - "The genomes of positive-strand RNA viruses have considerable capacity to evolve quickly in response to changing ecologic conditions and/or host environments" (Denison et al., 2011)
- **Vaccine pressure and viral escape**: known to happen with influenza virus due to an "increase of the viral genetic diversity", which "may reflect the emergence and the subsequent selection of mutants escaping vaccine pressure…". Admittedly, viral escape with influenza is more likely "particularly where vaccination was not completely or properly applied…" (Cattoli et al., 2011). This raises the following practical and ethical issues:
  - Low mortality rate does not justify vaccination
  - Low mortality rate does not logically justify the risk of the potential for more dangerous variants that could be more detrimental to the population due to vaccine pressure

- Low mortality rate does not ethically justify the imposition of vaccine mandates simply to reach a "complete vaccination state", when natural immunity could continue to evolve and effective medications for treatment are available.
- **Summary**: While coronaviruses are somewhat more stable, they still have the capacity to mutate. This is evident in the SARS-CoV-2 variants that continue to appear (e.g. Delta variant). Vaccine breakthrough appears to be indicated given the higher presence in those vaccinated. Weighing the risk of death from the virus with the purported benefits of the vaccine, is it practical and ethical to provide a vaccine that may be more likely to produce a more dangerous situation? [also see below Saito et al. (2021)]

- "The proportion with breakthrough infections was 3 times higher in the IC [immunocompromised] cohort compared to the non-IC cohort" (Di Fusco et al., 2021) (**NOTE**: Asthma is also considered as an immunocompromised stated (Christou et al., 2019). However, the authors indicate that only the following were considered in the immunocompromised group (IC): "(1) symptomatic human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS); (2) solid malignancy; (3) bone marrow transplant; (4) organ transplant (excluding bone marrow transplant); (5) rheumatologic or other inflammatory condition; (6) a primary immunodeficiency; (7) other immune conditions; (8) chronic kidney disease (CKD) or end stage renal disease (ESRD); and (9) hematologic malignancy."
- "Outbreak investigations suggest that vaccinated persons can spread Delta" (Riemersma et al., 2021)
- "Approximately three quarters (346; 74%) of cases occurred in fully vaccinated persons (those who had completed a 2-dose course of mRNA vaccine [Pfizer-BioNTech or Moderna] or had received a single dose of Janssen [Johnson & Johnson] vaccine ≥14 days before exposure)." (Brown et al., 2021)
- "Our data show that anti-disease vaccines that do not prevent transmission can create conditions that promote the emergence of pathogen strains that cause more severe disease in unvaccinated hosts." (Read et al., 2015)
- The combined findings from
  - Riemersma et al. (2021), indicating that vaccinated people can spread the Delta (also known as B.1.617.2) variant,
  - Read et al. (2015), indicating that vaccines that do not prevent transmission can promote the emergence of strains that can cause more severe disease, and
  - Saito et al. (2021) who report a specific mutation (P681R) in the spike protein characteristic of the Delta/ B.1.617.2 variant which facilitates "the spike protein cleavage and ***enhances viral fusogenicity***" and that viruses that have this mutation exhibit "***higher pathogenicity*** than the parental virus",

  appear to give further credence to the concept of viral escape.

7.8 Virus interference

- "Receiving influenza vaccination may increase the risk of other respiratory viruses, a phenomenon known as virus interference…Vaccine derived virus interference was significantly associated with coronavirus and human metapneumovirus…" (Wolff, 2020)

7.9 Measuring Vaccine Efficacy

- What is the real efficacy of the vaccines? – It depends on what you're looking at!!!! Olliaro et al. (2021) present some useful information in this regard:
  - **Relative Risk Reduction (RRR)**
    1) Definition: ***used to report vaccine efficacy*** = ***1 – RR (the ratio of attack rates with and without a vaccine)***.
    2) "However, RRR should be seen against the background risk of being infected and becoming ill with COVID-19, which varies between populations and over time."
    3) "RRR considers ***only participants who could benefit from the vaccine***"
    4) The **RRR** for the vaccines is:
       - 95% for the Pfizer–BioNTech,
       - 94% for the Moderna–NIH,
       - 91% for the Gamaleya,
       - 67% for the J&J, and
       - 67% for the AstraZeneca–Oxford vaccines
  - **Absolute Risk Reduction (ARR)**:
    1) Definition: "***the difference between attack rates with and without a vaccine, considers the whole population***" (compare to RRR)
    2) "ARRs tend to be ignored because they give a much less impressive effect size than RRRs".
    3) The **ARR** for the vaccines is:
       - 1.3% for the AstraZeneca–Oxford,
       - 1.2% for the Moderna–NIH,
       - 1.2% for the J&J,
       - 0·93% for the Gamaleya, and
       - 0.84% for the Pfizer–BioNTech vaccines.
  - "There are many lessons to learn from the way studies are conducted and results are presented. With the use of only RRRs, and omitting ARRs, reporting bias is introduced, which affects the interpretation of vaccine efficacy"

7.10 Vaccine Efficacy/Inefficacy, Waning Vaccine Immunity and Natural Immunity

- Recent analysis of the CDC data by researchers at the Kaiser Family Foundation[38] indicates the following:
  - Deaths of the **unvaccinated** decreased over time stabilizing at around April, 2022
  - Deaths of those **vaccinated with primary series** remains stable between September 2021 and August 2022

[38] https://www.kff.org/policy-watch/why-do-vaccinated-people-represent-most-covid-19-deaths-right-now/

- Deaths of the **vaccinated with booster** increased from 0.4% (September 2021) to 36% (August 2022), stabilizing around April, 2022
- Combined Deaths of vaccinated with primary series and booster indicates an increase in deaths from COVID-19 vaccination status from 22.4% (September 2021) to 58% (August 2022)

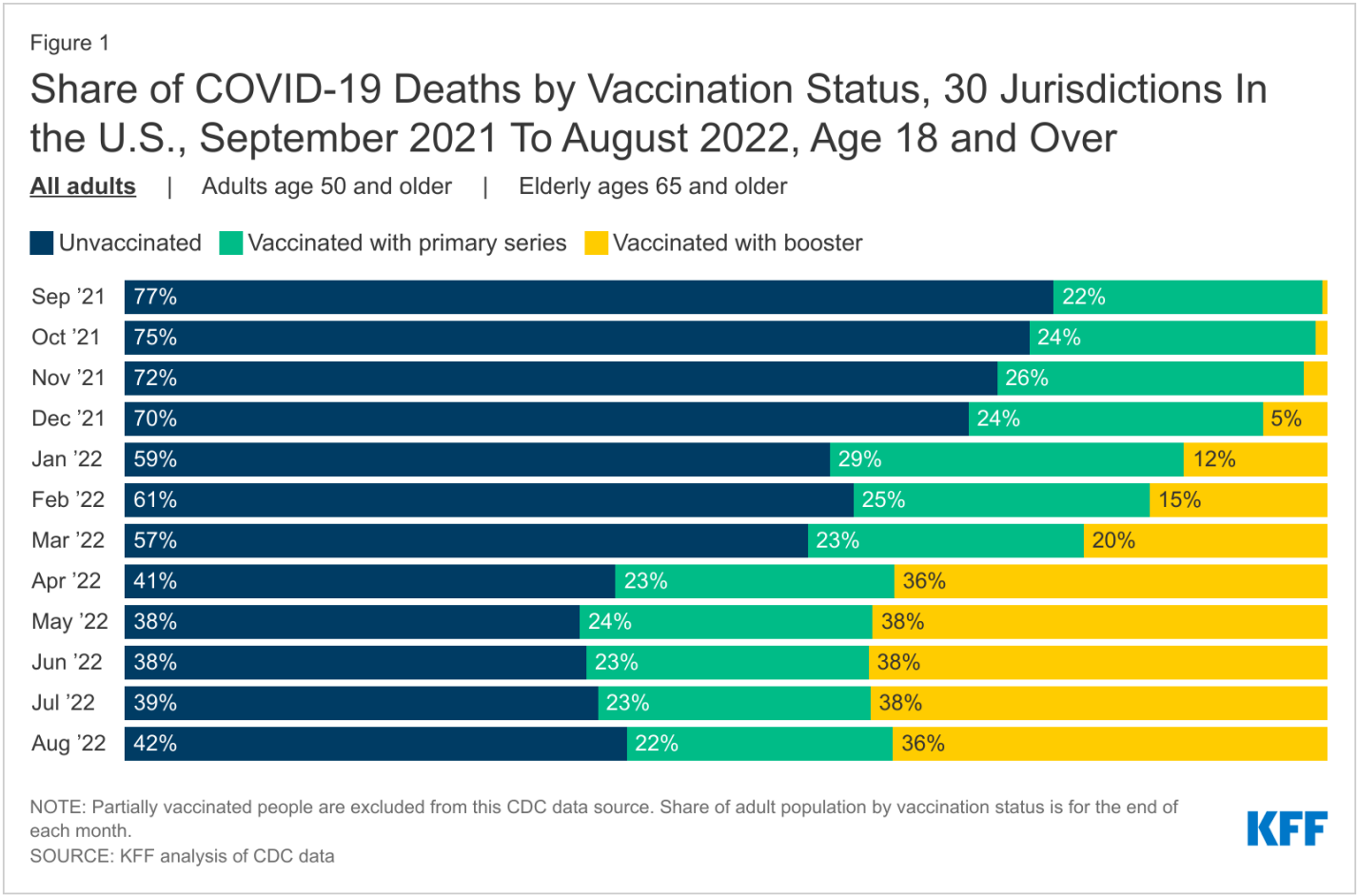


Figure 7 Source: https://www.kff.org/policy-watch/why-do-vaccinated-people-represent-most-covid-19-deaths-right-now/

- In reference to the Fourth BNT162b2 Vaccine Dose: "Time-specific vaccine ***effectiveness*** (which, in our analysis, compared infection rates among participants who had not yet been infected since vaccination) ***waned with time, decreasing from 52%*** (95% CI, 45 to 58) ***during the first 5 weeks after vaccination to −2%*** (95% CI, −27 to 17) ***at 15 to 26 weeks***." (Canetti et al., 2022)
- "By analyzing results of more than 460,000 individuals, we show that while recent vaccination reduces Omicron viral load, ***its effect wanes rapidly***. In contrast, ***a significantly slower waning rate is demonstrated for recovered COVID-19 individuals***." (Woodbridge et al., 2022)
- "No discernable differences in protection against symptomatic BA.1 and BA.2 infection were seen with previous infection, vaccination, and hybrid immunity." (Altarawneh et al., 2022)
- "***Among persons who had been previously infected with SARS-CoV-2*** (regardless of whether they had received any dose of vaccine or whether they had received one dose before or after infection), ***protection against reinfection decreased as the time increased since the last***

immunity-conferring event; ***however, this protection was higher than that conferred after the same time had elapsed since receipt of a second dose of vaccine among previously uninfected persons***. A single dose of vaccine after infection reinforced protection against reinfection." (Goldberg et al., 2022)

- Number of cases of SARS-CoV-2 infections per 100,000 person-days (For graphical representation of the following information please see the figure below this information from the paper itself)

    1) Unvaccinated:

        - 10.5 (4 to <6 months from recovery from infection)
        - 30.2 (1 year or more from recovery from infection)

    2) Single dose after previous infection:

        - 3.7 (<2 months from vaccination)
        - 11.6 (at least 6 months from vaccination)

    3) **Two doses:**

        - 21.1 (<2 months from vaccination)
        - 88.9 (at least 6 months from vaccination)

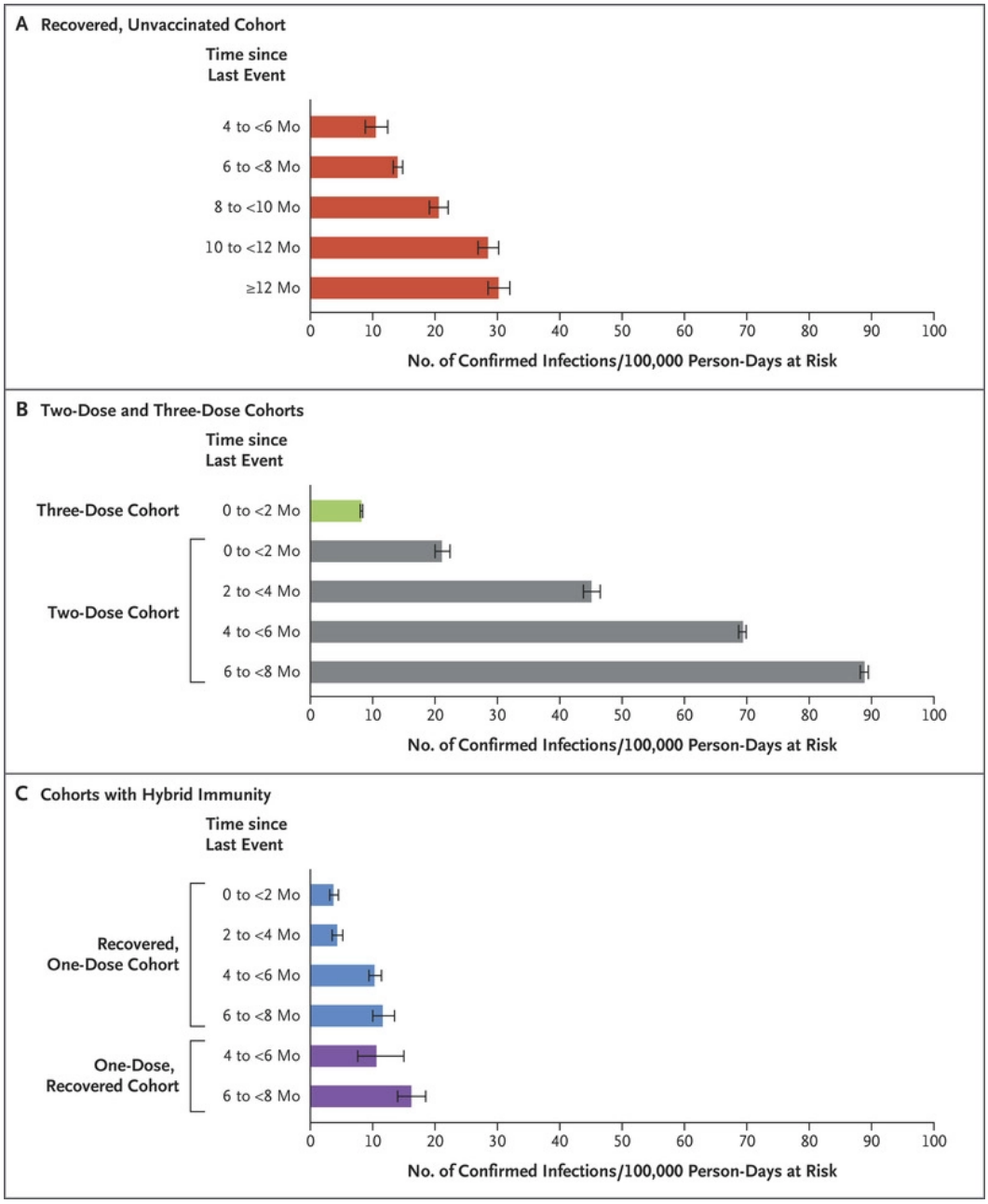


Figure 8: "Figure 3. Estimated Covariate-Adjusted Rates of Confirmed Infections per 100,000 Person-Days at Risk." (Goldberg et al., 2022)

- "*Objective*: To assess the antibody response in non-immunocompromised adults after two doses of BNT162b2 [vaccine]… *Conclusions*: ***The decline of anti-RBD antibodies 3 months after the second dose of BNT162b2 is of concern because it raises the possibility of a short-lived humoral immunity after vaccination***." Of course, the solution provided is "Booster doses of BNT162b2 might be required to maintain high titres of anti-RBD antibodies over time."!!!(Erice et al., 2022)

- Why are Chinese scientists (four out of the five authors are affiliated with an institution in China) so interested in the "Impact of vaccination on the COVID-19 pandemic in U.S. states"??? The abstract states that "Herd immunity could be achieved earlier with a faster vaccination pace, lower vaccine hesitancy, and higher vaccine effectiveness…. These findings improve our understanding of the COVID-19 vaccination and can inform future public health policies." (Chen et al., 2022)

[**Question: What is the motive of this research? Is it really deserving of such attention in such a high-profile scientific journal?**]

- "…an Omicron boost may not provide greater immunity or protection compared to a boost with the current mRNA-1273 vaccine" (Gagne et al., 2022) [**Interpretation**: Omicron-specific vaccine booster may not be needed]
- Three studies (Accorsi et al., 2022;Johnson et al., 2022;Thompson et al., 2022) were published on the same day by the CDC or CDC-associated investigators reporting that the booster shots were needed against Omicron. The vaccine efficacy reported does not appear to concur with expected consequences of the vaccine reported in other studies e.g., reports of increased spread associated with immune evasion (Lyngse et al., 2021), reduction in neutralization with resulting potential increases in breakthrough infections (Gazit et al., 2021;Kampf, 2021b), reduction in long-term protection (Mizrahi et al., 2021), increased risk of infection by variants (Servellita et al., 2021) and the increased number of cases despite vaccination (Subramanian and Kumar, 2021). Additionally, the message propagated by these papers does not appear to concur with the evident reality of hospitalizations e.g., in Israel[39].
- "Our findings confirm that ***the rapid spread of the Omicron VOC*** [variant of concern] ***primarily can be ascribed to the immune evasiveness rather than an inherent increase in the basic transmissibility***…Our results show that the Omicron VOC is generally 2.7-3.7 times more infectious than the Delta VOC among vaccinated individuals…Surprisingly, we observed no significant difference between the SAR of Omicron versus Delta among unvaccinated individuals" (Lyngse et al., 2021)
- Regarding Omicron variant in those vaccinated: "There was a ***substantial fall in neutralisation titres in recipients*** of both AZD1222 [AstraZeneca] and BNT162b2 [Pfizer] primary courses, with evidence of ***some recipients failing to neutralise at all***. This will ***likely lead to increased breakthrough infections in previously infected or double vaccinated individuals***, which could drive a further wave of infection, although there is currently no evidence of increased potential to cause severe disease, hospitalisation or death." (Dejnirattisai et al., 2021)
- "High COVID-19 vaccination rates were expected to reduce transmission of SARS-CoV-2 in populations by reducing the number of possible sources for transmission and thereby to reduce the burden of COVID-19 disease. Recent data, however, indicate that the epidemiological relevance of COVID-19 vaccinated individuals is increasing…***Many decision makers assume that the vaccinated can be excluded as a source of transmission. It appears to be grossly negligent to ignore the vaccinated population as a possible and relevant source of transmission when deciding about public health control measures.***" (Kampf, 2021b)

[39] https://www.israelnationalnews.com/news/321674

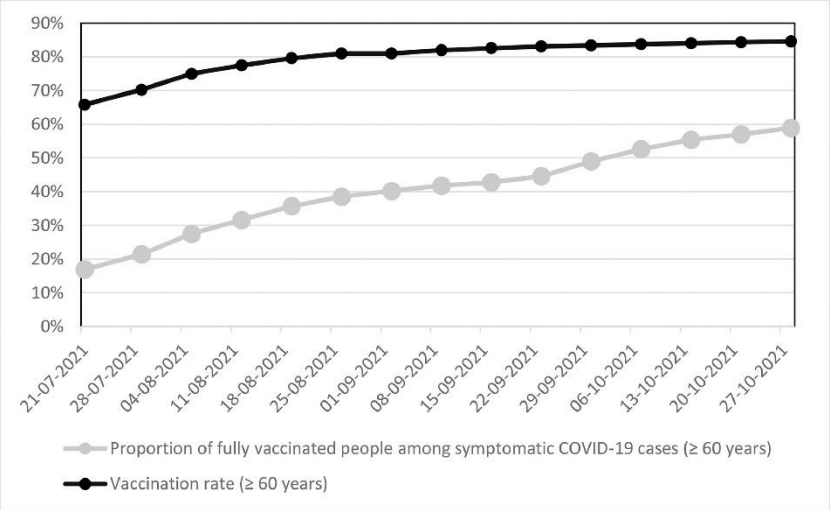


Figure 9: "Figure 1. Vaccination rates and proportions of fully vaccinated people among symptomatic COVID-19 cases (≥ 60 years) in Germany between 21. July and 27. October 2021 based on the weekly reports from the Robert Koch-Institute" (Kampf, 2021b)

- "After controlling for potential confounders as age and comorbidities, we found a significant 1.51 fold (95% CI, 1.38–1.66) increased risk for infection for early vaccinees compared to those vaccinated later that was similar across all ages groups. The increased risk reached 2.26- fold (95% CI, 1.80–3.01) when comparing those who were vaccinated in January to those vaccinated in April. ***Taken together, the study suggests a possible relative decrease in the long-term protection of the BNT162b2 vaccine against the Delta variant of SARS-CoV-2***." (Mizrahi et al., 2021)

- Report in Veterans Health Administration (n=780,225): "From February to October 2021, **VE-I** [vaccine effectiveness against infection] ***declined from 87.9% to 48.1%***, and the decline was greatest for the Janssen vaccine resulting in a VE-I of 13.1%...From July to October 2021, **VE-D** [vaccine effectiveness against death] for ***age 65 years was 73.0%*** for Janssen, ***81.5%*** for Moderna, and ***84.3%*** for Pfizer-BioNTech; VE-D for age ***≥65 years*** was ***52.2%*** for Janssen, ***75.5%*** for Moderna, and ***70.1%*** for Pfizer-BioNTech." (Cohn et al., 2021)

- "The spike protein of SARS-CoV-2 variant A.30 is heavily mutated and ***evades vaccine-induced antibodies*** with high efficiency" (Arora et al., 2021)

- "***Vaccine effectiveness against symptomatic Covid-19 infection wanes progressively over time*** across all subgroups, but at different rate according to type of vaccine, and faster for men and older frail individuals. The effectiveness against severe illness seems to remain high through 9 months, although not for men, older frail individuals, and individuals with comorbidities. This strengthens the evidence-based rationale for administration of a third booster dose." (Nordström et al., 2021) [**NOTE:** and the fourth booster? And the nth booster?]

- Servellita et al. (2021)

  - "***Fully vaccinated were more likely than unvaccinated persons to be infected by variants carrying mutations associated with decreased antibody neutralization*** (L452R, L452Q, E484K, and/or F490S) (**78% versus 48%**, p = 1.96e-08), but not by those associated with increased infectivity only (N501Y) (85% versus 77%, p = 0.092)" - see Figure below [**NOTE:** This indicates that fully vaccinated people, in fact more so, can still be infected by the virus]

- "Taken together, these data suggest that symptomatic ***breakthrough cases are likely as infectious as symptomatic unvaccinated cases***, and thus may contribute to ongoing SARS-CoV-2 transmission, even in a highly vaccinated community."

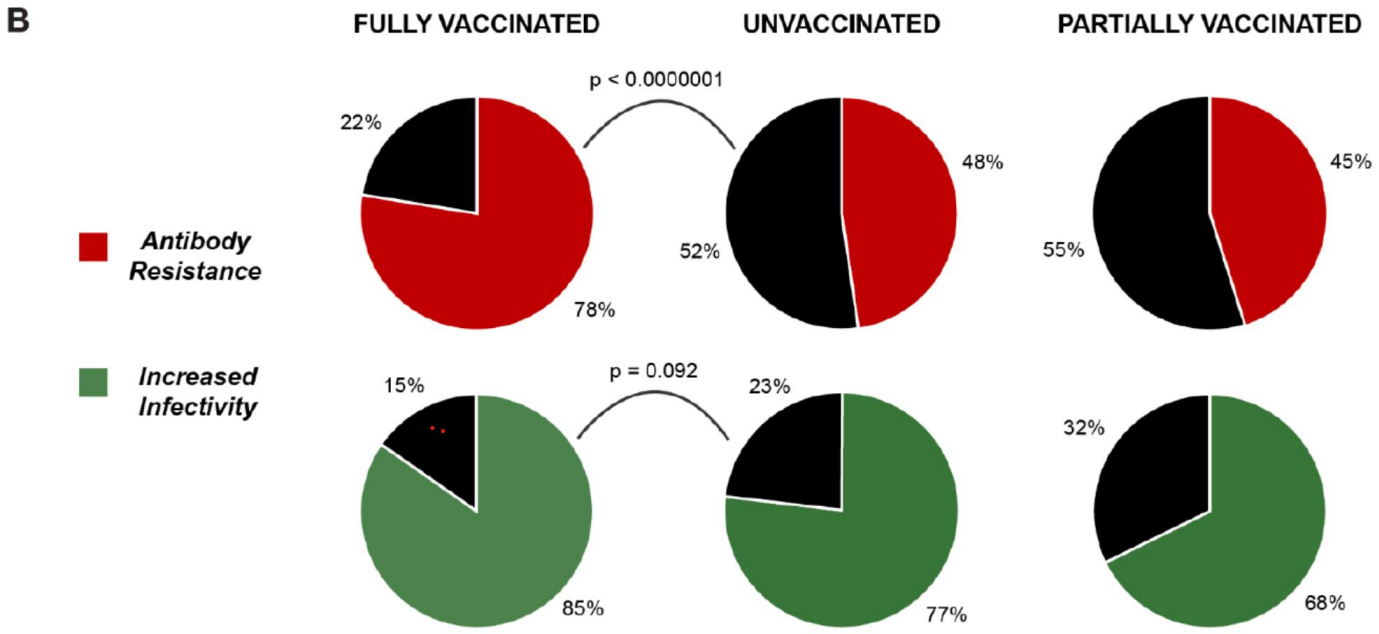


Figure 10: From Figure 2B Servellita et al., 2021 "(B) Pie charts showing the proportions of SARS-CoV-2 genomes carrying mutations associated with antibody resistance (top) and increased infectivity (bottom) in fully vaccinated and unvaccinated cases from UCSF Hospitals and Clinics and Color Genomics Laboratory, and partially vaccinated cases from UCSF. Red color indicates the presence of mutations associated with antibody resistance, green indicates the presence of mutations associated with increased infectivity, and black indicates the absence of either mutations."

- "We found no significant difference in cycle threshold values between vaccinated and unvaccinated, asymptomatic and symptomatic groups infected with SARS-CoV-2 Delta." (Acharya et al., 2021) [**NOTE:** this indicates that vaccinated people are just as likely to spread the virus]
- "Six months after receipt of the second dose of the BNT162b2 vaccine, humoral response was substantially decreased, especially among men, among persons 65 years of age or older, and among persons with immunosuppression."(Levin et al., 2021)
- "BNT162b2-induced protection against SARS-COV-2 infection appeared to wane rapidly [**Vaccine Effectiveness: 22.3%**] following its peak [**Vaccine Effectiveness: 77.5%**] after the second dose, but protection against hospitalization and death persisted at a robust level for 6 months after the second dose." (Chemaitelly et al., 2021)
- Subramanian and Kumar (2021)
  - "Notably, **Israel** with over **60%** of their population **fully vaccinated** had the **highest COVID-19 cases per 1 million people in the last 7 days**. The lack of a meaningful association between percentage population fully vaccinated and new COVID-19 cases is

further exemplified, for instance, by comparison of **Iceland** and **Portugal**. Both countries have **over 75%** of their population **fully vaccinated** and have **more COVID-19 cases per 1 million people than** countries such as **Vietnam and South Africa**."

- "There also appears to be no significant signaling of COVID-19 cases decreasing with higher percentages of population fully vaccinated"
- "Of the top 5 counties that have the highest percentage of population fully vaccinated (99.9–84.3%), the US Centers for Disease Control and Prevention (CDC) identifies 4 of them as "High" Transmission counties… Conversely, of the 57 counties that have been classified as "low" transmission counties by the CDC, 26.3% (15) have percentage of population fully vaccinated below 20%."
- "…in a report released from the Ministry of Health in Israel, the effectiveness of 2 doses of the BNT162b2 (Pfizer-BioNTech) vaccine against preventing COVID-19 infection was reported to be 39% [6], substantially lower than the trial efficacy of 96% [7]."
- "Even though vaccinations offer protection to individuals against severe hospitalization and death, the CDC reported an increase from 0.01 to 9% and 0 to 15.1% (between January to May 2021) in the rates of hospitalizations and deaths, respectively, amongst the fully vaccinated [10]".

- Gazit et al. (2021)
  - "SARS-CoV-2-naïve vaccinees [not previously infected, received vaccine] had a **13.06-fold** (95% CI, 8.08 to 21.11) ***increased risk for breakthrough infection with the Delta variant compared to those previously infected***, when the first event (infection or vaccination) occurred during January and February of 2021."
  - "When allowing the infection to occur at any time before vaccination (from March 2020 to February 2021), evidence of waning natural immunity was demonstrated, though ***SARS-CoV-2 naïve vaccinees*** [not previously infected, received vaccine] had a ***5.96-fold*** (95% CI, 4.85 to 7.33) ***increased risk for breakthrough infection*** and a ***7.13-fold*** (95% CI, 5.51 to 9.21) ***increased risk for symptomatic disease***. SARS-CoV-2-naïve vaccinees were also at a greater risk for COVID-19-related-hospitalizations compared to those that were previously infected."
- "Efficacy peaked at 96.2% during the interval from 7 days to <2 months post-dose 2, and declined gradually to 83.7% from 4 months post-dose 2 to the data cut-off, **an average decline of ~6% every 2 months.**" (Thomas et al., 2021)
- Vaccine effectiveness between March and July, 2021 significantly reduced from **93.9%** to **65.5%** (March: 93.9%; April: 96.2%; May: 95.9%; June: 94.3%; July: 65.5%) (Keehner et al., 2021)
- While the vaccines are being pushed as the solution to the COVID-19 pandemic, in addition to the reduced effectiveness just described, even if an argument could be made for their efficacy and reasonable use/administration, there is a factor that is being ignored, makes the use of the vaccines under the current socio-political circumstances even less justifiable – the potential inefficacy of the vaccines because of the various irrational and **stresses** (addressed above, e.g. lockdowns, mask mandates and more) imposed on whole populations.

- Chronic stress is known to significantly influence physiology (McEwen, 2007;2017;Koob and Schulkin, 2019), including the **immune system** [needed to combat the virus] (Segerstrom and Miller, 2004;Dhabhar, 2009).
- Chronic stress contributes to the potential for an increased predisposition to psychiatric disorders such as depression and anxiety (Hammen et al., 2009;McEwen et al., 2012).
- Chronic stress also impacts the efficacy of treatments (e.g. psychotropics, **vaccinations**, etc.) that are used to treat the systems affected by chronic stress itself! This includes central nervous system and the immune system (Dhabhar, 2009;Sommershof et al., 2017;Madison et al., 2021).
- "Psychological and behavioral factors interact with the current pandemic in many ways beyond vaccine response. These factors can influence susceptibility to infection on SARS-CoV-2 exposure and willingness to be vaccinated" (Madison et al., 2021)

- "This finding, that VoC-RBD-reactive [VoC: variants of concern; RBD:S receptor binding domain]MBCs [memory B-cells] are present in the peripheral blood of all subjects including those that experienced asymptomatic or mild disease, provides ***a reason for optimism regarding the capacity of vaccination, prior infection, and/or both, to limit disease severity and transmission of variants of concern as they continue to arise and circulate***." (Lyski et al., 2021)
- "***SARS-CoV-2 immunity is retained in a significant proportion of mild COVID-19 convalescents 12 months post-infection in the absence of re-exposure to the virus***. Despite this, changes in the amino acid sequence of the Spike antigen that are present in current VoC result in virus evasion of neutralising antibodies, as well as evasion of functional T cell responses" (Garcia-Valtanen et al., 2021) [**NOTE**: The last statement confirms what other research has stated: that virus evasion of the immune system is potentially the result of the actions of the newer variants. What is not addressed is how vaccines may potentially have contributed to this evasion (see other literature in this document)]
- "In this cross-sectional study of unvaccinated US adults, antibodies were detected in 99% of individuals who reported a positive COVID-19 test result, in 55% who believed they had COVID-19 but were never tested, and in 11% who believed they had never had COVID-19 infection. Anti-RBD [SARS-CoV-2 spike protein receptor-binding domain] levels were observed after a positive COVID-19 test result up to ***20 months***, extending previous 6-month durability data" (Alejo et al., 2022). [**NOTE**: However, Dr. Paul Alexander makes an important note about this in his blog: "The magic about these studies are that it shows if you ran the study for 100 years you will then conclude that natural immunity lasts 100 years…So its not that natural immunity lasts for 20 months, its the study was stopped then or follow-up ended then." [*sic*]][40]
- "In vaccinated subjects, ***antibody titers decreased by up to 38% each subsequent month while in convalescents they decreased by less than 5% per month***. ***Six months*** after BNT162b2 vaccination 16.1% subjects had antibody levels below the seropositivity threshold of <50 AU/mL, while only 10.8% of convalescent patients were below <50 AU/mL threshold after 9 months from SARS-CoV-2 infection. This study demonstrates individuals who received the Pfizer-BioNTech mRNA vaccine have different kinetics of antibody levels compared to patients who had been infected with the SARS-CoV-2 virus, with higher initial levels but a much faster exponential decrease in the first group." (Israel et al., 2021) [**Interpretation:** antibody levels were higher at 6

[40] https://palexander.substack.com/p/alejo-et-al-2022-prevalence-and-durability

months in "SARS-CoV-2 convalescents who had not received the vaccine" (i.e., in patients who had natural immunity due to a prior COVID-19 infection) relative to those who were vaccinated]

- "Our study provides evidence that the ***airway immune cells*** of ***children*** are primed for virus sensing, resulting in a ***stronger early innate antiviral response to SARS-CoV-2 infection than in adults***." (Loske et al., 2021)
- "…that ***immune protection is robust*** among those previously infected and that the risk of reinfection is low, and that it is mostly asymptomatic." (Chvatal-Medina et al., 2021)
- "***Reinfections had 90% lower odds of resulting in hospitalization or death than primary infections***." (Abu-Raddad et al., 2021b) – **Interpretation**: Immunity after infection is protective.
- In a response to a letter from the law firm Siri & Glimstad on behalf of the "Informed Consent Action Network ("ICAN") under the Freedom of Information Act requesting:

  > "**Documents reflecting any documented case of an individual who: (1) never received a COVID-19 vaccine; (2) was infected with COVID-19 once, recovered, and then later became infected again; and (3) transmitted SARS-CoV-2 to another person when reinfected"**

  the CDC responded as follows:

  > "**A search of our records failed to reveal any documents pertaining to your request. The CDC Emergency Operations Center (EOC) conveyed that this information is not collected."**

  Interpretation: CDC has ***NO*** record that those with natural immunity actually transmit COVID-19. (Andoh, 2021;Palmer, 2021)

- "***Prior SARS-CoV-2 infection was associated with a statistically significantly lower risk*** [approximately 6 times lower] ***for breakthrough infection among individuals receiving the BNT162b2 or mRNA-1273 vaccines***" (Abu-Raddad et al., 2021a)
  - **NOTE:** one of the potential implications of this finding is that the vaccine is actually working against the natural functioning of the immune system. Additionally, the findings support the reports in the previous section addressing the weakened antibody response in those vaccinated relative to those who are not (e.g. see Servellita et al. (2021))
  - **NOTE**: Additionally, these findings appear to corroborate the report by the UK Health Security Agency that mentions "***the overall higher profile of antibody levels in those who have experienced past infection is evident***" (UK Health Security Agency, 2021)

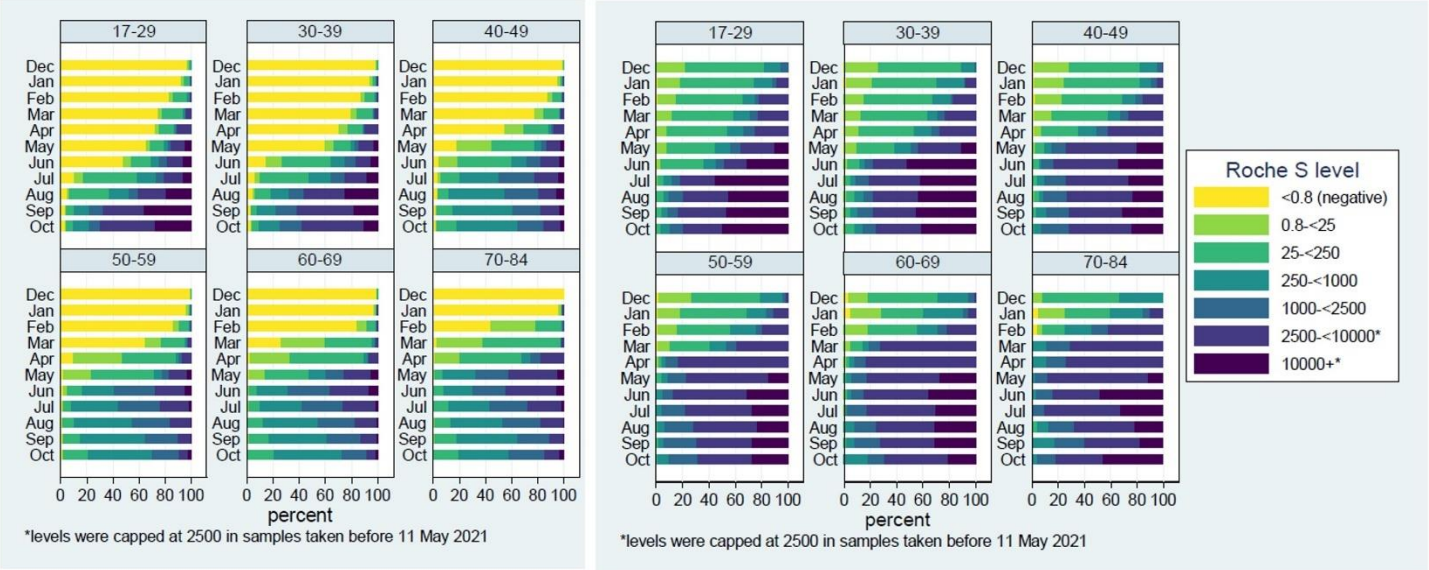


*Figure 11: Adapted from (UK Health Security Agency, 2021) Left: "Figure 6: Categorised Roche S antibody levels by age group and month in N negative samples [people who were not previously infected] , December 2020 to October 2021"; Right: "Figure 7: Categorised Roche S antibody levels [people who were previously infected] by age group and month in N positive samples, December 2020 to October 2021". **Interpretation**: people who were previously infected appear to have higher antibody levels/stronger immune response (darker colors). However, sadly the authors of the document and the scientists involved appear to still be catching up on what we have known for years in relation to antibody levels: "Researchers across the globe are working to better understand what antibody levels mean in terms of protection against COVID-19. Current thinking is that there is no threshold antibody level that offers complete protection against infection, but instead that higher antibody levels are likely to be associated with lower probability of infection."!!!*

- "The data suggest that immunity in convalescent individuals will be very long lasting and that convalescent individuals who receive available mRNA vaccines will produce antibodies and memory B cells that should be protective against circulating SARS-CoV-2 variants." [**NOTE**: the latter part pertaining to the vaccines does not appear to hold given the breakthrough infections, and hospital admissions being observed primarily of people who have received the vaccine] (Wang et al., 2021)

- "Importantly, we detected SARS-CoV-2-reactive CD4+ T cells in ~40%–60% of unexposed individuals, suggesting cross-reactive T cell recognition between circulating ''common cold'' coronaviruses and SARS-CoV-2." (Grifoni et al., 2020)

- "***Substantial immune memory is generated after COVID-19, involving all four major types of immune memory***. About 95% of subjects retained immune memory at ~6 months after infection. Circulating antibody titers were not predictive of T cell memory. Thus, simple serological tests for SARS-CoV-2 antibodies do not reflect the richness and durability of immune memory to SARS-CoV-2. This work expands our understanding of immune memory in humans. These results have implications for protective immunity against SARS-CoV-2 and recurrent COVID-19" (Dan et al., 2021)

- "SARS-CoV-2-specific cellular and humoral immunities are durable at least until one year after disease onset…These findings are encouraging in relation to the longevity of immune memory

against this novel virus and indicate that these ***sustained immune components***, which persist, among most SARS-CoV-2-infected individuals, ***may contribute to protection against reinfection***." (Zhang et al., 2021a)

- "…the results indicate local tissue coordination of cellular and humoral immune memory against SARS-CoV-2 for site-specific protection against future infectious challenges." (Poon et al., 2021)
- "It is now well-documented that ***mild and severe infection generates circulating virus-specific T cells and antibodies detectable in peripheral blood for up to a year or more*** (Grifoni et al., 2020;Bilich et al., 2021;Cohen et al., 2021;Dan et al., 2021;Gaebler et al., 2021;Rodda et al., 2021;Wang et al., 2021;Zuo et al., 2021). Moreover, the presence of neutralizing antibodies specific for the viral Spike (S) protein correlates with protection for SARS-CoV-2 vaccines (Earle et al., 2021;Khoury et al., 2021)."(Poon et al., 2021)
- Gazit et al. (2021)
  - "This study demonstrated that ***natural immunity confers longer lasting and stronger protection against infection, symptomatic disease and hospitalization caused by the Delta variant of SARS-CoV-2, compared to the BNT162b2 two-dose vaccine-induced immunity***."
  - Also see same authors under **Vaccine In/Effectiveness**
- **"**We found that NAb [neutralizing antibodies] against the wild-type virus persisted in 89% and S-IgG [SARS-CoV-2 spike immunoglobulin G] in 97% of subjects for at least 13 months after infection. Only 36% had N-IgG [nucleoprotein IgG] by 13 months. The mean S-IgG concentrations declined from 8 to 13 months by less than one third; N-IgG concentrations declined by two thirds. Subjects with severe infection had markedly higher IgG and NAb levels and are expected to remain seropositive for longer." (Haveri et al., 2021)
- "***Overall, our results indicate that mild infection with SARS-CoV-2 induces robust antigen-specific, long-lived humoral immune memory in humans.***"(Turner et al., 2021)
- "The observation that ***memory B cell responses do not decay after 6.2 months but instead continue to evolve, is strongly suggestive that individuals who are infected with SARS-CoV-2 could mount a rapid and effective response to the virus upon re-exposure***."(Gaebler et al., 2021)
- "The finding that patients who recovered from COVID-19 and SARS can mount T cell responses against shared viral determinants suggests that previous SARS-CoV infection can induce T cells that are able to cross-react against SARS-CoV-2…These findings demonstrate that virus-specific T cells induced by infection with betacoronaviruses are long-lasting, supporting the notion that ***patients with COVID-19 will develop long-term T cell immunity***. Our findings also raise the possibility that ***long-lasting T cells generated after infection with related viruses may be able to protect against, or modify the pathology caused by, infection with SARS-CoV-2***." (Le Bert et al., 2020)
- "The study results suggest that ***reinfections are rare events*** and patients who have ***recovered from COVID-19 have a lower risk of reinfection***." (Vitale et al., 2021)
- "Importantly, SARS-CoV-2-specific T cells were detectable in antibody-seronegative exposed family members and convalescent individuals with a history of asymptomatic and mild COVID-19. Our collective dataset shows that SARS-CoV-2 elicits broadly directed and functionally replete

memory T cell responses, suggesting that ***natural exposure or infection may prevent recurrent episodes of severe COVID-19.***" (Sekine et al., 2020)

7.11 Adverse events/Side effects & VAERS data analysis

The administration of the COVID shots has caused a significant increase in the expression of various serious conditions. Most prominent among these is cardiac inflammation (myocarditis). The literature below addresses some of these issues.

- This paper addresses **sick leave** following vaccination: "Among 1704 HCWs [Healthcare Workers] enrolled, 595 (34.9%) HCWs were on sick leave following at least one COVID-19 vaccination, leading to a total number of 1550 sick days. Both the ***absolute sick days and the rate of HCWs on sick leave significantly increased with each subsequent vaccination***. Comparing BNT162b2mRNA and mRNA-1273, the difference in sick leave was not significant after the second dose, but mRNA-1273 induced a "significantly longer and more frequent sick leave after the third." (Reusch et al., 2023)

- "In this systematic review and meta-analysis of 12 articles including AE [Adverse Event] reports for 45 380 trial participants, systemic AEs were experienced by 35% of placebo recipients after the first dose and 32% after the second. ***Significantly more AEs were reported in the vaccine groups, but AEs in placebo arms*** ("nocebo [negative expectations of the patient regarding a treatment lead to more negative effects from that treatment than would otherwise have been expected] responses") ***accounted for 76% of systemic AEs after the first COVID-19 vaccine dose and 52% after the second dose***." [**Interpretation:** While the nocebo effect appears to play a role, its impact diminishes with additional vaccinations, and the authors clearly address that there are significantly more adverse events reported in the vaccine group. However, this information appears to be ignored in the conclusion of their "Key Points" section of the article, where the authors solely focused on their findings indicating that "the rate of nocebo responses in placebo arms of COVID-19 vaccine trials was substantial. Interestingly, the authors report that "Headache, fatigue, malaise, and joint pain were common in both groups and seem to have been particularly associated with nocebo.", however these are not the side effects about which a significant concern has been expressed, given that these are side effects commonly felt after any vaccine!] (Haas et al., 2022)

7.11.1 A General Overview

The statement that covers the information below is simple: the benefits do not outweigh the cost. This section addresses the general analysis of available data, referring to other papers as well as data downloaded and analyzed by the author of this document.

- "Thus, for 6 (95% CI 2–11) deaths prevented by vaccination, there were approximately 4 deaths reported to Dutch Lareb that occurred after vaccination, yielding ***a potential risk/benefit ratio of 2:3***. **Conclusion:** Although causality between ICSRs and vaccination has not been established, these data indicate a lack of clear benefit, which should cause governments to rethink their vaccination policy." (Walach et al., 2021a)

  [NOTE: The Walach paper was originally published in the journal *Vaccines,* following peer review. A few days after it was published (seems rather fast), the paper was retracted. The retraction statement is shown in the image below (**B**). There is a significant element, in the retraction, that appears to be unprofessional and quasi-colloquial – certainly not the way you would write in a scientific journal. Additionally, it is clear that the biggest issue the editors had was the

potentially implied ***causal relationship*** between the ***vaccine and the adverse events*** reported through the ICSR (Individual Case Safety Reports). The editors state that the authors "were not able to" respond "satisfactorily" to the request for a response, and as a result the paper was retracted.

The authors then published the manuscript in *Science, Public Health Policy and the Law* (which is not peer reviewed). You will note, as quoted above and seen in the image below **(C)**, that it does not appear that the authors had any problems making a statement advising caution in relation to implying causality. So, the question is what is really going on here? Are the scientific journals censoring out what does not fit a specific narrative instead of seeking to investigate/address the truth?

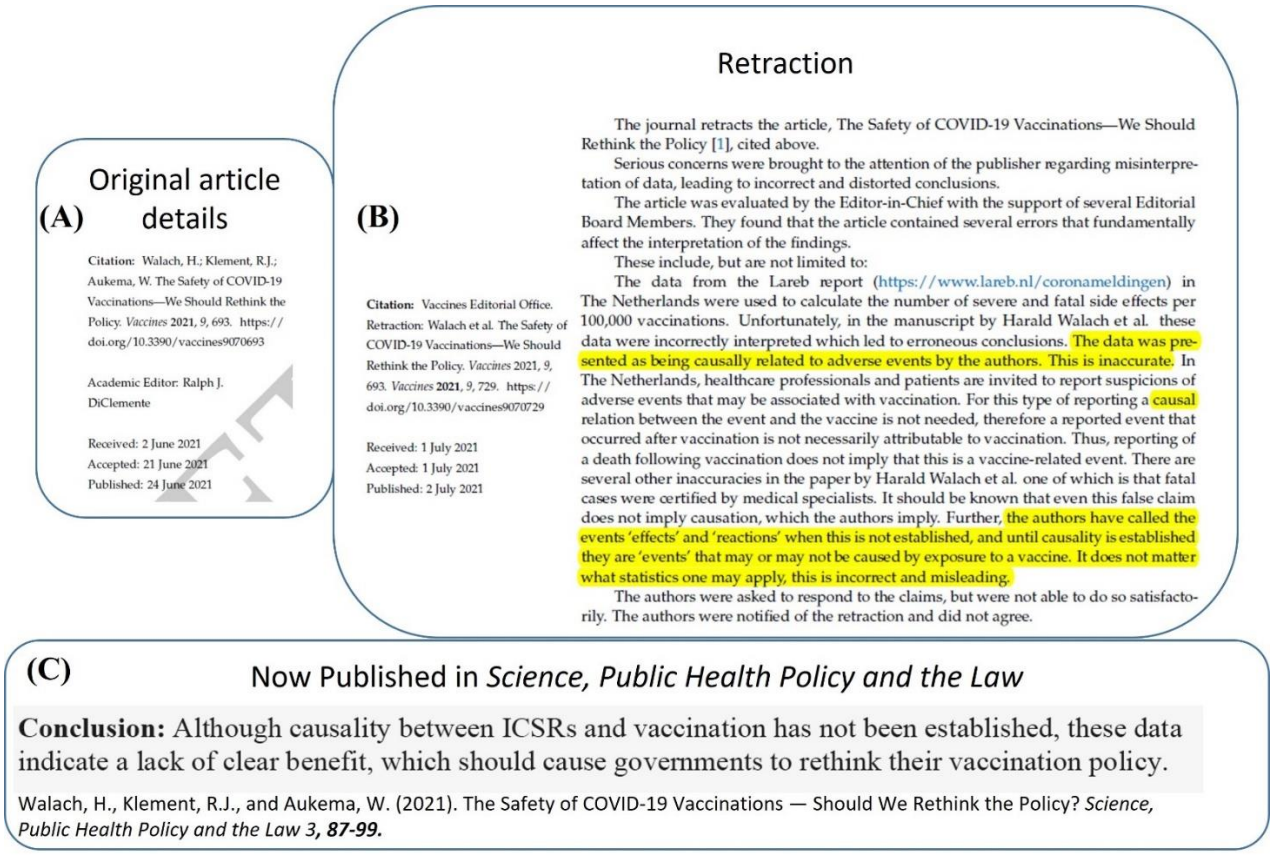


Figure 12: Walach et al, 2021 - (A) original publication information in the journal Vaccines. (B) publication date of retraction and retraction. (C) Conclusion statement from Walach et al, 2021, now published in Science, Public Health Policy and the Law.

- Data Sources:
  - In addition, the following website may also be of assistance in regards to adverse drug reaction reports: http://www.vigiaccess.org/
    1) **2,219,299** reports of adverse events from the **COVID-19 vaccines** have been reported (with the majority in 2021) – data accessed 10/10/2021
    2) Indicates higher risks of various side effects addressed below, from the vaccines.

- "VAERS [Vaccine Adverse Event Reporting System] data are limited to vaccine adverse event reports received between 1990 and the most recent date" **[NOTE: However, COVID vaccines became available ~late 2020/early 2021].**

    1) **Data can be downloaded from:** https://wonder.cdc.gov/vaers.html

- Percentages shown are ***COVID-19-vaccine-related reports*** as a percentage of all reports of the specific event for the listed vaccines included in the comparison/data extraction:

    - **Amenorrhea** (absence of a menstrual period in a woman of reproductive age) and **Dysmenorrhea** (pain during menstruation): **80%** ["These results are for 1,823 total events."]; ALL vaccines [Grouped by Vaccine type & not distinguishing between various manufacturers; Date of extraction: 09/17/21]

        1) These reports are not restricted to the US. "Changes to periods and unexpected vaginal bleeding are not listed, but primary care clinicians and those working in reproductive health are increasingly approached by people who have experienced these events shortly after vaccination. More than **30 000 reports** of these events had been made to MHRA's yellow card surveillance scheme for adverse drug reactions by 2 September 2021, across all covid-19 vaccines currently offered."(Male, 2021b)

        2) Knowledge in this field is, as in regards to most aspects relating to the COVID-19 vaccines, is significantly lacking "Although reported changes to the menstrual cycle after vaccination are short lived, robust research into this possible adverse reaction remains critical to the overall success of the vaccination programme…We are still awaiting definitive evidence…" (Male, 2021b)

        3) **NOTE**: please keep in mind that the normal menstruation is an inflammatory process which involves the immune system. Changes in the immune system function can lead to disturbances in the menstrual cycle (Berbic and Fraser, 2013).

        4) See above under **"*Potential toxicity of nanoparticles used in drug delivery*" under "*Potential for side effects beyond site of injection*" in relation to potential impact on male fertility.**

    - **Cardiac-related events**: **92%** [Comparison to DTAP, Hep B, MMR; Date of extraction: 06/02/21]

    - **Pericarditis; Myocarditis**: **72%** [Comparison to all vaccines; Date of extraction: 09/25/21]

        1) Despite the fact that these side effects have also been reported for other vaccines e.g. the tetanus vaccine (Dilber et al., 2003), the relative occurrence is significantly higher for the COVID-19 vaccines.

        2) "These findings suggest a markedly higher risk for myocarditis subsequent to COVID-19 injectable product use than for other known vaccines, and this is well above known background rates for myocarditis. COVID-19 injectable products are novel and have a genetic, pathogenic mechanism of action causing uncontrolled expression of SARS-CoV-2 spike protein within human cells. When you combine this fact with the temporal relationship of AE [Adverse Event] occurrence and reporting, biological plausibility of cause and effect, and the fact that these data are

internally and externally consistent with emerging sources of clinical data, ***it supports a conclusion that the COVID-19 biological products are deterministic for the myocarditis cases observed after injection***" (Rose and McCullough, 2021) [**NOTE**: currently listed by Retraction Watch as Temporarily Removed]

3) Additionally, when split by age the rates are as follows, indicating a higher vulnerability for younger recipients of the vaccine:

- 6-17 years 18.20%
- 18-29 years 27.86%
- 30-39 years 12.69%
- 40-49 years 8.98%
- 50-59 years 8.28%
- 60-64 years 4.04%
- 65-79 years 7.15%
- 80+ years 1.07%
- Unknown 4.71%

- **Any adverse event**: **66%** [Comparison to Flu vaccines; Date of extraction: 06/04/21]
- **Stroke**: 89% [Comparison to DTAP, Hep B, MMR, Flu; Date of extraction: 06/22/21]
- **Spontaneous Abortion**: **53%** [Comparison to all vaccines; Date of extraction: 09/20/21]

1) This contradicts the reports of safety in pregnant women (Male, 2021a)

2) Additionally, see Pfizer study (Pfizer) above, which indicates the potential for the vaccine lipid nanoparticles to be concentrated in the ovaries (among other organs).

3) Shimabukuro et al. (2021) and editorial comments by Riley (2021) on the same paper report:

- Adverse neonatal outcomes included preterm birth (**9.4%**)
- Small size for gestational age (**3.2%**)
- Congenital abnormalities (**2.2%**)
- Pregnancy losses (**13.9%**)
- **ISSUE**: Changes to original paper Shimabukuro et al. (2021) in relation to spontaneous abortion are interesting:
  - ***Original*** paper reports **12.6%** (104/827) spontaneous abortions
  - ***Correction*** states: "the "V-safe Pregnancy Registry" cell should have read "104," rather than "104/827 (12.6)‡" and the Associated double dagger footnote states "No denominator was available to calculate a risk estimate for spontaneous abortions, because at the time of this report, follow-up through 20 weeks was not yet available for 905 of the 1224 participants vaccinated within 30 days before the first day of the last menstrual period or in the first trimester. Furthermore, any risk estimate would need to account for gestational week–specific risk of spontaneous abortion."

- **ISSUE**: Changes to editorial comments by Riley (2021) are also interesting (**bolded information** was removed in correction):
  - ***Original*** editorial reports: "…a completed pregnancy, the pregnancy resulted in a spontaneous abortion in 104 (12.6%) and in stillbirth in 1 (0.1%); these percentages are ***well within the range expected as an outcome for this age group of persons whose other underlying medical conditions are unknown***."
  - ***Correction*** states: "Among 827 registry participants who reported a completed pregnancy, 104 experienced spontaneous abortions and 1 had a stillbirth,"
- Additionally, of significance for the low percentage from which the authors obtained their numbers, the authors also note that "only a small fraction (4.7%) have enrolled in the v-safe pregnancy registry"
- **ISSUE**: Suggestion to violate human rights? "This situation underscores the urgent need not only to include pregnant women in clinical trials," (Riley, 2021). Given the absence of sufficient pre-clinical investigation and evidence (i.e., experiments in animals), this suggestion is in violation of:
  - **Section 45 of the Code of Federal Regulations on the Protection of Human Subjects**: "§ 46.204 Research involving pregnant women or fetuses: Pregnant women or fetuses may be involved in research if all of the following conditions are met: (a) Where scientifically appropriate, preclinical studies, including studies on pregnant animals, and clinical studies, including studies on nonpregnant women, have been conducted and provide data for assessing potential risks to pregnant women and fetuses;"[41]
  - The **Helsinki Declaration section 21**: "Medical research involving human subjects must conform to generally accepted scientific principles, be based on a thorough knowledge of the scientific literature, other relevant sources of information, and adequate laboratory and, as appropriate, animal experimentation."[42]
  - The **Nuremberg Code**: "The experiment should be so designed and based on the results of animal experimentation and a knowledge of the natural history of the disease or other problem under study that the anticipated results justify the performance of the experiment."[43]

4) Spontaneous abortion is also the highest reported adverse event (58%) for the COVID-19 vaccines within the section "Pregnancy, puerperium and perinatal conditions" on the VigiAccess™ website (accessed 10/10/2021)

[41] https://www.hhs.gov/ohrp/regulations-and-policy/regulations/45-cfr-46/common-rule-subpart-b/index.html#46.204
[42] https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/
[43] http://www.cirp.org/library/ethics/nuremberg/

- **28.6%** of ALL side effects reported ["These results are for 1,130,123 total events."]; ALL vaccines [Grouped by Vaccine type & not distinguishing between various manufacturers: 95 vaccines; Date of extraction: 07/17/21]

7.11.2 Myocarditis

- "Vaccinated patients showed higher myocardial FDG uptake [technique used for noninvasive diagnosis of myocardial inflammation] on PET/CT compared to nonvaccinated patients regardless of sex, age, or type of mRNA vaccine received."(Nakahara et al., 2023)
- Abstract: "Cases of myocarditis, diagnosed clinically by laboratory tests and imaging have been described in the context of mRNA-based anti-SARS-CoV-2 vaccination…We describe the autopsy findings and common characteristics of myocarditis in untreated persons who received anti-SARS-CoV-2 vaccination. Standardized autopsies were performed on 25 persons who had ***died unexpectedly and within 20 days after anti-SARS-CoV-2 vaccination***. In four patients who received a mRNA vaccination, we identified acute (epi-) myocarditis without detection of another significant disease or health constellation that may have caused an unexpected death. Histology showed patchy interstitial myocardial T-lymphocytic infiltration, predominantly of the CD4 positive subset, associated with mild myocyte damage. Overall, autopsy findings indicated death due to acute arrhythmogenic cardiac failure. Thus, ***myocarditis can be a potentially lethal complication following mRNA-based anti-SARS-CoV-2 vaccination***…" (Schwab et al., 2022)
- Patone et al. (2022)
  - "Associations [to a risk of myocarditis] were stronger in men younger than 40 years for all vaccines. ***In men younger than 40 years old***, the number of excess myocarditis events per million people was higher after a second dose of mRNA-1273 than after a positive SARS-CoV-2 test…"
  - "However, ***the risk of myocarditis after vaccination is higher in younger men, particularly after a second dose of the mRNA-1273 vaccine***."
  - [**Limitations:** There are some limitations to this study: The study is limited to 28 days after vaccination; While the study makes statements addressing lower risks than "after a positive SARS-CoV-2 test", the subjects in the study are described as being "13 years or older vaccinated for COVID-19" i.e. the study does not appear to have a control unvaccinated group, yet it makes assertions that "the risk of hospitalization or death from myocarditis after SARS-CoV-2 infection is substantially higher than the risk associated with a first dose of ChAdOx1, and a first, second, or booster dose of BNT162b2 mRNA vaccine]
- Le Vu et al. (2022)
  - "The ***largest associations are observed for myocarditis following mRNA-1273 vaccination in persons aged 18 to 24 years***. Estimates of excess cases attributable to vaccination also reveal ***a substantial burden of both myocarditis and pericarditis across other age groups and in both males and females***."
  - "***The risk of myocarditis was substantially increased within the first week post vaccination in both males and females*** (Fig. 1 and Table S2). Odds-ratios associated with the second dose of the mRNA-1273 vaccine were consistently the highest, with values up to ***44*** (95% CI, 22–88) and ***41*** (95% CI, 12–140), respectively in ***males and females aged 18 to 24 years*** but remaining high in older age groups."

- "Odds-ratios for the ***second dose*** of the BNT162b2 vaccine tended to decrease with age, from 18 (95% CI, 9–35) and 7.1 (95% CI, 1.5–33), respectively in males and females aged 12 to 17 years, down to 3.0 (95% CI, 1.5–5.9) and 1.9 (95% CI, 0.39–9.3), respectively in males and females aged 40 to 51 years."

- "Results of this large cohort study indicated that ***both first and second doses of mRNA vaccines were associated with increased risk of myocarditis and pericarditis***." (Karlstad et al., 2022)

- "***An increase of over 25%*** was detected in both call types [related to cardiovascular adverse conditions] during January–May 2021, compared with the years 2019–2020. Using Negative Binomial regression models, the weekly emergency call counts were ***significantly associated with the rates of 1st and 2nd vaccine doses*** administered to this age group ***but were not with COVID-19 infection rates***." (Sun et al., 2022)

- "Of those with myocarditis, the ***median age was 21 years*** (IQR, 16-31 years) and the median time to symptom onset was 2 days (IQR, 1-3 days). ***Males comprised 82%*** of the myocarditis cases for whom sex was reported. The crude reporting ***rates for cases of myocarditis within 7 days after COVID-19 vaccination exceeded the expected rates of myocarditis across multiple age and sex strata***. The rates of myocarditis were ***highest after the second vaccination dose in adolescent males*** aged 12 to 15 years (70.7 per million doses of the BNT162b2 vaccine), in adolescent males aged 16 to 17 years (105.9 per million doses of the BNT162b2 vaccine), and in young men aged 18 to 24 years (52.4 and 56.3 per million doses of the BNT162b2 vaccine and the mRNA-1273 vaccine, respectively)." (Oster et al., 2022)

Age	2nd Dose	2nd Dose	Expected	Rate of Myocarditis	
	Pfizer	Moderna	Cases	Pfizer	Moderna
12-15	70.73	-	0.53	133	-
16-17	105.86	-	1.34	79	-
18-24	52.43	56.31	1.76	30	32
25-29	17.28	24.18	1.45	12	17
30-39	7.10	7.93	0.63	11	13
40-49	3.50	4.27	0.78	4	5
50-64	0.68	0.85	0.77	1	1

Table 3:Using data from Table 2 in Oster et al, 2022, rates of myocarditis are reported comparing 2nd dose of Pfizer and Moderna "vaccines" relative to expected rates. The number shown in the rate column reflects the number of times more that myocarditis is reported.

- "This retrospective case series studied patients within the US Military Health System who experienced myocarditis after COVID-19 vaccination between January and April 2021…***In this case series, myocarditis occurred in previously healthy military patients with similar clinical presentations following receipt of an mRNA COVID-19 vaccine***." (Montgomery et al., 2021)

- Patone et al. (2021)

  - "We estimate that the absolute number of excess ***myocarditis*** events in the 28 days following a first dose of adenovirus or mRNA vaccine is between one and six per million persons vaccinated, and the excess risk following the second dose of the mRNA-1283 vaccine is ten per million. By contrast, we estimate 40 excess myocarditis events per million in the 28 days following SARS-CoV-2 infection." [**Interpretation**: there is a

substantially higher chance of myocarditis following infection than vaccination. However, from my reading, while the authors indicate a balanced sample in terms of those reporting previous cardiac inflammation reports "in the previous 2 years", there is no indication of how similar/balanced the sample was in relation to other comorbidities e.g. obesity, diabetes etc. i.e. Did the positive-SARS-CoV-2 test sample have higher numbers of people with non-cardiac related, but pre-disposing comorbidities?]

- "Our findings are relevant to the public, clinicians and policy makers. First, there was an increase in the risk of myocarditis within a week of receiving the first dose of both adenovirus and mRNA vaccines, and a higher increased risk after the second dose of both mRNA vaccines…Third, the ***increased risk of myocarditis after vaccination was higher in persons aged under 40 years***." [**NOTE**: this is a group that has an average fatality rate from COVID-19 of ~0.01% (calculated from O'Driscoll et al. (2021) taking the average of the percentages for ages less than 40)]

- "The unadjusted incidence rate of confirmed cases of ***GBS [Guillain-Barre syndrome]*** per 100,000 person-years in the 1-21 days after Ad.26.COV2.S was ***34.6*** (95% confidence interval [CI]: 15.8-65.7), ***significantly higher than the background rate***, and the adjusted RR [rate ratio] in the 1-21 vs. 22-42 days following Ad.26.COV2.S [Janssen] was ***6.03*** (95% CI: 0.79-147.79). Thirty-four cases of GBS after mRNA vaccines were confirmed. The unadjusted incidence rate of confirmed cases per 100,000 person-years in the 1-21 days ***after mRNA vaccines*** was ***1.4*** (95% CI: 0.7-2.5) and the adjusted RR in the 1-21 vs. 22-42 days following mRNA vaccines was 0.56 (95% CI: 0.21-1.48). In a ***head-to-head comparison of Ad.26.COV2.S vs. mRNA vaccines***, the adjusted RR was ***20.56*** (95% CI: 6.94-64.66). [**Interpretation**: Higher possibility of developing Guillain-Barre Syndrome with Janssen/Johnson & Johnson vaccine] (Hanson et al., 2021)

- "The incidence of myocarditis, although low, increased after the receipt of the BNT162b2 vaccine, particularly after the second dose among young male recipients." (Mevorach et al., 2021)

- Other studies also report incidences of myocarditis and other side effects resulting from the vaccine BNT162b2 (Barda et al., 2021;Witberg et al., 2021) and higher incidences in younger males (Witberg et al., 2021). The Barda study (2021) reports significantly higher negative effects from SARS-CoV-2 infection in the unvaccinated:

  - risk ratio for myocarditis in ***vaccinated*** of **3.24** (95% confidence interval [CI], 1.55 to 12.44) [risk ratio (RR) "tells us how many times more likely the outcome occurs among people with the risk factor (or exposure)" (Viera, 2008) – for interpretation multiply by 100 i.e. 324 times more likely to occur];

  - risk ratio for myocarditis following ***SARS-CoV-2 infection*** of 18.28 (95% CI, 3.95 to 25.12).

  - **ISSUE:** Study removes people with the combination of SARS-CoV-2 infection + Vaccination ("In the vaccination analysis, so as not to attribute complications arising from SARS-CoV-2 infection to the vaccination (or lack thereof), we also censored data on the matched pair if and when either member received a diagnosis of SARS-CoV-2 infection. Similarly, in the SARS-CoV-2 infection analysis, we censored data on the matched pair if and when either member was vaccinated."). Therefore, the study does not address the likelihood of events (e.g. myocarditis) in those vaccinated AND infected (i.e. in the case of breakthrough infections).

- This is a follow up to the Barda et al. (2021)study mentioned above. The authors were requested to further breakdown and analyze the data by age and sex. This was provided in a letter to the editor of the NEJM, in addition to supplementary documents. The issue addressed above in relation to the paper remains: "After vaccination, the risk was increased mostly among young male adolescents and adults (16 to 39 years of age), with 8.62 excess events per 100,000 persons (95% confidence interval [CI], 2.82 to 14.35). After infection, the risk was increased in both age categories (<40 and ≥40 years) and in both male and female adolescents and adults, with 11.54 excess events per 100,000 persons (95% CI, 2.48 to 22.55) in young male adolescents and adults." (Dagan et al., 2021) [**NOTE:** In relation to confidence intervals (CI), the larger the CI for a particular estimate, the more caution is necessary when using the estimate.]

7.11.3 Reproductive System-Related Side Effects

- Lee et al. (2022)
  - "In this sample, ***42% of people with regular menstrual cycles bled more heavily than usual***, while 44% reported no ***change after being vaccinated***. Among ***respondents who typically do not menstruate***, ***71%*** of people on ***long-acting reversible contraceptives***, ***39%*** of people on ***gender-affirming hormones***, and ***66%*** of ***postmenopausal people*** reported ***breakthrough bleeding***. We found that increased/breakthrough bleeding was significantly associated with age, systemic vaccine side effects (fever and/or fatigue), history of pregnancy or birth, and ethnicity. Generally, changes to menstrual bleeding are not uncommon or dangerous, yet attention to these experiences is necessary to build trust in medicine."
- Gat et al. (2022):
  - Definition of time points: **T0** = "**pre-vaccination baseline control**"; "**T1, T2 and T3 – short, intermediate, and long-term evaluations, after 15-45, 75-150, and over 150 days after the vaccination date, respectively**"
  - "Objective: To investigate the effect of covid-19 BNT162b2 (Pfizer) vaccine on semen parameters among semen donors (SD)"
  - Results:
    - *"**15.4% sperm concentration decrease*** on T2 (CI -25.5%--3.9%, p=0.01) leading to ***total motile count 22.1% reduction*** (CI -35% - -6.6%, p=0.007) compared to T0."
    - The authors also report **significant reductions** in:
      - **First sample per donor** in each time point (*Table 3*)
        - Sperm concentration reduction on T2 compared to T0 (p=0.02)
        - Sperm motility reduction on T2 compared to T0 (p=0.002)
      - **Samples' mean per donor** in each time frame (*Table 4*)
        - Sperm concentration reduction on T2 compared to T0 (p=0.004)
        - Sperm motility reduction on T2 compared to T0 (p=0.003)
    - While the authors claim that ***"T3 [i.e. "long-term] evaluation demonstrated overall recovery. Semen volume and sperm motility were not impaired***.", *Table 2* appears

to indicate a **substantial reduction** in both Sperm concentration (15.9% reduction) and Total Motile Count (19.4% reduction). Based on the confidence intervals, while the changes are accurately reported to be non-significant, it appears that the data may have at least been tending towards significance. What this means is that the differences may have been nearly significant. One factor that could potentially impact this could be a need for a larger sample size.

- "Coronavirus disease 2019 (COVID-19) vaccination is associated with a small change in cycle length but not menses length." (Edelman et al., 2022)
- Brock and Thornley (2021)
  - "…draw attention to these errors [in the Shimabukuro (2021) paper] and recalculate the risk of this outcome based on the cohort that was exposed to the vaccine before 20 weeks' gestation. ***Our re-analysis indicates a cumulative incidence of spontaneous abortion 7 to 8 times higher than the original authors' results*** ($p < 0.001$) and the typical average for pregnancy loss during this time period."
  - "The study indicates that at least ***81.9% (≥ 104/127) experienced spontaneous abortion following mRNA exposure before 20 weeks, and 92.3% (96/104) of spontaneous abortions occurred before 13 weeks' gestation*** …This is a very high proportion of pregnancy loss observed in those exposed to the mRNA vaccination before 20 weeks' gestation, ranging from 81.9–91.2%,…Considering the evidence presented here, we suggest the **immediate withdrawal of mRNA vaccine use in pregnancy (Category X)[41] and those breastfeeding, alongside the withdrawal of mRNA vaccines to children or those of child-bearing age in the general population** [emphasis not mine], until more convincing data relating to the safety and long-term impacts on fertility, pregnancy and reproduction are established in these groups."
- "Ang II [angiotensin II], ACE [angiotensin-converting enzyme] 2 and Ang-(1-7) regulate follicle development and ovulation, modulate luteal angiogenesis and degeneration, and also influence the regular changes in endometrial tissue and embryo development. Taking these functions into account, 2019-nCoV may disturb the female reproductive functions through regulating ACE2." (Jing et al., 2020) [**NOTE:** These findings impacting fertility and embryo development, in addition to the increasingly evident wide distribution of the mRNA-containing nanoparticles in the "vaccines"/gene therapies, appear to further corroborate the observed higher levels of spontaneous abortions, impacts on menstruation, etc. and support a potential link to increased infertility as a result of the COVID-19 "vaccines".]

7.11.4 Increased Predisposition to Other Diseases

- Furer et al. (2021)
  - "The objective of this report is to raise awareness of reactivation of ***herpes zoster*** (HZ) following the BNT162b2 mRNA vaccination in patients with AIIRD [autoimmune inflammatory rheumatic diseases]" (Note: "The risk of HZ infection in the AIIRD population is increased compared with the general population")
  - "The close temporal association between COVID-19 vaccination and the first reactivation of the latent zoster infection poses a question of a potential causality between both events vs a pure coincidence."

- ***Creutzfeldt-Jakob Disease*** (CJV):
  - "Creutzfeldt–Jakob disease, a spongiform encephalopathy caused by prions, is characterized by a severe neurological destruction, which has an extremely high mortality." (Kuvandık et al., 2022)
  - Kuvandık et al. (2022) describe a case report of CJV following the reception of the COVID-19 vaccine. The authors report that the patient "was admitted to the Pamukkale University Anesthesiology Intensive Care Units with the neurological findings ***that developed after the COVID-19 vaccine*** (CoronaVac, Sinovac Life Sciences, Beijing, China). The patient ***died due to the progressive neurological disorders***. In cases where rapidly progressive neurological disorders are observed, Creutzfeldt–Jakob disease should be considered and the role of immunity-related conditions in the progression of the disease should be investigated."
  - Perez et al. (2022)
    - "highlight the presence of a ***Prion region in the different Spike proteins of the original SARS-CoV2 virus*** as well as of all its successive ***variants*** but also of all the ***"vaccines"*** built on this same sequence of the Spike SARS-CoV2 from Wuhan."
    - The prion region is reported to have a "a ***density of mutations 8 times greater than that of the rest of the spike***, the possible harmfulness of this Prion region ***disappears completely in the Omicron variant***"
    - The authors also analyze "the concomitance of cases, which occurred in various European countries, between the first doses of Pfizer or Moderna mRNA vaccine and the sudden and rapid onset of the first symptoms of Creutzfeldt-Jakob disease, which usually requires several years before observing its first symptoms."
    - "***In a few weeks, more 50 cases of almost spontaneous emergence of Creutzfeldt-Jakob disease have appeared in France and Europe very soon after the injection of the first or second dose of Pfizer, Moderna or AstraZeneka vaccines***."
    - "To summarize, of the 26 cases analyzed, the first symptoms of CJD appeared on average 11.38 days after the injection of the COVID-19 "vaccine". Of these 26 cases, 20 had died at the time of writing this article while 6 were still alive. The 20 deaths occurred only 4.76 months after the injection. Among them, 8 of them lead to a sudden death (2.5 months). All this confirms the ***radically different nature of this new form of CJD, whereas the classic form requires several decades***."
- Reiken et al. (2022) report:
  - "Discussion: ***COVID-19 neuropathology includes AD-like [Alzheimer's Disease-Like] features*** and leaky RyR2 channels could be a therapeutic target for amelioration of some cognitive defects associated with SARS-CoV-2 infection and long COVID."
  - [**Comments/Questions:** Given the conclusion of the authors as well as considering:
    1. the material addressed in various sections of this document,
    2. what we know about the pathology of COVID,

3. the role of the spike protein in the disease including:
    - its interaction with the ACE2 receptor (Kuhn et al., 2004;Jackson et al., 2021;Xia, 2021) which can impact mental health (Raony et al., 2020)
    - its capacity to alter the barrier function of the blood-brain barrier (Buzhdygan et al., 2020;Zhang et al., 2021c)
    - its capacity to cross the blood-brain barrier (Rhea et al., 2021;Zhang et al., 2021c)
    - its capacity to impact neurodegeneration, through the inflammatory response, through a common pathway impacted by implemented measures such as social isolation etc., potentially exacerbating neuronal degeneration (Raony et al., 2020)

Why…

- Administer viral genetic material encapsulated in nanoparticles that have the potential to cross the blood-brain barrier (Wang et al., 2018) and the potential to damage nerves (Merchant, 2021)?
- Consider and investigate the use of administering the "vaccines"/gene therapies via the nasal route (using a spray) (Rubin, 2021), especially when we know that this route is able to bypass the blood-brain barrier (Wang et al., 2019) and therefore increase the risk of detrimental consequences on the central nervous system?
- ….and so many more questions.

- "Using surveillance results from Dec 14, 2020, to Aug 31, 2021, we identified 21 individuals with MIS-C [***Multisystem inflammatory syndrome*** in children] after COVID-19 vaccination. Of these 21 individuals, median age was 16 years (range 12–20); 13 (62%) were male and eight (38%) were female. All 21 were hospitalised: 12 (57%) were admitted to an intensive care unit and all were discharged home. 15 (71%) of 21 individuals had laboratory evidence of past or recent SARS-CoV-2 infection, and six (29%) did not. As of Aug 31, 2021, 21 335 331 individuals aged 12–20 years had received one or more doses of a COVID-19 vaccine, making the overall reporting rate for MIS-C after vaccination 1.0 case per million individuals receiving one or more doses in this age group. The reporting rate in only those without evidence of SARS-CoV-2 infection was 0.3 cases per million vaccinated individuals…Continued surveillance for MIS-C illness after COVID-19 vaccination is warranted, especially as paediatric COVID-19 vaccination is authorised and recommended for ***younger children who comprise the highest proportion of MIS-C cases after SARS-Cov-2 infection***" (Yousaf et al., 2022)

- "In this paper, we present the evidence that ***vaccination, unlike natural infection, induces a profound impairment in type I interferon signaling, which has diverse adverse consequences to human health***. We explain the mechanism by which immune cells release into the circulation large quantities of exosomes containing spike protein along with critical microRNAs that induce a signaling response in recipient cells at distant sites. We also identify potential profound disturbances in regulatory control of protein synthesis and cancer surveillance. ***These disturbances are shown to have a potentially direct causal link to neurodegenerative disease, myocarditis, immune thrombocytopenia, Bell's palsy, liver disease, impaired adaptive immunity, increased tumorigenesis, and DNA damage.*** We show evidence from adverse event reports in the VAERS database supporting our hypothesis. We believe a comprehensive risk/benefit assessment of the mRNA vaccines excludes them as positive contributors to public health, even in the context of the Covid-19 pandemic." (Seneff et al., 2022)

- "These findings suggest a ***potential small but statistically significant*** safety concern for ***Guillain-Barre syndrome*** following receipt of the Ad26.COV2.S vaccine." (Woo et al., 2021) [**NOTE:** If the CDC can claim that masks work with a small (1.8% max) reduction in the spread of COVID-19 because it is significant, then this information relating a "small but statistically significant" concern should be given just as much attention. Also of note, given the push to vaccinate younger people, the authors note: "…the observed to expected rate ratio was elevated in all age groups except individuals aged 18 through 29 years."]

- **Vaccine-induced psychosis:** Flannery et al. (2021) report about a "case of anti-NMDAR encephalitis complicating SARS-CoV2 vaccination in a previously healthy young woman" that resulted in psychosis. **[NOTE: Anti-NMDAR encephalitis – Background**: The NMDA receptor is one of the fundamental receptors in the brain and regulate alertness, wakefulness, learning, memory etc. The fact that the natural normal receptor in the brain is being attacked reflects an auto-immune response – that is that the body's immune system is recognizing the normal/natural receptor as a foreign body. Once thought to primarily affect adult women and associated with the presence of tumors, it has come to be recognized in children, in males and in the absence of tumors (Chapman and Vause, 2011). Given the significant role of this receptor, significant psychosis, among many other effects, can result with anything that causes it to be dysfunctional.]

- Also see letter by **Dr. Patricia Lee**[44] (who is a "licensed physician practicing in the state of California", obtained her "medical degree from University of Southern California", received her "post-graduate training at Georgetown University and Harvard-affiliated hospitals", doctor for more than twenty years, and is fully vaccinated) to **Dr. Marks, Director of the FDA** and **Dr. Shimabukuro on the COVID-19 Vaccine Task Force of the CDC** regarding her **experience** treating ICU patients and how it "***does not comport with claims made by federal health authorities regarding the safety of Covid-19 vaccines***" . In the letter she expresses how she feels "***compelled by conscience to state the facts as I observe them on the frontlines***". Despite all her background and experience she states that she has "***never witnessed so many vaccine-related injuries until this year***".

- Title: "Comprehensive investigations revealed ***consistent pathophysiological alterations after vaccination with COVID-19 vaccines***". In the Abstract: "…besides generation of neutralizing antibodies, consistent alterations in hemoglobin A1c, serum sodium and potassium levels, coagulation profiles, and renal functions in healthy volunteers after vaccination with an inactivated SARS-CoV-2 vaccine. ***Similar changes had also been reported in COVID-19 patients, suggesting that vaccination mimicked an infection***…our study recommends additional caution when vaccinating people with pre-existing clinical conditions, including diabetes, electrolyte imbalances, renal dysfunction, and coagulation disorders." (Liu et al., 2021a) [**Interpretation:** vaccine causing similar problems to disease]

7.11.5 Autoimmune disease

- **Definition:** "The diverse immune system developed to fulfil the primary function of protecting hosts from infectious agents…The failure to distinguish self from nonself is often termed a breach of tolerance and is the basis for autoimmune disease" (Wang et al., 2015)

[44] https://childrenshealthdefense.org/wp-content/uploads/Letter-Regarding-Covid-19-Vaccine-Injuries-Dr-Patricia-Lee.pdf

- With time we are seeing an increase in reports of a dysfunctional immune system (e.g. cancer[45], Type I diabetes[46]) following COVID-19 "vaccination". Some of these reports are addressed in this section and include, but are not limited to, autoimmune disorders (e.g. Type I diabetes).
- SARS-CoV-2 has been reported to trigger an autoimmune response (Liu et al., 2021b)
- COVID-19 vaccine reported to be potentially linked to autoimmune disorder Guillain-Barré syndrome (immune cells attack nervous system) (Dyer, 2021)
- Merchant (2021)in a Rapid Response to the editor relating to the Dyer paper reports that:
    - "Study 514559 showed that the Covid vaccine AZ was ***distributed to sciatic nerves in almost all animals*** and the distributed fractions ***did not clear*** throughout the study. The last sample was taken on 29 days post-administration and sciatic nerves of 70% of animals were still tested positive at the end of the study. The vaccine distribution to the sciatic nerves may lead to conditions like sciatica that has been previously linked to the viral infection of the sciatic nerve, such as herpes."
    - "The biodistribution of the vaccine to other nerves is ***not known*** as the study 514559 checked for sciatic nerves only being anatomically closer to the injection site (hind limb) in mice. The facial(cranial) nerves, on the contrary, are anatomically closer to the vaccine injection site in humans (deltoid muscle)." While the response does not directly make the direct link, it does state that "The MHRA database listed ~1031 cases of ***facial cranial nerve disorders*** (527cases of Bell's palsy and 457 cases of facial paresis/paralysis), 20 cases of ***Miller Fisher syndrome*** [similar to Guillain-Barre syndrome] and additional 372 cases of ***Guillain-Barre syndrome*** (2 fatal) following AZ vaccine up until 28th July 2021."
    - "The biodistribution (study 514559) also ***evidenced the vaccine distribution via blood circulation*** to other tissues notably ***bone marrow, liver, mammary glands and spleen***. The vaccine encoded gene transfection to distant tissues is likely to attract an immune response against various body tissues that can manifest into various autoimmune conditions."
    - "These autoimmune responses may well be transient in many healthy subjects, and the immune response is likely to be very selective towards vaccine transfected cells only, however, the possibility of developing a chronic autoimmune condition in some individuals cannot be overruled"
- "The reactogenicity of COVID-19 mRNA vaccine in individuals suffering from immune-mediated diseases and having therefore a pre-existent dysregulation of the immune response has not been investigated." (Talotta, 2021)
- "…we hypothesize that, even though, COVID-19 vaccination does not provoke de novo immune mediated adverse events, it is possible that, the immunologic response triggers pre-existing underlying dysregulated pathways." (Akinosoglou et al., 2021)
- "Vaccine-associated autoimmunity is a well-known phenomenon attributed to either the cross-reactivity between antigens or the effect of adjuvant [3]. When coming to COVID-19 vaccine, this

[45] https://www.theepochtimes.com/children-in-china-contract-leukemia-after-taking-chinese-vaccines_4332657.html
[46] https://www.theepochtimes.com/children-in-china-diagnosed-with-diabetes-after-getting-chinese-covid-19-vaccines_4532605.html

matter is further complicated by the nucleic acid formulation and the accelerated development process imposed by the emergency pandemic situation [4].” (Talotta, 2021)

- Vojdani and Kharrazian (2020)
  - “There are reasons for all the precautions involved in developing a vaccine, not the least of which are unwanted side-effects. In light of the information discussed above about the cross-reactivity of the SARS-CoV-2 proteins with human tissues and the possibility of either inducing autoimmunity, exacerbating already unhealthy conditions, or otherwise resulting in unforeseen consequences, it would only be prudent to do more extensive research regarding the autoimmune-inducing capacity of the SARS-CoV-2 antigens.”
  - “…our own findings that 21 out of 50 tissue antigens had moderate to strong reactions with the SARS-CoV-2 antibodies are a sufficiently strong indication of ***cross-reaction between SARS-CoV-2 proteins and a variety of tissue antigens beyond just pulmonary tissue***, ***which could lead to autoimmunity against connective tissue and the cardiovascular, gastrointestinal, and nervous systems.***”
- “This letter addresses the issue of why SARS-CoV-2 attacks the respiratory system and reports on a vast ***peptide sharing between SARS-CoV-2 spike glycoprotein and surfactant-related proteins***… results suggest that immune responses following SARS-CoV-2 infection might lead to cross-reactions with pulmonary surfactant and related proteins, and might contribute to the SARS-CoV-2-associated lung diseases. ***The data warn against using vaccines based on entire SARS-CoV-2 antigens to fight SARS-CoV infections***, and highlight peptide uniqueness as a molecular concept for effective anti-CoV immunotherapy”(Kanduc and Shoenfeld, 2020)

7.12 Additional concerns

- The Perseus Group (The Perseus Group, 2023) and World Council for Health (World Council For Health, April 20, 2023;September 5, 2023) have expressed their concern in relation to “current regulatory system for drug approvals in general and the Covid-19 vaccines in particular, and the significant safety issues that result”:

- The Perseus Group (2023)
  - “It has become clear during the Covid-19 pandemic that the MHRA [Medicines and Healthcare products Regulatory Agency] has failed to meet its responsibilities in multiple ways, despite prior warnings of inadequate regulation published in Government reports:
    - no requirement for manufacturers to demonstrate sufficient safety, before or after approvals;
    - approvals for younger age groups and children in the absence of long-term safety data, despite only negligible potential for benefit;
    - failure to act promptly on evidence of adverse reactions, to rigorously assess safety evidence and to share it publicly to enable informed consent;
    - failure to identify and address problems with manufacturing and quality control.”
  - “Given the level of reported Covid-19 vaccine injuries and the excess deaths across all age groups, these products must be paused while they are properly investigated, and a full independent inquiry launched into MHRA’s regulatory processes and performance.”

- World Council For Health (September 5, 2023)
  - "The number of vaccines given to babies and children has increased dramatically without the necessary due diligence by regulatory authorities. Parents are urged to adopt a common-sense, 'Safer to Wait" approach."

7.13 What is in the "vaccines"?

There have been numerous claims of foreign material in the COVID-19 "vaccines". Concerns have been raised, in this regard, even in relation to the strange "clots" (it is difficult to call them blood clots because there do not seem to be blood clots, and from reports I have come across, they appear to be resistant to blood thinners). Below is some information pertaining to papers reporting about the contents of the COVID-19 "vaccines".

- "In the present study we analyzed with a dark-field optical microscope the peripheral blood drop from 1,006 symptomatic subjects after inoculation with an mRNA injection (Pfizer/BioNTech or Moderna), starting from March 2021. There were 948 subjects (94% of the total sample) whose ***blood showed aggregation of erythrocytes and the presence of particles of various shapes and sizes of unclear origin one month after the mRNA inoculation***. ***In 12 subjects, blood*** was examined with the same method ***before vaccination, showing a perfectly normal hematological distribution***. The alterations found after the inoculation of the mRNA injections further ***reinforce the suspicion that the modifications were due to the so-called "vaccines" themselves***." (Benzi Cipelli et al., 2022) [See https://ijvtpr.com/index.php/IJVTPR/article/view/47 for images]

- "Between July 2021 and August 2022, evidence of undisclosed ingredients in the COVID-19 "vaccines" was published by at least ***26 researchers/research teams in 16 different countries across five continents using spectroscopic and microscopic analysis***…***The blood of people who have received one or more COVID-19 "vaccines" appears***, in case after case, to ***contain foreign bodies and to be seriously degraded***, with red blood cells typically in Rouleaux formation. Taken together, these 26 studies make a powerful case for the full force of scientific investigation to be brought to bear on the COVID-19 "vaccine" contents. ***If the findings of these 26 studies are confirmed, then the political implications are nothing short of revolutionary: a global crime against humanity has been committed, in which every government, every regulator, every establishment media organization, and all the professions have been complicit.***" (Hughes, 2022)

7.14 Swabs under a microscope

Numerous claims have been made with regards to differences between regular/standard swabs and the COVID swabs. I managed to acquire a sample of both and took the following images using a compound microscope. Differences can be seen, especially at the highest magnification. Please make your own conclusions.

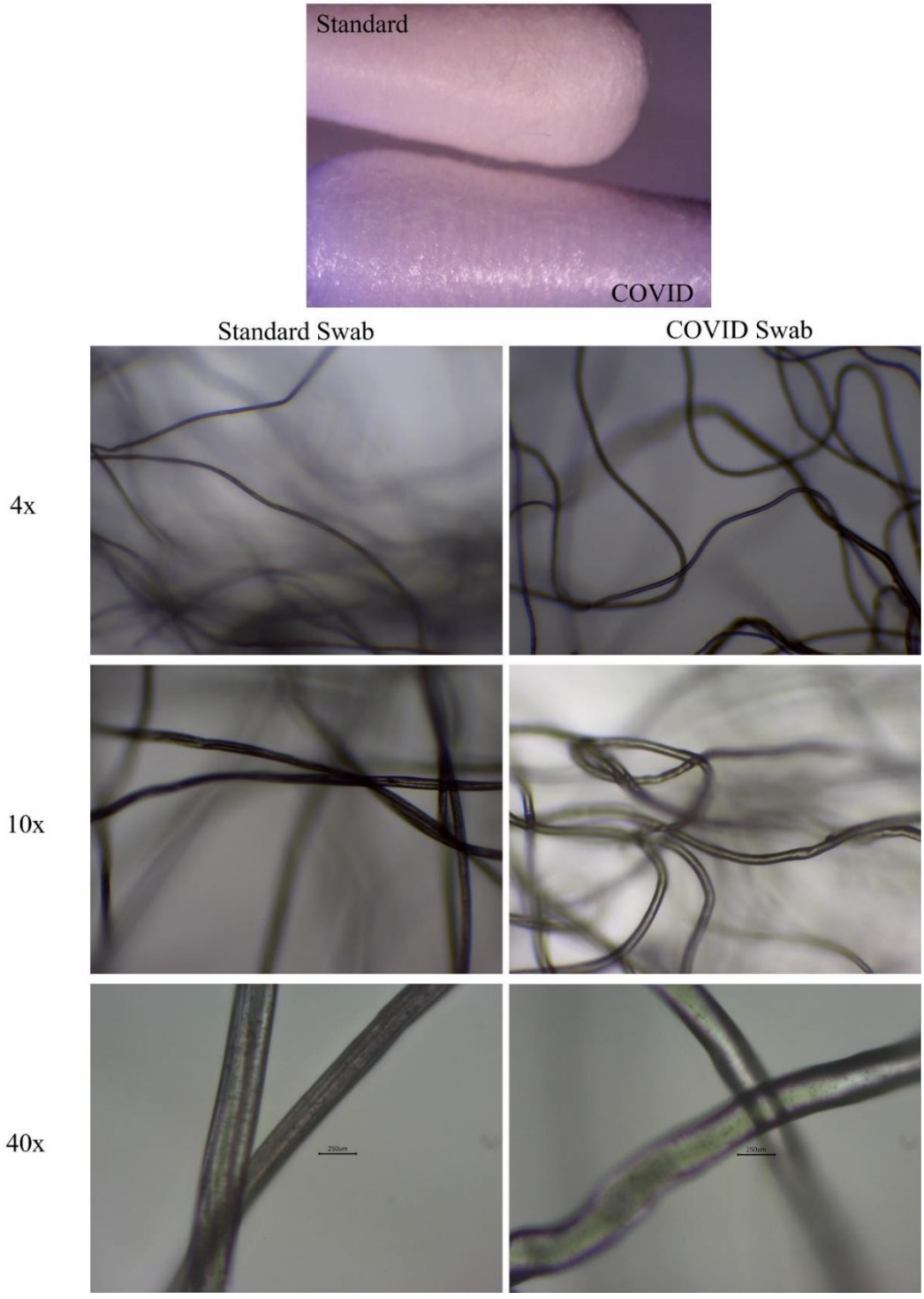


*Figure 13: Swab images at various magnifications taken with a compound microscope. Additional information: Standard swab was sterilized using **irradiation** (R). COVID swabs were sterilized using **Ethylene Oxide** (EO). For additional information please contact author.*

7.15 COVID-19 "Vaccine"-associated Revenue

There is nothing wrong with legitimate profits. However, there is a problem when money is made at the cost of humanity. The data below is plotted from the quarterly reports put out by Pfizer. The links are provided below. There is something rather disturbing when one observes the stability of revenue associated with the various pharmaceutical/medical products provided by Pfizer over the various quarters reported, until the COVID-19 "outbreak".

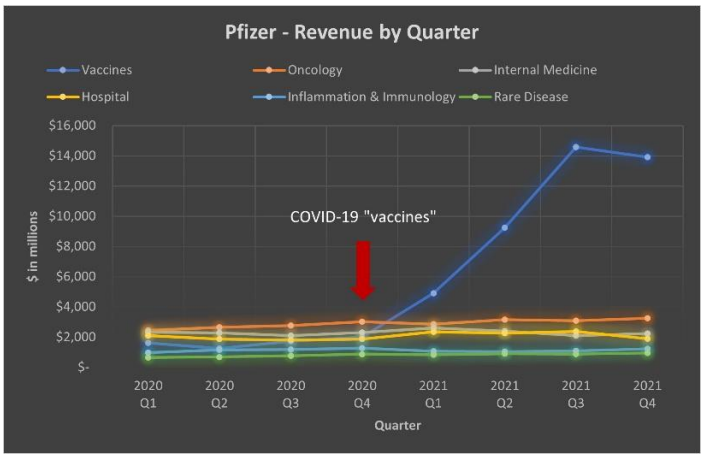


Figure 14: The revenue reported by Pfizer plotted by quarter for 2020 & 2021[47]

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[47] Pfizer Inc. (2021). Pfizer Reports Fourth-Quarter and Full-Year 2021 Results. Retrieved from https://s28.q4cdn.com/781576035/files/doc_financials/2021/q4/Q4-2021-PFE-Earnings-Release.pdf; Pfizer Inc. (2021). Pfizer Reports Second-Quarter 2021 Results. Retrieved from https://s28.q4cdn.com/781576035/files/doc_financials/2021/q2/Q2-2021-PFE-Earnings-Release.pdf; Pfizer Inc. (2021). Pfizer Reports Strong First-Quarter 2021 Results. Retrieved from https://s28.q4cdn.com/781576035/files/doc_financials/2021/q1/Q1-2021-PFE-Earnings-Release.pdf; Pfizer Inc. (2021). Pfizer Reports Third-Quarter 2021 Results. Retrieved from https://www.pfizer.com/news/press-release/press-release-detail/pfizer-reports-third-quarter-2021-results

8. Available Treatments: the good that's refused and the bad that is pushed

Summary:

- The scientific and medical literature, in addition to our knowledge of COVID-19, clearly indicates the presence of numerous alternative preventative and treatment measures that could be utilized and have been successfully utilized in the treatment of COVID-19. This includes, but is not limited to, anti-inflammatories, anticoagulants, various drugs (e.g. hydroxychloroquine, chloroquine, ivermectin, remdesivir, doxycycline, etc.).

- "In silico studies showed that compounds from propolis [bee glue; a resin-like substance produced by honeybees and used to build hives] could interact with target proteins of SARS-CoV-2, interfering with viral entry and viral RNA replication, while clinical studies revealed that **propolis** and **honey** could probably improve clinical COVID-19 symptoms and decrease viral clearance time. However, clinical evidence is limited by the small number of studies and small sample sizes. Future clinical studies are warranted" (Dilokthornsakul et al., 2022)

- "IL-6 [Interleukin-6, a major contributor to the inflammatory processes of COVID-19] induces endothelial dysfunction with TF [Tissue Factor] and CAMs [adhesion molecules] expression via upregulation of ACE2r [primary target of spike protein]. **VitD prevented these IL-6 deleterious effects**. Thus, it might be speculated that this is one of the hypothetical mechanism(s) by which VitD exerts its beneficial effects in COVID-19 infection." (Cimmino et al., 2022)

- "Severe acute lung injury has few treatment options and a high mortality rate. Upon injury, neutrophils infiltrate the lungs and form neutrophil extracellular traps (NETs), damaging the lungs and driving an exacerbated immune response. Unfortunately, no drug preventing NET formation has completed clinical development. Here, we report that **disulfiram** —***an FDA-approved drug for alcohol use disorder***— dramatically reduced NETs, increased survival, improved blood oxygenation, and reduced lung edema in a transfusion-related acute lung injury (TRALI) mouse model. We then tested whether disulfiram could confer protection in the context of SARS-CoV-2 infection, as NETs are elevated in patients with severe COVID-19. In SARS-CoV-2-infected golden hamsters, disulfiram reduced NETs and perivascular fibrosis in the lungs, and downregulated innate immune and complement/coagulation pathways, suggesting that it could be beneficial for COVID-19 patients. In conclusion, ***an existing FDA-approved drug can block NET formation and improve disease course in two rodent models of lung injury for which treatment options are limited***." (Adrover et al., 2022)

- "Results: Of the 223,128 citizens of Itajaí considered for the study, a total of 159,561 subjects were included in the analysis: 113,845 (71.3%) regular **ivermectin** users and 45,716 (23.3%) non-users. Of these, 4,311 ivermectin users were infected, among which 4,197 were from the city of Itajaí (3.7% infection rate), and 3,034 non-users (from Itajaí) were infected (6.6% infection rate), with a ***44% reduction in COVID-19 infection rate*** (risk ratio [RR], 0.56; 95% confidence interval (95% CI), 0.53-0.58; $p < 0.0001$). Using PSM, two cohorts of 3,034 subjects suffering from COVID-19 infection were compared. The ***regular use of ivermectin led to a 68% reduction in COVID-19 mortality*** (25 [0.8%] versus 79 [2.6%] among ivermectin non-users; RR, 0.32; 95% CI, 0.20-0.49; $p < 0.0001$). When adjusted for residual variables, reduction in mortality rate was 70% (RR, 0.30; 95% CI, 0.19-0.46; $p < 0.0001$). There was ***a***

56% reduction in hospitalization rate (44 versus 99 hospitalizations among ivermectin users and non-users, respectively; RR, 0.44; 95% CI, 0.31-0.63; p < 0.0001). After adjustment for residual variables, reduction in hospitalization rate was 67% (RR, 0.33; 95% CI, 023-0.66; p < 0.0001). Conclusion: In this large PSM study, ***regular use of ivermectin as a prophylactic agent was associated with significantly reduced COVID-19 infection, hospitalization, and mortality rates.***" (Kerr et al., 2022)

- "While there is no single 'Silver Bullet' to cure COVID-19, we believe that the severely disturbed pathological processes leading to respiratory failure in patients with COVID-19 organizing pneumonia will respond to the combination of **Methylprednisone, Ascorbic acid, Thiamine, and full anticoagulation with Heparin (MATH+ protocol)**.We believe that it is no longer ethically acceptable to limit management to 'supportive care' alone, in the face of effective, safe, and inexpensive medications that can effectively treat this disease and thereby reduce the risk of complications and death." (Marik et al., 2021)
    - Additionally, the same authors had published a **review** of "the scientific and clinical rationale behind MATH+ based on published in-vitro, pre-clinical, and clinical data in support of each medicine, with a special emphasis of studies supporting their use in the treatment of patients with viral syndromes and COVID-19 specifically." (Kory et al., 2021) [**NOTE:** This article was retracted ***solely based*** on a notice received from **one** of the US hospitals utilizing the MATH+ protocol (Senatra Norfolk General Hospital) which claimed that the data reported in the paper was inaccurate. **Problems**: The retraction is solely based on claims from a single hospital (no indication of issues with the data from the other hospital (United Memorial Medical Center); ignores the main focus of the paper (the literature review supporting the treatment; reference to the hospital data constitutes ~300 words in a 15-page paper, excluding the citations); ignores the conclusion of the paper which focuses on logic extracted from the literature review and does not address the hospital data. Additionally, there is no indication that the authors were given a chance to respond/correct any issues. The authors claim[48] that they provided the journal with follow-up data, but the journal refused to accept it.]
- **Tocilizumab** (Actemra®)
    - is an interleukin-6 (IL-6) antagonist not FDA-approved to treat COVID-19 (if that means anything anymore), i.e., for COVID-19, it is an experimental drug. IL-6 is an inflammatory immune-chemical that is potentially associated with the cytokine storm contributing to COVID-19 (Hojyo et al., 2020;Tang et al., 2020).
    - Interestingly, the inflammatory response (including IL-6 levels) to COVID-19 has been reported to be correlated to **Vitamin D deficiency** (Jain et al., 2020). Tocilizumab is also mentioned, in some other points, in the information below.
    - The information on the **Medication Guide** is noteworthy given what COVID-19 is. It indicates the following warning: "ACTEMRA can cause serious side effects including: 1. ***Serious Infections***. ACTEMRA is a medicine that affects your immune system. ACTEMRA ***can lower the ability of your immune system to fight infections***. Some people have serious infections while taking ACTEMRA, including ***tuberculosis (TB), and infections caused by bacteria, fungi, or***

[48] https://twitter.com/PierreKory/status/1458892081687150602

viruses that can spread throughout the body. Some people have died from these infections. Your healthcare provider should test you for TB before starting ACTEMRA."

- Moreover, the FDA Fact Sheet on tocilizumab[49], under "Warnings and Precautions", states:

----------WARNINGS AND PRECAUTIONS----------

- Serious Infections – do not administer ACTEMRA during any other concurrent active infection (5.1)
- Gastrointestinal (GI) perforation – use with caution in patients who may be at increased risk. (5.2)
- Hepatotoxicity – ACTEMRA treatment is not recommended in patients with elevated ALT or AST above 10 times the upper limit of the reference range. (5.3)
- Laboratory monitoring – recommended due to potential consequences of treatment-related changes in neutrophils, platelets, and liver function tests. (5.4)
- Hypersensitivity reactions, including anaphylaxis and death have occurred. (5.5)
- Live vaccines – avoid use with ACTEMRA. (5.8)

Figure 15: Excerpt from Fact sheet available on FDA website (https://www.fda.gov/media/150321/download)

- **Questions for consideration** – Given:
  - What COVID-19 is (i.e., a viral infection),
  - The number of side effects reported thus far with tocilizumab relative to alternate treatments e.g., See McCullough et al. (2020),
  - the impact of tocilizumab on the immune-system and increased potential for infections,

  does it really make sense to add the potential of increasing infections and lowering immunity to what is already present? Do the benefits really outweigh the risks?

[49] https://www.fda.gov/media/150321/download

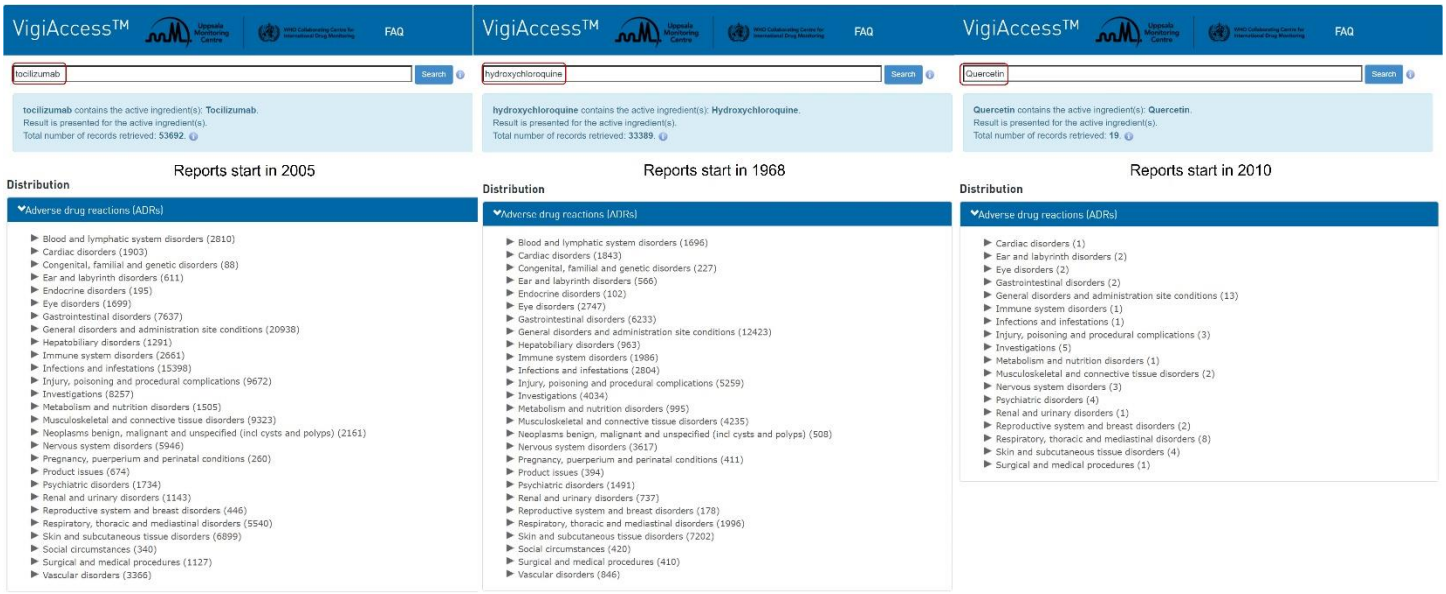


Figure 16: Comparison of reported adverse events: Tocilizumab, Hydroxychloroquine, and Quercetin (http://vigiaccess.org/; data accessed 01//22/22)

- "***Virological clearance was earlier*** in the 5-day **ivermectin** treatment arm when compared to the placebo group (9.7 days vs 12.7 days; p = 0.02), but this was not the case for the ivermectin + doxycycline arm (11.5 days; p =0.27). There were no severe adverse drug events recorded in the study. ***A 5-day course of ivermectin was found to be safe and effective in treating adult patients with mild COVID-19***."(Ahmed et al., 2021)
- "**Results:** The obtained results showed that HCQ [hydroxychloroquine] ***can inhibit viral replication and entry inside the cell*** through raising lysosomal pH and binding to specific receptors on the cells, thereby, preventing viral entry. **Conclusion**: HCQ has a better safety profile than CQ [chloroquine] and also modulates cytokine syndrome." (Iqbal et al., 2021)
- Preprint stated: "…inhaled **budesonide** ***reduced time to recovery*** by a median of 3 days in people with COVID-19 with risk factors for adverse outcomes" (Yu et al., 2021a) – In the published manuscript in Lancet, this was modified to "Inhaled budesonide improves time to recovery, with a chance of also reducing hospital admissions or deaths" (Yu et al., 2021b)
- **Thapsigargin (TG)**: "Together with its ability to inhibit the different viruses before or during active infection, and with an antiviral duration of at least 48 h post-TG exposure, we propose that TG (or its derivatives) is a promising broad-spectrum inhibitor against SARS-CoV-2, OC43, RSV and influenza virus." (Al-Beltagi et al., 2021)
- "Administration of the HCQ [**hydroxycholorquine**] +AZ [**azithromycin**] combination before COVID-19 complications occur is safe and associated with a very low fatality rate in patients." (Million et al., 2020)
- Borsche et al. (2021)
    - In the Title: COVID-19 Mortality Risk Correlates Inversely with Vitamin D3 Status, and ***a Mortality Rate Close to Zero Could Theoretically Be Achieved*** at 50 ng/mL 25(OH)D3

  - In the abstract: "The two datasets provide strong evidence that low **D3** is a predictor rather than a side effect of the infection. Despite ongoing vaccinations, we recommend raising serum 25(OH)D levels to above 50 ng/ml to prevent or mitigate new outbreaks due to escape mutations or decreasing antibody activity."

  - In the conclusion: "the authors strongly recommend combining vaccination with ***routine strengthening of the immune system of the whole population by vitamin D3 supplementation*** to consistently guarantee blood levels above 50 ng/ml (125 nmol/l). From a ***medical*** point of view, this will ***not only save many lives but also increase the success of vaccination***. From a ***social and political*** point of view, it will ***lower the need for further contact restrictions and lockdowns***. From an ***economical*** point of view, it will ***save billions of dollars worldwide***, as vitamin D3 is inexpensive and – together with vaccines – provides a good opportunity to get the spread of SARS-CoV-2 under control." [**NOTE:** Including this quote addressing the administration of Vitamin D in "combination to the vaccine" does **not** reflect an endorsement of the vaccine from my end. Given the evidence provided in this document, I do not endorse the administration of the vaccine under any circumstances, or any age group**].**

- "A meta-analysis study reported that ***music*** can modulate cytokine levels (including reducing ***IL-6 levels*** [IL-6 is one of the major inflammatory cytokines implicated in COVID-19]), as well as neuroendocrine-immune responses triggered by stress, including physical stress caused by viral infection (Fancourt et al., 2014)." [**Comment**: Given the therapeutic value of music (in the same way that games can help in diseases such as Alzheimer's), including through an anti-inflammatory response, why are simpler, safer methods of addressing COVID-19 ignored in favor of questionable treatments?]

- There appears to be a concerted antagonistic effort in the medical field (often in letters, and not peer reviewed articles, to the editor of medical journals) towards the potential efficacy of ivermectin in the treatment of COVID-19 (e.g. Temple et al., 2021). Part of the efforts seem directed/focused on highlighting the side effects of ivermectin. Below is data extracted from the WHO adverse event website VigiAccess™ (http://vigiaccess.org); data accessed 10/26/21. Keep in mind that ivermectin was approved for medical use in 1981, while the COVID-19 vaccines were "approved" in late 2020.

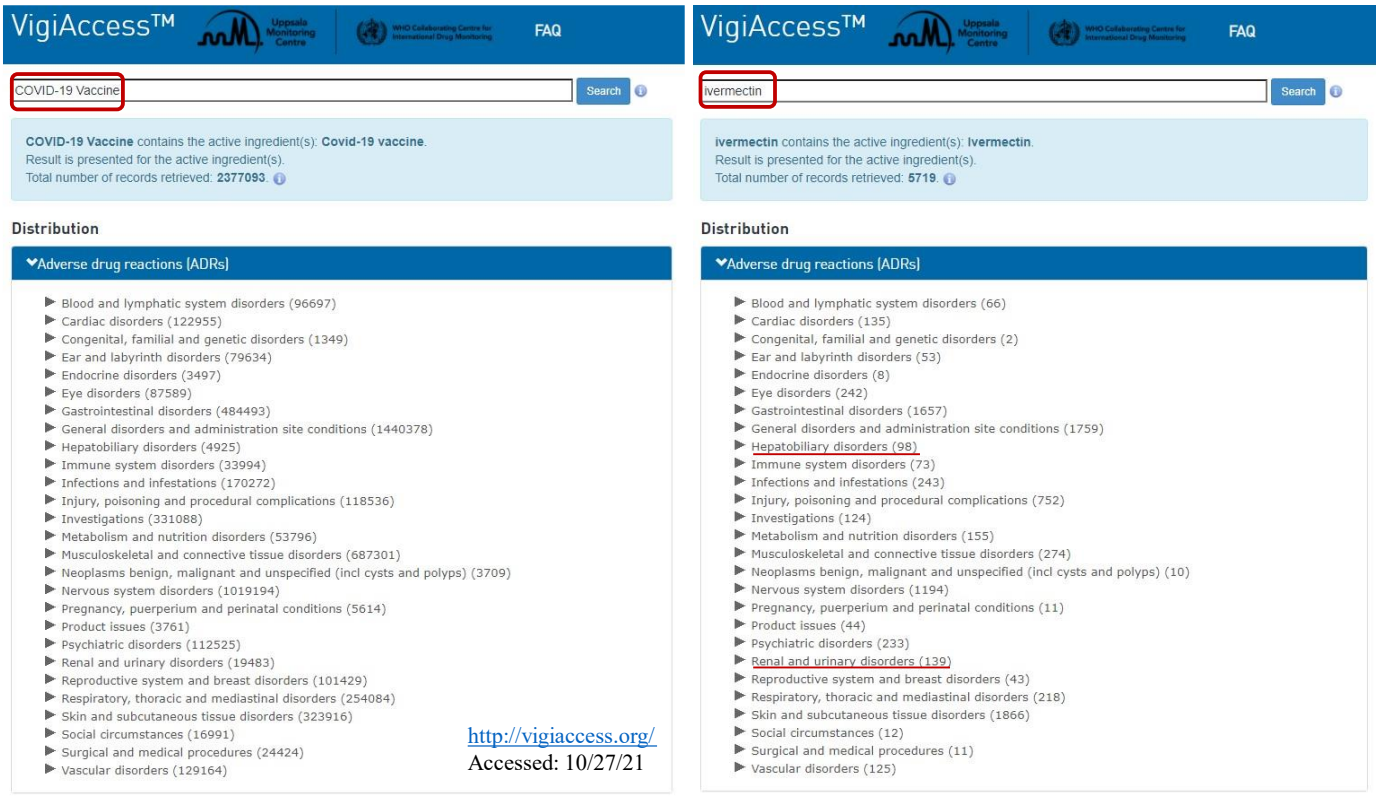


Figure 17: Comparison of COVID-19 vaccine adverse events relative to ivermectin (data accessed 10/26/21)

- **Various treatments** and protocols are available to address the effects of SARS-CoV-2 and the resulting COVID-19. Some of these are addressed below. Some of what is addressed below is common sense treatments that have either been used in medicine for a long time for other disorders that cause similar symptoms e.g. asthma, or potentially known for centuries (e.g. topical saline (i.e. nasal sprays in this case) to reduce microbial burden). However, also refer to McCullough et al. (2020) and see diagram below. (Further information also available at: https://www.truthforhealth.org/)

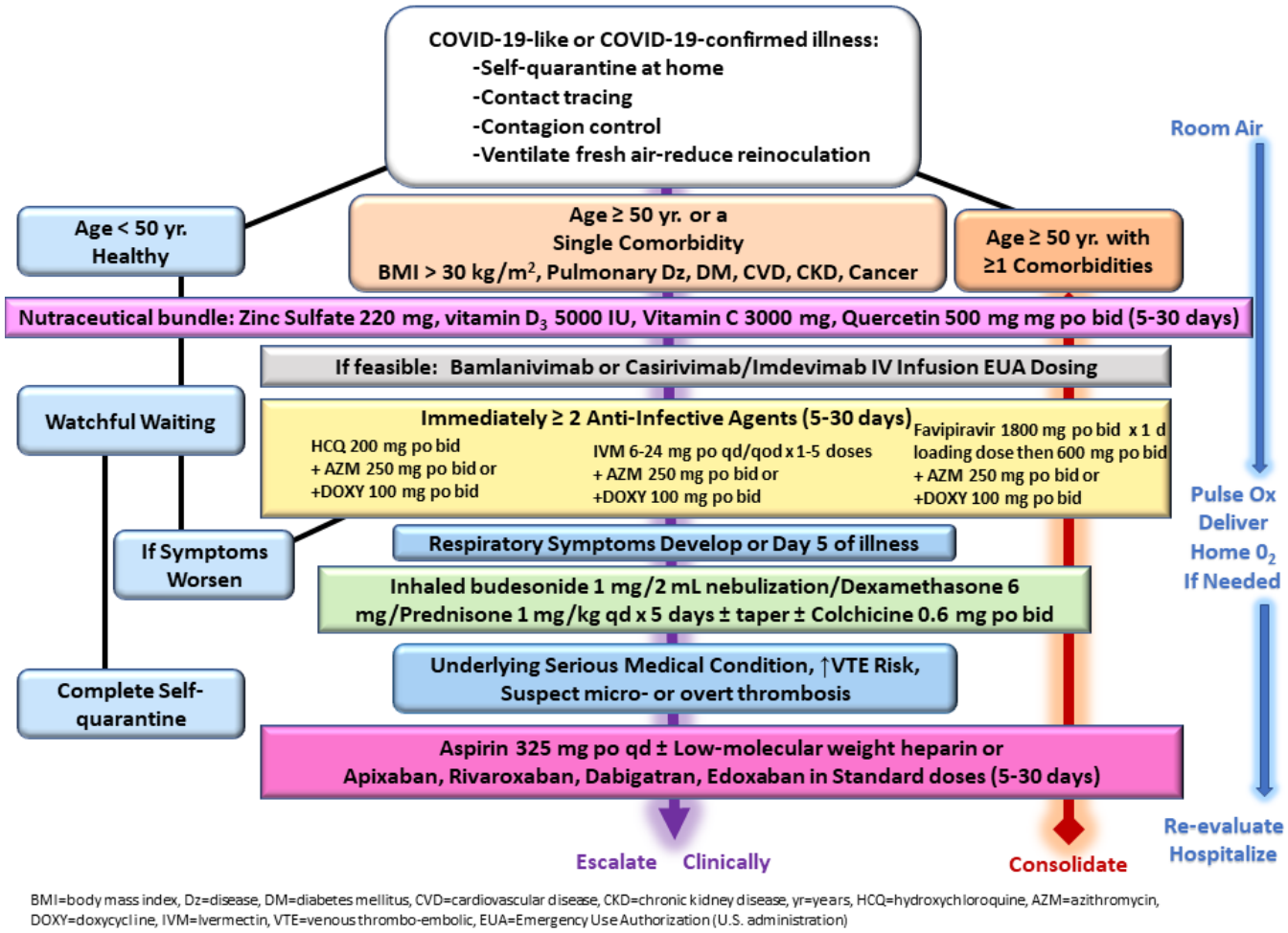
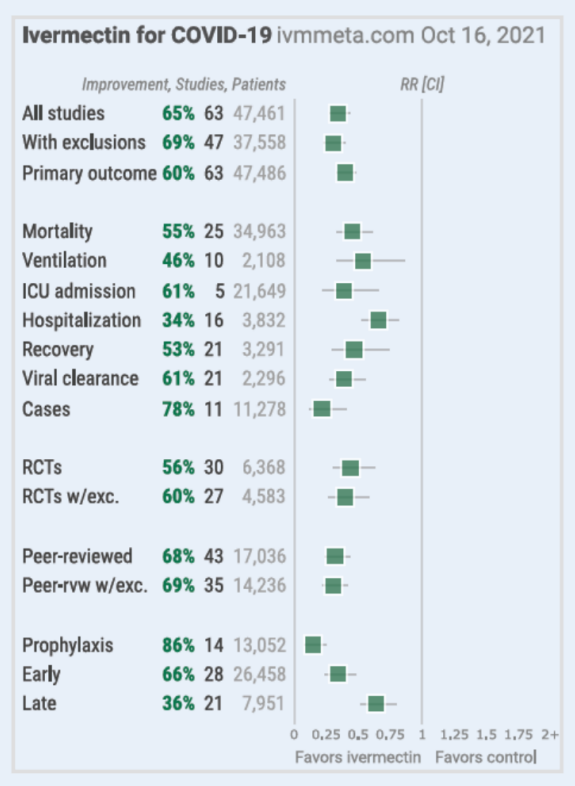


Figure 18: "Fig. 3. Sequential multidrug treatment algorithm for ambulatory acute COVID-19 like and confirmed COVID-19 illness in patients in self-quarantine. Yr = year, BMI = body mass index, Dz = disease, DM = diabetes mellitus, CVD = cardiovascular disease, chronic kidney disease, HCQ = hydroxychloroquine, IVM = ivermectin, Mgt = management, Ox = oximetry, reproduced with permission from reference." (McCullough et al., 2020)

- "A recent meta-analysis (Kohler et al., 2018) of studies conducted in individuals with major depressive disorder following **antidepressant** treatment, mostly including selective serotonin reuptake inhibitors (SSRIs), supports that, overall, antidepressants may be associated with decreased plasma levels of 4 of 16 tested inflammatory mediators, including IL-10, TNF-α, and CCL-2, which are associated with COVID-19 severity (Hojyo et al., 2020), as well as IL-6, which is highly correlated with disease mortality (Hojyo et al., 2020;Ye et al., 2020)… In this multicenter observational retrospective study, ***antidepressant use at usual antidepressant doses was significantly and substantially associated with lower risk of intubation or death among adult patients hospitalized for COVID-19***." (Hoertel et al., 2021).
- "**Results**: The results revealed a reduction in frequency and length of hospitalization, in need of non-invasive oxygen therapy, in progression to intensive care units and in number of deaths. The results also confirmed the very high safety profile of **quercetin** and suggested possible anti-fatigue and pro-appetite properties. **Conclusion**: QP [quercetin] is a safe agent and in combination with standard care, when used in early stage of viral infection, could aid in improving the early

symptoms and help in preventing the severity of COVID-19 disease… Quercetin is characterized by three crucial properties: antioxidant, anti-inflammatory and immunomodulatory." (Di Pierro et al., 2021a)

- "QP [**quercetin**] statistically shortens the timing of molecular test conversion from positive to negative, reducing at the same time symptoms severity and negative predictors of COVID-19." (Di Pierro et al., 2021b)
- Arefin (2021) recommends the use of **Povidone Iodine (PVP-I)** oro-nasal spray as a shield against COVID-19, a "strong microbicidal agent having 99.99% virucidal efficacy in its only 0.23% concentration, irrespective of all known viruses, even in SARS- CoV-2 (in vitro)." [**NOTE**: the potency of PVP-I is well known in the medical field. The author does indicate that "oral PVP-I, throat spray, nasal spray formulations are currently available as over-the-counter medications in many countries". My concern in this case would potentially be about potential effects on the thyroid (please also see Guenezan et al. (2021) in this section). The author does warn about contraindications in patients with "iodine allergy or those undergoing radioiodine treatment or thyroid dysfunction" ; Paper is also not very well written]
- Guenezan et al. (2021) state that "Nasopharyngeal decolonization may reduce the carriage of infectious SARS-CoV-2 in adults with mild to moderate COVID-19. Thyroid dysfunction occurred in 42% of the patients exposed to **PI** [**Povidone-Iodine**], with spontaneous resolution upon treatment discontinuation, as previously reported."
- "…in human airway-derived cell models, moxidectin and **ivermectin** failed to inhibit SARS-CoV-2 infection…these findings suggest that, even by using a high-dose regimen of ivermectin or switching to another drug in the same class are ***unlikely to be useful for treatment against SARS-CoV-2 in humans***." (Dinesh Kumar et al., 2021) [**NOTE:** however, there are limitations to this study: conducted *in vitro*; does not take into consideration what has been reported clinically – see https://ivmmeta.com/ - for ongoing analysis relating to - **Ivermectin**]



	Studies	Prophylaxis	Early treatment	Late treatment	Patients
All studies	63	**86%** [75-92%]	**66%** [52-76%]	**36%** [21-48%]	47,461
Peer-reviewed	43	**86%** [74-93%]	**69%** [51-81%]	**38%** [16-55%]	17,036
With GMK/BBC exclusions	47	**84%** [69-91%]	**73%** [63-80%]	**45%** [22-61%]	37,558
Randomized Controlled Trials	30	**84%** [25-96%]	**62%** [43-75%]	**20%** [-6-39%]	6,368

Percentage improvement with ivermectin treatment

Figure 19: Ivermectin for COVID-19: real-time meta analysis of 63 studies Covid Analysis, ***Oct 16, 2021 [date of extraction]****,*
Version 133— removed Niaee [BBC, GMK response]https://ivmmeta.com/

- Expert Review Report by Jacques Descotes MD, PharmD, PhD, Professor Emeritus, Claude Bernard University of Lyon Fellow, US Academy of Toxicological Sciences Eurotox Registered Toxicologist: "Hundreds of millions of human subjects have been treated with ivermectin for curative or prophylactic purposes worldwide over the last 3 decades. The reference list of this report demonstrates that a large body of data is available, which allows for a detailed analysis of ivermectin medical safety. Undoubtedly, uncertainties remain regarding ivermectin pharmacological effects and mechanisms of action, but when removed, this is not anticipated to alter the main conclusions of this report in any significant way as they rely on an extensive and consistent body of medical publications. ***Taking into account all the above, the author of the present analysis of the available medical data concludes that the safety profile of ivermectin has***

so far been excellent in the majority of treated human patients so that ivermectin human toxicity cannot be claimed to be a serious cause for concern." (Descotes, 2021)[50]

- "In patients with mild and moderate COVID-19, a single oral administration of Ivermectin did not significantly increase either the negativity of RT-PCR or decline in viral load at day 5 of enrolment compared with placebo." (Mohan et al., 2021) [**NOTE**: It is questionable whether the dose the authors report is even therapeutic i.e. it is possible the dose administered is subtherapeutic. Authors report the administration of a ***single*** dose of 24 or 12 mg. However, McCullough et al. (2020) suggests "200-600 mcg/kg [6-36 mg] single oral dose ***given daily or every other day for 2-3 administrations***". – note how weight is considered in the dosing and more than one dose appears to be required.]
- "**Findings**: In an observational cohort study of 412 adult patients with COVID-19, **aspirin** use was associated with a ***significantly lower rate of mechanical ventilation, intensive care unit (ICU) admission, and in-hospital mortality*** after controlling for confounding variables. **Meaning**: Aspirin may have lung-protective effects and reduce the need for mechanical ventilation, ICU admission, and in-hospital mortality in hospitalized COVID-19 patients." (Chow et al., 2021)
- "The pharmacology of anti-SARS-CoV-2 drugs, **Molnupiravir (M)** and repurposed **Ivermectin (IV)** were compared. The IC50 for the inhibition of viral replication were 0.3μM for M and 2.8μM for IV. Both drugs have ***good oral absorption***, with M achieving peak plasma concentrations by 2 hours and IV by 5 hours. The plasma half life were 7 hours for M and 81-91 hours for IV. ***M inhibits viral replication*** inducing viral mutagenesis in RdRp, causing viral error catastrophe and viral extinction. ***IV affects viral cell entry, nuclear transport and inhibits replication*** via RdRp. IV has additional effect to suppress cytokine production through STAT-3 inhibition. ***M is a more potent antiviral drug and IV has a longer residence in the body***." (AAL, 2021)
- "Our results show that therapeutic and prophylactic administration of **EIDD-2801**-an oral broad-spectrum antiviral agent that is currently in phase II/III clinical trials-markedly inhibited SARS-CoV-2 replication in vivo, and thus has considerable potential for the prevention and treatment of COVID-19." (Wahl et al., 2021)
- "**Ivermectin** was found as a blocker of viral replicase, protease and human TMPRSS2, which could be the biophysical basis behind its antiviral efficiency" [*in silico* investigation] (Choudhury et al., 2021)
- "Hypertonic **nasal saline**, which facilitates mucociliary clearance, likely decreases viral burden through physical removal. Other additives, such as **povidone-iodine**, may aid in eliminating viral particles within the nasal cavity and nasopharynx prior to active infection. Given available evidence, saline irrigations with or without indicated additives may be safe to use in the presence of COVID-19."(Farrell et al., 2020)
- "INCS [**Intranasal Corticosteroid**] therapy is associated with a lower risk for COVID-19-related hospitalization, ICU admission, or death." (Strauss et al., 2021)
- "…we determined that **melatonin** usage was associated with a ***reduced likelihood of SARS-CoV-2 positive test result*** compared to use of **angiotensin II receptor blockers** (OR = 0.70, 95% CI 0.54-0.92) or **angiotensin-converting enzyme inhibitors** (OR = 0.69, 95% CI 0.52-0.90). Importantly, melatonin usage (OR = 0.48, 95% CI 0.31-0.75) is associated with a ***52% reduced likelihood of a positive laboratory test result for SARS-CoV-2 in African Americans*** after

[50] https://www.medincell.com/wp-content/uploads/2021/03/Clinical_Safety_of_Ivermectin-March_2021.pdf

adjusting for age, sex, race, smoking history, and various disease comorbidities…In summary, this study presents an integrative network medicine platform for predicting disease manifestations associated with COVID-19 and ***identifying melatonin for potential prevention and treatment of COVID-19***." (Zhou et al., 2020b)

- Not related to COVID-19 but addressing the treatment of various factors that manifest themselves in COVID-19 – "**Melatonin**, alongside its traditionally accepted role as the master hormonal regulator of the circadian rhythm, is ***a promising adjunctive drug for sepsis through its anti-inflammatory, antiapoptotic and powerful antioxidant properties***."(Colunga Biancatelli et al., 2020)
- "**Melatonin** is readily available, can be easily synthesized in large quantities, is inexpensive, has a very high safety profile and can be easily self-administered. Melatonin is endogenously-produced molecule in small amounts with its production diminishing with increased age. Under the current critical conditions, ***large doses of melatonin alone or in combination with currently-recommended drugs, e.g., hydroxychloroquine/chloroquine, to resist COVID-19 infection would seem judicious.***"(Reiter et al., 2020)
- **Remdesivir**:
  - Prior to addressing some literature pertaining to **remdesivir,** it is important to take note of the comparison of reported side effects relative to ivermectin. This is data from the WHO VigiAccess™ database (http://www.vigiaccess.org/).

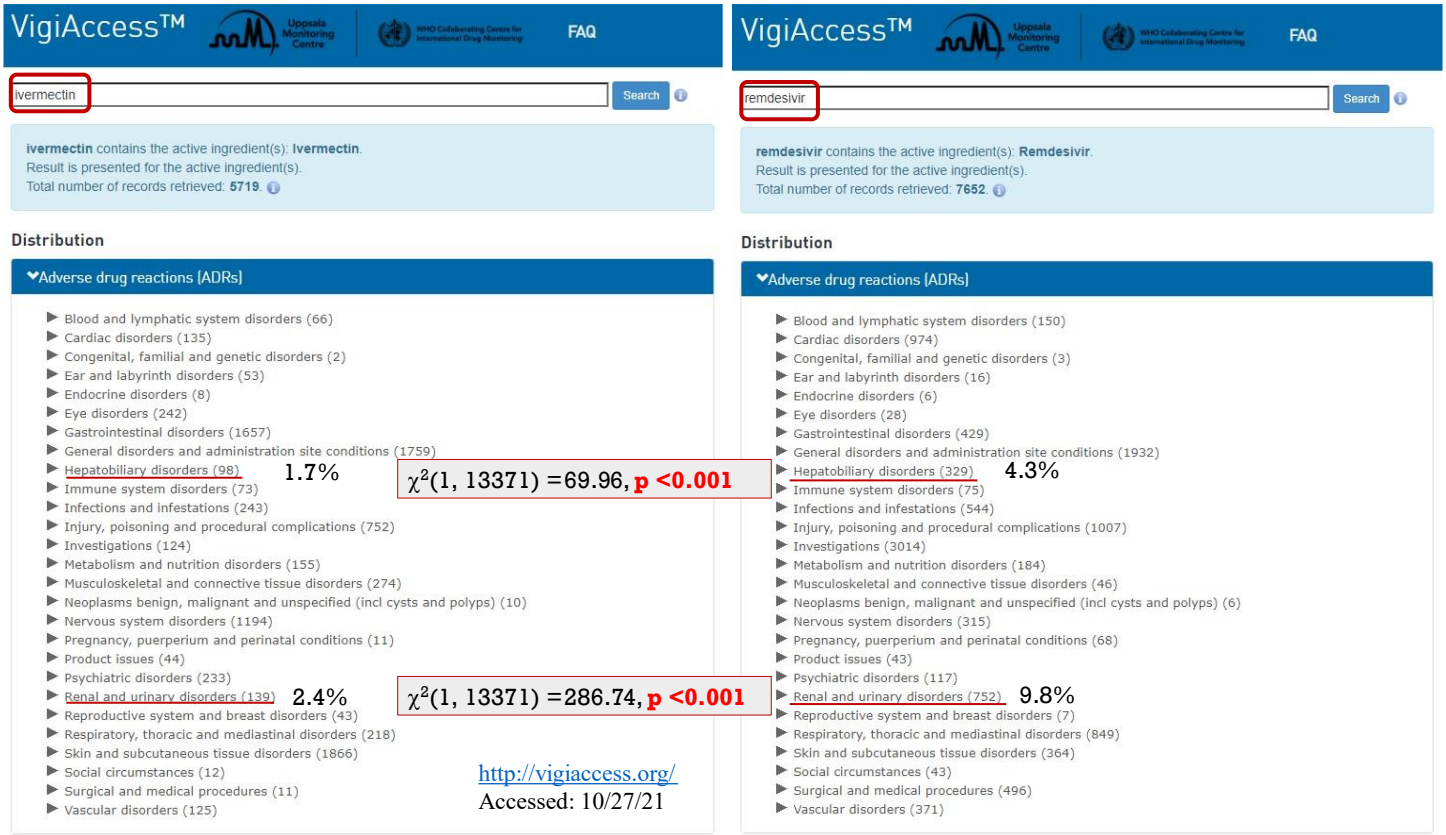


*Figure 20: Statistical analysis indicates that the proportion of reports for remdesivir are **significantly (p<0.001) higher** than those of ivermectin for Hepatobiliary disorders and Renal and Urinary disorders.*

- Additionally, the concern pertaining to safety, most especially pertaining to its negative effects on the kidneys that could ultimately impact survival, are of great concern and also outlined in the scientific literature (Rahimi et al., 2020;Chouchana et al., 2021;Gerard et al., 2021;Silva et al., 2021).
    - "Versus hydroxychloroquine, lopinavir/ritonavir, or tocilizumab, ***the use of remdesivir was associated with an increased chance of reporting renal and urinary disorders regardless of gender and age of patients*** (2.53; 95%CI: 2.10-3.06). The ROR [reporting odds ratios] remained significant when we restricted the analysis to hydroxychloroquine (4.31; 95%CI: 3.25-5.71) or tocilizumab (3.92; 95%CI: 2.51-6.12). Our results reinforce this already reported signal, emphasizing that it could be extremely useful for health professionals who prescribe this new antiviral to treat COVID-19, mainly knowing its ***low efficacy***." (Silva et al., 2021)
    - "Our findings, based on postmarketing real-life data from >5000 COVID-19 patients, ***support that kidney disorders***, almost exclusively AKI [acute kidney injury], ***represent a serious, early, and potentially fatal adverse drug reaction of remdesivir***" (Chouchana et al., 2021)
    - "Remdesivir solution is administered with a cyclodextrin carrier that filters solely by the glomeruli; thereby patients with abnormal renal function cannot eliminate it quickly; therefore, ***remdesivir can lead to renal failure or liver dysfunction during therapeutic process of COVID-19***." (Rahimi et al., 2020)
- Ader et al. (2021) state that "Together with previous evidence, results from the DisCoVeRy trial do not support the use of remdesivir in hospitalised patients with COVID-19 in a population with symptoms for more than a week and requiring oxygen support."
- Other studies have reported contrary findings. In a comparison between a 5-day course vs 10-day course of **remdesivir** 64% of patients treated were reported to have recovered in the 5-day group relative to 54% of patients in the 10-day group. However, "In patients with severe Covid-19 not requiring mechanical ventilation, our trial did not show a significant difference between a 5-day course and a 10-day course of remdesivir. With no placebo control, however, the magnitude of benefit cannot be determined." (Goldman et al., 2020)[51]
- "Our data show that **remdesivir** was superior to placebo in shortening the time to recovery in adults who were hospitalized with Covid-19 and had evidence of lower respiratory tract infection." (Beigel et al., 2020)[52]
- "In pre-clinical models, **remdesivir** has demonstrated potent antiviral activity against diverse human and zoonotic b-coronaviruses, including SARS-CoV-2." (Jorgensen et al., 2020)
- Some studies have also reported faster recovery times with **remdesivir** treatment but little change in mortality rates (Jorgensen et al., 2020;Singh et al., 2020)

- **Chloroquine (CQ)** and **hydroxychloroquine (HCQ)** alone or in combination therapy with other treatments (McCullough et al., 2020)

[51] This paper involves research conducted using support from Gilead Sciences which is the developer of remdesivir. This is fully declared in the paper.
[52] As per footnote #8.

- "Precious time is squandered with a "wait and see" approach in which there is no anti-viral treatment as the condition worsens, possibly resulting in unnecessary hospitalization, morbidity, and death." (McCullough et al., 2020)
- "…treatment with **hydroxychloroquine** alone and in combination with **azithromycin** was associated with reduction in COVID-19 associated mortality." (Arshad et al., 2020)
- "**HCQ**, which is three times more potent than **CQ** in SARS-CoV-2 infected cells (EC50 0.72 μM), was significantly associated with viral load reduction/disappearance in COVID-19 patients compared to controls." (Klimke et al., 2020)
- "Our findings reveal that **remdesivir** [**NOTE:** See other comments regarding the dangers of kidney failure associated with this drug] and **chloroquine** are highly effective in the control of 2019-nCoV infection in vitro. Since these compounds have been used in human patients with a safety track record and shown to be effective against various ailments, we suggest that they should be assessed in human patients suffering from the novel coronavirus disease." (Wang et al., 2020b)
- "…several studies have shown the effectiveness of this molecule, including against coronaviruses among which is the severe acute respiratory syndrome (SARS)-associated coronavirus ….[clinical trials] showed that **chloroquine** could reduce the length of hospital stay and improve the evolution of COVID-19 pneumonia, leading to recommend the administration of 500 mg of chloroquine twice a day in patients with mild, moderate and severe forms of COVID-19 pneumonia." (Colson et al., 2020)
- "Our review shows that SARS-Cov-2 selectively induces a high level of IL-6 and results in the exhaustion of lymphocytes. The current evidence indicates that **tocilizumab**, an IL-6 inhibitor, is relatively effective and safe." (Tang et al., 2020)
- "**Chloroquine** phosphate, an old drug for treatment of malaria, is shown to have apparent efficacy and acceptable safety against COVID-19 associated pneumonia in multicenter clinical trials conducted in China." (Gao et al., 2020)
- "**Chloroquine** enhanced **zinc** uptake… The combination of chloroquine with zinc enhanced chloroquine's cytotoxicity and induced apoptosis in A2780 cells" (Xue et al., 2014)
- "**Chloroquine** is effective in preventing the spread of SARS CoV in cell culture. Favorable inhibition of virus spread was observed when the cells were either treated with chloroquine prior to or after SARS CoV infection." (Vincent et al., 2005)
- "**Ivermectin** is an FDA-approved broad-spectrum antiparasitic agent with demonstrated antiviral activity against a number of DNA and RNA viruses, including severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)." (Formiga et al., 2021)
- Discovered in the late 70's **ivermectin**, it was "Originally introduced as a veterinary drug, it kills a wide range of internal and external parasites in commercial livestock and companion animals. It was quickly discovered to be ideal in combating two of the world's most devastating and disfiguring diseases which have plagued the world's poor throughout the tropics for centuries. It is now being used free-of-charge as the sole tool in campaigns to eliminate both diseases globally. It has also been used to successfully overcome several other human diseases and new uses for it are continually being found." (Crump and Omura, 2011)
- "**Ivermectin** treatment was associated with lower mortality during treatment of COVID-19, especially in patients with severe pulmonary involvement" (Rajter et al., 2021)

- "Here, we show that countries with routine mass drug administration of prophylactic chemotherapy including **ivermectin** have a significantly lower incidence of COVID-19." (Hellwig and Maia, 2021)
- Re: **ivermectin** - "The consistency of positive results across a wide variety of cases has been remarkable. It is extremely unlikely that the observed results could have occurred by chance" (Zaidi and Dehgani-Mobaraki, 2021)
- "Statistically significant improvements are seen for mortality, hospitalization, recovery, cases, and viral clearance. 29 studies show statistically significant improvements in isolation." (ivmmeta.com, 2021)
- "Excitingly, cell culture experiments show robust antiviral action [by **ivermectin**] towards HIV-1, dengue virus (DENV), Zika virus,West Nile virus, Venezuelan equine encephalitis virus, Chikungunya virus, Pseudorabies virus, adenovirus, and SARS-CoV-2 (COVID-19)." (Jans and Wagstaff, 2020)
- "**Ivermectin** can be a potential molecule for prophylaxis and treatment of people infected with Coronavirus, owing to its anti-viral properties coupled with effective cost, availability and good tolerability and safety." (Vora et al., 2020)
- "**Ivermectin** plays a role in several biological mechanisms, therefore it could serve as a potential candidate in the treatment of a wide range of viruses including COVID-19 as well as other types of positive-sense single-stranded RNA viruses. In vivo studies of animal models revealed a broad range of antiviral effects of ivermectin, however, clinical trials are necessary to appraise the potential efficacy of ivermectin in clinical setting" (Heidary and Gharebaghi, 2020)
- "We report here that **Ivermectin**, an FDA-approved anti-parasitic previously shown to have broad-spectrum anti-viral activity in vitro, is an inhibitor of the causative virus (SARS-CoV-2), with a single addition to Vero-hSLAM cells 2 h post infection with SARS-CoV-2 able to effect ~5000-fold reduction in viral RNA at 48 h" (Caly et al., 2020)
- "**Ivermectin** exerts broad-spectrum antiviral activity against several animal and human viruses, including both RNA and DNA viruses" (Sharun et al., 2020)
- "…the authors found **Ivermectin-Doxycycline** combination therapy had a better success of symptomatic relief; shortened recovery duration, reduced adverse effects, and superior patient compliance compared to the **Hydroxychloroquine-Azithromycin** combination. The authors concluded ivermectin as a better choice for the treatment of patients with mild to moderate COVID-19 disease (Chowdhury et al., 2021)" (Pandey et al., 2020)
- "Meta-analysis of 15 trials found that **ivermectin** reduced risk of death compared with no ivermectin…ivermectin prophylaxis reduced COVID-19 infection by an average 86% (Bryant et al., 2021)" (Bilezikian et al., 2020)
- "**Ivermectin** (IVM) is one of the best known and most widely used antiparasitic drugs in human and veterinary medicine…IVM has been shown to regulate glucose and cholesterol levels in diabetic mice [1], to suppress malignant cell proliferation in various cancers [2], to inhibit viral replication in several flaviviruses [3], and to reduce survival in major insect vectors of malaria and trypanosomiasis [4,5]." (Laing et al., 2017)
- "**Ivermectin** is an antiparasitic drug with a broad spectrum of activity, high efficacy as well as a wide margin of safety" (Gonzalez Canga et al., 2008)

- "This study demonstrated that **ivermectin** is generally well tolerated at these higher doses and more frequent regimens." (Guzzo et al., 2002)

- **Other factors that assist (e.g. Vitamin D, diet)**
  - Lai et al. (2021) [**NOTE**: This paper is not the best of quality however, it ultimately points to the reality of the importance of appropriate nutrition and of the micronutrients addressed, which have been documented in various other papers, COVID-19- and non-COVID-19-related]:
    - "The relationship between ***Vit A*** and infection is its role in mucosal epithelium integrity (skin and mucous membrane), the supplementation could be an option for assisted-treating the SARS-CoV-2 virus and a possible prevention of lung infection."
    - "***Vit C/ascorbic acid*** stimulates oxygen radical scavenging activity of the skin and enhances epithelial barrier function. Ascorbic acid alone or with other natural compounds (baicalin and theaflavin) may inhibit the expression of angiotensin-converting enzyme II in human small alveolar epithelial cells and limited the entry of SARS-CoV-2."
    - "***Vitamin D*** receptors can be expressed by immune cells, and different immune cells (macrophages, monocytes, dendritic cells, T cells, and B cells) can convert Vit D into its active form 1,25-(OH)2 D. Oral vitamin D intake can be a readily way to restrict the viral infection through downregulation of ACE2 receptor and to attenuate the disease severity by decreasing the frequency of cytokine storm and pulmonary pro-inflammatory response."
    - "***Vit E*** supports T-cell mediated functions, optimization of Th1 response, and suppression of Th2 response. Vitamin E supplementation can lower the production of superoxides and may favors the antioxidants and benefit the progress of COVID-19 treatment."
    - "***Zinc*** plays an essential role in both innate and adaptive immune systems and cytokine production, and Zinc-dependent viral enzymes to initiate the infectious process have proved the Zinc levels are directly associated with symptoms relieved of COVID-19."
    - "***Iron*** is an essential component of enzymes involved in the activation of immune cells, lower iron levels predispose to severe symptoms of SARS-CoV-2, and monitoring the status can predict the disease severity and mortality."
    - "***Selenium*** participates in the adaptive immune response by supporting antibody production and development. Deficiency can reduce antibody concentration, decreased cytotoxicity of NK cells, compromised cellular immunity, and an attenuated response to vaccination."
    - The authors conclude that "Micronutrients ***are involved in immunity*** from the virus entering the human to innate immune response and adaptive immune response. Micronutrients are indispensable in immune response of vaccination." [**NOTE**: Strange how the micronutrients are not addressed as being indispensable in the natural immune response.]
  - "**Vitamin D** deficiency significantly correlates with the severity of SARS-CoV-2 infection…Active forms of vitamin D and lumisterol ***can inhibit SARS-CoV-2 replication machinery enzymes***, which indicates that novel vitamin D and lumisterol metabolites are candidates for antiviral drug research." (Qayyum et al., 2021)

- "Among hospitalized COVID-19 patients, pre-infection deficiency of **vitamin D** was associated with increased disease severity and mortality" (Dror et al., 2021)
- "There is growing evidence that **vitamin D** signaling is active throughout the immune system, and that it is physiologically important in protecting the human host from bacterial and viral invaders… Many clinical reports suggest that vitamin D supplementation, at least for the elderly and patients with low 25D status, can help in protecting against COVID-19 infection and severe course of disease." (Ismailova and White, 2021)
- "In conclusion, low serum 25 (OH) **Vitamin-D** level was significantly associated with a higher risk of COVID-19 infection. The limited currently available data suggest that sufficient Vitamin D level in serum is associated with a significantly decreased risk of COVID-19 infection." (Teshome et al., 2021)
- "We found a markedly high prevalence (100%) of **hypovitaminosis D** in patients admitted to hospital with COVID-19, suggesting a possible role of low vitamin D status in increasing the risk of SARS-CoV-2 infection and subsequent hospitalization. The inverse association between serum 25(OH)D levels and risk of in-hospital mortality observed in our cohort suggests that a lower vitamin D status upon admission may represent a modifiable and independent risk factor for poor prognosis in COVID-19." (Infante et al., 2021)
- "Among patients hospitalized with COVID-19, treatment with **calcifediol [25-hydroxyvitamin D_3)**, compared with those not receiving calcifediol, was significantly associated with lower in-hospital mortality during the first 30 days." (Alcala-Diaz et al., 2021)
- "…**calcifediol** treatment on ICU admission…showed that treated patients had a reduced risk to require ICU. Overall mortality was 10%. In the Intention-to-Treat analysis, 21 (4.7%) out of 447 patients treated with calcifediol at admission died compared to 62 patients (15.9%) out of 391 non-treated." (Nogues et al., 2021) [**NOTE**: currently listed by Retraction Watch as Retracted/Withdrawn]
- "**Vitamin D** supplementation might be associated with improved clinical outcomes, especially when administered after the diagnosis of COVID-19." (Pal et al., 2021)
- "A 5000 IU daily oral **vitamin D3 supplementation** for 2 weeks reduces the time to recovery for cough and gustatory sensory loss among patients with sub-optimal vitamin D status and mild to moderate COVID-19 symptoms. The use of 5000 IU vitamin D3 as an adjuvant therapy for COVID-19 patients with suboptimal vitamin D status, even for a short duration, is recommended" (Sabico et al., 2021)
- "Therapeutic improvement in **vitamin D** to 80–100 ng/ml has significantly reduced the inflammatory markers associated with COVID-19 without any side effects." (Lakkireddy et al., 2021)
- "Fourteen observational studies offer evidence that serum 25-hydroxyvitamin D concentrations are inversely correlated with the incidence or severity of COVID-19. The evidence to date generally satisfies Hill's criteria for causality in a biological system, namely, strength of association, consistency, temporality, biological gradient, plausibility (e.g., mechanisms), and coherence, although experimental verification is lacking. Thus, the evidence seems strong enough that people and physicians can use or recommend **vitamin D** supplements to prevent or treat COVID-19 in light of their safety and wide therapeutic window." (Mercola et al., 2020)

- "Nevertheless, recent publications consistently show a higher prevalence of **vitamin D** deficiency in patients presenting with severe forms of COVID-19 (Grant et al., 2020)" (Bilezikian et al., 2020)
- "Through several mechanisms, **vitamin D** can reduce risk of infections. Those mechanisms include inducing cathelicidins and defensins that can lower viral replication rates and reducing concentrations of pro-inflammatory cytokines that produce the inflammation that injures the lining of the lungs, leading to pneumonia, as well as increasing concentrations of anti-inflammatory cytokines." (Bilezikian et al., 2020)
- "Several studies demonstrated the role of **vitamin D** in reducing the risk of acute viral respiratory tract infections and pneumonia. These include direct inhibition with viral replication or with anti-inflammatory or immunomodulatory ways. In the meta-analysis, vitamin D supplementation has been shown as safe and effective against acute respiratory tract infections." (Ali, 2020)
- "In this review, inflammation associated with pre-existing comorbidities was highlighted as a significant risk factor for COVID-19 patients…Nutrients such as **vitamin C, vitamin D**, and **zinc** may hold some promise for the treatment of COVID-19. Likewise, nutrients with anti-inflammatory, antithrombotic, and antioxidant properties may prevent or attenuate the inflammatory and vascular manifestations associated with COVID-19. Indeed, following **healthy dietary** patterns and avoiding unhealthy dietary patterns, such as the **Mediterranean** and Western diets, respectively, may have beneficial effects against infection but require significantly more research. Our primary conclusion is that it is vitally important to maintain a healthy diet and lifestyle during the pandemic." (Zabetakis et al., 2020)
- "Our pilot study demonstrated that administration of a high dose of **Calcifediol or 25-hydroxyvitamin D**, a main metabolite of vitamin D endocrine system, significantly reduced the need for ICU treatment of patients requiring hospitalization due to proven COVID-19." (Entrenas Castillo et al., 2020)
- "…increased mortality in **vitamin D deficient** COVID-19 patients. As per the flexible approach in the current COVID-19 pandemic authors recommend mass administration of vitamin D supplements to population at risk for COVID-19." (Jain et al., 2020)
- "…treatment with **cholecalciferol** [**vitamin D_3**] booster therapy, regardless of baseline serum 25(OH)D levels, appears to be associated with a reduced risk of mortality in acute in-patients admitted with COVID-19." (Ling et al., 2020)
- "Based on many preclinical studies and observational data in humans, ARDS [Acute Respiratory Distress Syndrome – major complication of COVID-19] may be aggravated by **vitamin D** deficiency and tapered down by activation of the vitamin D receptor" (Quesada-Gomez et al., 2020)
- "A **vitamin D / magnesium / vitamin B12** combination in older COVID-19 patients was associated with a significant reduction in the proportion of patients with clinical deterioration requiring oxygen support, intensive care support, or both. This study supports further larger randomized controlled trials to ascertain the full benefit of this combination in ameliorating the severity of COVID-19." (Tan et al., 2020)
- "The National Academy of Medicine…recommends the rapid serum **vitamin D** (i.e. 25 OHD) testing in people over 60 years of age with Covid-19, and a loading dose of 50,000 to 100,000 IU in case of deficiency, which could help limit respiratory complications; recommends vitamin D

supplementation of 800 to 1000 IU/day in people under 60, as soon as the diagnosis of Covid-19 is confirmed." (French National Academy of Medicine, 2020)

- "We observed that **Mediterranean diet adherence** was negatively associated with both COVID-19 cases and related deaths across 17 regions in Spain and that the relationship remained when adjusted for factors of well-being. We also observed a negative association between Mediterranean diet adherence and COVID-19 related deaths across 23 countries when adjusted for factors of well-being and physical inactivity. The anti-inflammatory properties of the Mediterranean diet - likely due to the polyphenol content of the diet - may be a biological basis to explain our findings." (Greene et al., 2021)

Section 2: Other diseases & Issues

1. Cellphone & Cellphone Tower radiation

1.1 Cell Tower & Cellphone Radiation

- The WHO website has the following information relating to 5G mobile networks and health[53]:
  - "5G, or fifth generation, is the latest wireless mobile phone technology, first widely deployed in 2019."
  - "To enable increased performance, 5G will extend into higher frequencies around 3.5 GHz and up to a few tens of GHz."
  - "Given that the 5G technology is currently at an early stage of deployment, the extent of any change in exposure to radiofrequency fields is still under investigation."
  - "Provided that the overall exposure remains below international guidelines, no consequences for public health are anticipated."

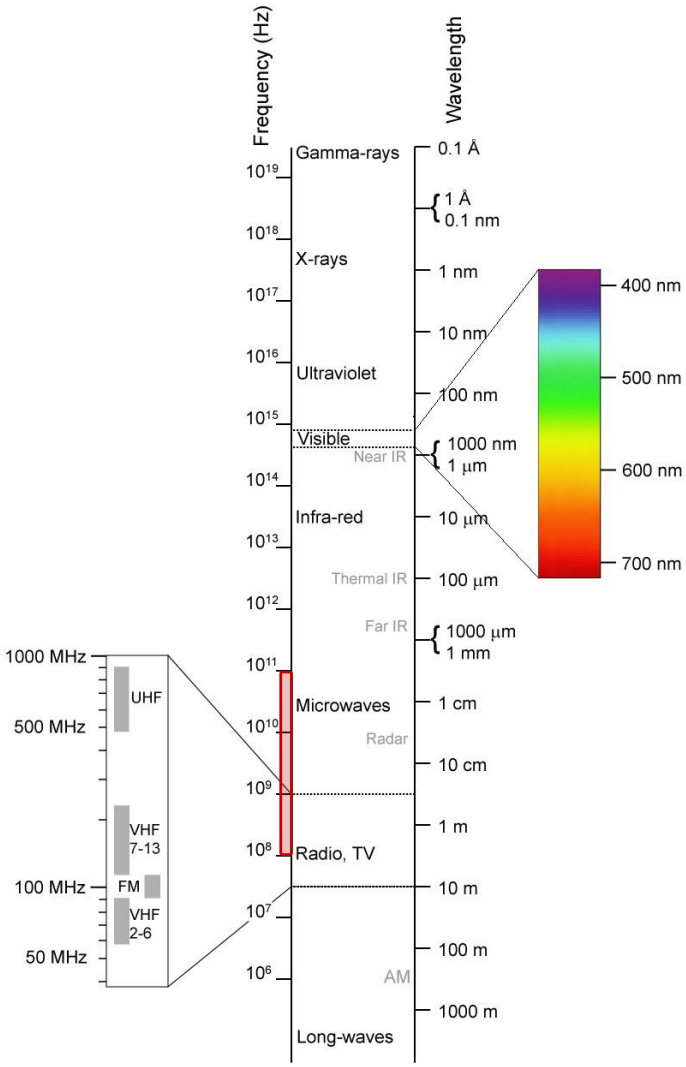


Figure 21: Electromagnetic spectrum File: Electromagnetic-Spectrum.png. (2020, September 12). Wikimedia Commons, the free media repository. Retrieved 03:43, March 2, 2022 from

- A paper published in 2020 by Fioranelli and colleagues (Fioranelli et al., 2020), and which has since been retracted, states that "In this research, we show that 5G millimeter waves could be absorbed by dermatologic cells acting like antennas, transferred to other cells and play the main role in producing Coronaviruses in biological cells." As stated, this paper has been retracted. However, in reality there has NOT been sufficient open and genuine discussion in the scientific field in regard to the impact of 5G, especially given the closeness to the microwave range. I have sought to obtain objective information from molecular biologists and other experts about the merit or lack thereof of such claims and will continue my search, updating this document as appropriate.
  - The NIH website on "Electromagnetic Fields and Cancer"[54] states

[53] https://www.who.int/news-room/questions-and-answers/item/radiation-5g-mobile-networks-and-health
[54] https://www.cancer.gov/about-cancer/causes-prevention/risk/radiation/electromagnetic-fields-fact-sheet

  - "Many studies have examined the association between non-ionizing EMF exposure and cancer in adults, of which few studies have reported evidence of increased risk"
  - "The interpretation of the finding of increased childhood leukemia risk among children with the highest exposures (at least 0.3 μT) [to power lines] is unclear."
  - "In 2015, the European Commission Scientific Committee on Emerging and Newly Identified Health Risks reviewed electromagnetic field in general, as well as cell phones in particular. It found that, overall, ***epidemiologic studies of extremely low frequency fields*** [**NOTE:** 5G does not classify as "extremely low frequency"**]** ***show an increased risk of childhood leukemia with estimated daily average exposures above 0.3 to 0.4 μT***, although no mechanisms have been identified and there is no support from experimental studies that explains these findings."
  - **Interpretation**: With statements such as this, the NIH only makes one thing clear – at the very least, **there is NOT sufficient evidence to either conclusively dismiss the claims that electromagnetic waves are harmful or to conclusively claim that they do not.**

- **4G radiation:** A ruling on May 23, 2022, by the administrative court of Clermont-Ferrand in France "ordered the cessation of operation of the 4G antenna for a period of two months." The reason given by the court is "to establish a potential causal link between the behavior of cattle and this antenna", following, "a significant drop in the quality and quantity of the milk produced, a serious disorder in the behavior of the herd and its voluntary undernutrition and abnormally high deaths"[55]

- Related to **5G radiation**, a recent article by AP news was titled "*The iPhone 12 emits too much radiation and Apple must take it off the market, a French agency says*"[56]. "The ANFR [Agence nationale des frequencies] claims to have found absorption at 5.74 watts per kilogram for its testing on-contact. The European Union (EU) limit for on-contact exposure is 4 watts per kilogram". "SAR is a measure of the amount of radio frequency energy absorbed by the body when using a mobile phone. In the U.S., the FCC requires cell phone manufacturers to ensure that their phones comply with objective limits for safe exposure. Any cell phone at or below these SAR levels (that is, any phone legally sold in the U.S.) is a "safe" phone, as measured by these standards. The FCC limit for public exposure from cellular telephones is an SAR level of 1.6 watts per kilogram (1.6 W/kg)."[57]

- **5G tower and microwave syndrome**: "In this case, report two previously healthy persons, a man aged 63 years and a woman aged 62 years, developed symptoms of the microwave syndrome after installation of a 5G base station for wireless communication on the roof above their apartment. A base station for previous telecommunication generation technology (3G/4G) was present at the same spot since several years. Very high radiofrequency (RF) radiation with maximum (highest measured peak value) levels of 354 000, 1 690 000, and >2 500 000 μW/m2 were measured at three occasions in the bedroom located only 5 meters below the new 5G base station, compared to maximum (peak) 9 000 μW/m2 prior to the 5G deployment. ***The rapidly emerging symptoms after the 5G deployment were typical for the microwave syndrome with e.g., neurological symptoms, tinnitus, fatigue, insomnia, emotional distress, skin disorders, and blood pressure variability***.(Hardell and Nilsson, 2023)

- **5G radiation not sufficiently addressed:** "The fifth generation, 5G, of radiofrequency (RF) radiation is about to be implemented globally without investigating the risks to human health and the environment. This has

[55] https://time.news/in-haute-loire-a-4g-antenna-suspected-of-disturbing-a-herd-of-cows-will-be-arrested/
[56] https://apnews.com/article/france-apple-iphone-radiation-b51b82309100f959c83a2a19536dc934
[57] https://www.mactech.com/2023/09/12/frances-national-frequency-agency-wants-to-ban-the-sale-of-the-iphone-12/

created debate among concerned individuals in numerous countries. I***n an appeal to the European Union (EU) in September 2017, currently endorsed by >390 scientists and medical doctors, a moratorium on 5G deployment was requested until proper scientific evaluation of potential negative consequences has been conducted. This request has not been acknowledged by the EU.*** The evaluation of RF radiation health risks from 5G technology is ignored in a report by a government expert group in Switzerland and a recent publication from The International Commission on Non-Ionizing Radiation Protection. Conflicts of interest and ties to the industry seem to have contributed to the biased reports. ***The lack of proper unbiased risk evaluation of the 5G technology places populations at risk***. Furthermore, there seems to be a cartel of individuals monopolizing evaluation committees, thus reinforcing the no-risk paradigm. We believe that this activity should qualify as scientific misconduct"(Hardell and Carlberg, 2020)

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Figure 22: Image of a Mesquite Tree in close proximity to a 5G tower (Courtesy of the Truth for Health Foundation[58]) some time after the installation of the tower (07/24/21; left) and some months later (02/21/22; right). Notice how the tree dies from left (closest) to right (furthest) relative to the tower. While the source cannot provide a direct causal link between the 5G tower installation and the death of the tree, the hardiness of the Mesquite tree, the high-frequency (microwave range), short-wavelength emissions from 5G towers, and the research, should at the very least, raise a significant concern. The right photograph has been cropped to provide as similar a perspective as the one on the right.

1.2 5G Radiation & COVID-19?

- Rubik and Brown (2021)
  - "5G is a protocol that will use high frequency bands and extensive bandwidths of the electromagnetic spectrum in the vast radiofrequency range from 600 MHz to nearly 100 GHz…"
  - "By crossing boundaries between the disciplines of biophysics and pathophysiology, we present evidence that WCR [fifth generation [5G] of wireless communications radiation] may: (1) cause morphologic changes in erythrocytes including echinocyte and rouleaux formation that can contribute to hypercoagulation [**Interpretation: cause changes to the cells that make the blood cells more prone to coagulate/clot**]; (2) impair microcirculation and reduce erythrocyte and hemoglobin levels exacerbating hypoxia [**Interpretation: decrease oxygen circulation**]; (3) amplify immune system

[58] https://www.truthforhealth.org/

dysfunction, including immunosuppression, autoimmunity, and hyperinflammation [**Interpretation: support abnormal immune responses**]; (4) increase cellular oxidative stress and the production of free radicals resulting in vascular injury and organ damage[**Interpretation: increase cellular stress resulting in organ damage**]; (5) increase intracellular Ca2+ essential for viral entry, replication, and release, in addition to promoting pro-inflammatory pathways [**Interpretation: enhance viral entry and promote inflammation**]; and (6) worsen heart arrhythmias and cardiac disorders[**Interpretation: cause damage to the heart**].

- "**Relevance for Patients**: In short, ***WCR has become a ubiquitous environmental stressor that we propose may have contributed to adverse health outcomes of patients infected with SARS-CoV-2 and increased the severity of the COVID-19 pandemic***. Therefore, we recommend that all people, particularly those suffering from SARS-CoV-2 infection, reduce their exposure to WCR as much as reasonably achievable until further research better clarifies the systemic health effects associated with chronic WCR exposure."

- Radiation-induced pneumonia has been previously reported. Could this have any relevance to the claims by Rubik and Brown (2021).
  - "Radiation-induced organizing pneumonia (RIOP) is an inflammatory lung disease that is occasionally observed after irradiation to the breast." (Otani et al., 2017)

2. Monkeypox

2.1 What is Monkeypox?

- "Monkeypox has been known in Africa since 1958. It is one of a group of infections caused by variola virus, one of the zoonotic viruses. Zoonotic means a virus that lives in an animal host (e.g., monkeys) but can spread to humans with close contact and poor hygiene, such as in areas of Africa. There are several different variola virus infections in addition to Smallpox, which was essentially eradicated with the successful long-standing world-wide vaccination. Other variola infections are Monkeypox (milder than smallpox), Cowpox, Horsepox, Camelpox, and Vaccinia."[59]. Please see Truth for Health Foundation[60] for additional resources.

- As per COVID-19, there appears to be a substantial obsession with avoiding naming a virus with a name that indicates its origin. The reason provided appears to always be to avoid stigmatization. The true drive behind this obsession, however, is hard to discern, but may potentially be related to denial of reality of origin, in addition to development of names that may be potentially more alarming (to hMPXV). The underlying irrationality is reflected in the letter/document of the scientists requesting the name: "Urgent need for a non-discriminatory and non-stigmatizing nomenclature for monkeypox virus"[61]!! – non-discriminatory and non-stigmatizing to who?

2.2 Preplanned?

Is it really a coincidence that every "outbreak" of a dramatized disease has been previously modelled, and often, a couple of months before the "outbreak" (even when the planning has been going on for years)? One can argue that it would be reasonable to model diseases that generally inflict humanity on a regular basis in order to seek to minimize the impact, but….

[59] https://www.truthforhealth.org/2022/05/monkeypox-factsheet/
[60] https://www.truthforhealth.org/
[61] https://virological.org/t/urgent-need-for-a-non-discriminatory-and-non-stigmatizing-nomenclature-for-monkeypox-virus/853

"In March 2021, the Nuclear Threat Initiative (NTI) partnered with the Munich Security Conference (MSC) to conduct a tabletop exercise on reducing high-consequence biological threats. Conducted virtually, the exercise examined gaps in national and international biosecurity and pandemic preparedness architectures and explored opportunities to improve capabilities to prevent and respond to high-consequence biological events. Participants included 19 senior leaders and experts from across Africa, the Americas, Asia, and Europe with decades of combined experience in public health, biotechnology industry, international security, and philanthropy.

The exercise scenario portrayed a deadly, global pandemic involving an unusual strain of monkeypox virus that emerged in the fictional nation of Brinia and spread globally over 18 months." (Yassif et al., 2021)

2.3 Sexually Transmitted Disease?

- Monkeypox DNA has been reported to be found in semen[62,63].
- Antinori et al. (2022) report that "All four monkeypox patients were young adult men who have sex with men (MSM)", and concludes that "the characteristics of the population involved, as well as reported exposure to multiple, condomless sexual contacts, suggest that human-to-human transmission through close physical contact in sexual networks plays a key role in the current outbreak"
- According to several news reports[64,65], citing Dr. David Heymann, former head of the WHO's emergencies department, in his comments to the Associated Press, "the leading theory to explain the spread of the disease was sexual transmission among men at raves held in Spain and Belgium. Monkeypox has not previously triggered widespread outbreaks beyond Africa, where it is endemic in animals." He explains that "We know monkeypox can spread when there is close contact with the lesions of someone who is infected, and it looks like sexual contact has now amplified that transmission."
- "As of May 31, this investigation has identified 17 cases in the United States; most cases (16) were diagnosed in persons who identify as gay, bisexual, or men who have sex with men (MSM)." (Minhaj et al., 2022)
- While spread through direct contact, there is a clear trend of spread among gay, bisexual and other men who have sex with men (MSM) as indicated by WHO[66], and other health authorities', documents directed specifically towards such sexual behavior:
    - UK Health Security Agency (UKHSA)[67]
        - **Monday 6 June 2022**: "People who are gay or bisexual and men who have sex with men remain disproportionately affected."
        - **Wednesday 1 - Friday 3 June 2022** "Currently most cases have been in men who are gay, bisexual or have sex with men…"

[62] https://www.reuters.com/business/healthcare-pharmaceuticals/who-looks-into-reports-monkeypox-virus-semen-2022-06-15/
[63] https://www.reuters.com/business/healthcare-pharmaceuticals/monkeypox-dna-found-semen-handful-cases-researchers-say-2022-06-13/
[64] https://www.foxnews.com/world/monkeypox-spread-sex-raves-europe
[65] https://www.nbcnews.com/health/health-news/monkeypox-likely-spread-sex-two-raves-europe-expert-says-rcna30055
[66] https://www.who.int/publications/m/item/monkeypox-public-health-advice-for-men-who-have-sex-with-men
[67] https://www.gov.uk/government/news/monkeypox-cases-confirmed-in-england-latest-updates

- **Tuesday 31 May 2022**: "Although this advice applies to everyone, the majority of the cases identified to date have been among men who are gay, bisexual and men who have sex with men…"
- **Thursday 26 May 2022**: "Although this advice applies to everyone, a notable proportion of the cases identified to date have been among men who are gay, bisexual and men who have sex with men (MSM)"
- **Wednesday 25 May 2022**: "A notable proportion of the cases identified to date have been among people who are gay, bisexual and MSM,…"
- **Monday 23 May 2022**: "A notable proportion of recent cases in the UK and Europe have been found in gay and bisexual men so we are particularly encouraging these men to be alert to the symptoms." (Dr Susan Hopkins, Chief Medical Adviser, UKHSA)
- **Wednesday 18 May 2022**: "The latest cases bring the total number of monkeypox cases confirmed in England since 6 May to 9, with recent cases predominantly in gay, bisexual or men who have sex with men (MSM). The 2 latest cases have no travel links to a country where monkeypox is endemic, so it is possible they acquired the infection through community transmission. The virus spreads through close contact and UKHSA is advising individuals, particularly those who are gay, bisexual or MSM, to be alert to any unusual rashes or lesions on any part of their body, especially their genitalia, and to contact a sexual health service if they have concerns."

  - WHO:
    - "As of May 21, however, the WHO had confirmed monkeypox among 92 people across 12 countries in Europe and North America, where it is not endemic, with another 28 suspected cases. And unlike the previous cases discovered outside Africa, ***the current outbreaks have occurred in people with no travel history, suggesting that human-to-human transmission is driving the spread***. Despite the increase in cases and human-to-human transmission, ***the risk to the general public remains low***, according to a briefing by the WHO…"(Harris, 2022)
  - CDC:
    - ""This is not COVID," said Capt Jennifer McQuiston, US PHS, DVM, MS, of the **CDC**'s Division of High Consequence Pathogens and Pathology, in a May 23 online media briefing. "We do know a lot about monkeypox from many decades of studying it. And ***respiratory spread is not the predominant worry***. It is contact, and intimate contact, in the current outbreak setting and population""(Harris, 2022). Yet the CDC issued a Traveler's Health Notice[68] that stated "***Wear a mask. Wearing a mask can help protect you from many diseases, including monkeypox***." An update quickly removed this statement.

- Despite the information above, there is still an effort to dramatize the situation[69,70].

[68] https://web.archive.org/web/20220606043843/https://wwwnc.cdc.gov/travel/notices/alert/monkeypox
[69] https://reference.medscape.com/slideshow/monkeypox-6015388?src=wnl_critimg_220603_mscpref&uac=&impID=4296429
[70] https://www.nbcnews.com/health/health-news/who-warns-real-risk-monkeypox-will-become-established-rcna32553

Section 3 - Part of a Bigger Plan

[Please note: this section is currently a work in progress]

The goal of this section is to address various historical and ongoing events, reports, etc., that provide an insight into the rationale behind current events, including, but not limited to, the COVID "pandemic", the COVID shot, the climate emergencies, critical race theory, the sexualization of children, the treatment of young children with so called "gender affirming" drugs etc. For those of us who have studied and continue to study these events, there is no doubt in our minds that all of these efforts addressed here, and the many not addressed, are related and directed towards the singular and ultimate goal of enslaving and destroying humanity.

This section covers:

- The efforts to control and destroy humanity;
- Evidence of planned events;
- How control is achieved – the concept of Mass formation.

1. Effort to Control & Destroy Humanity

1.1 Efforts to Control through a Social Credit System?

While various efforts have been made to deny the desire of mass control of society[71], there is significant evidence of such a desire to control and restrict human behavior and freedom (even if they are not related to microchips). Some of this evidence is provided below:

- MICROSOFT TECHNOLOGY LICENSING, LLC submitted a patent application on 06/20/2019. The publication number assigned was: *WO2020060606* and the patent title is given as "*CRYPTOCURRENCY SYSTEM USING BODY ACTIVITY DATA*". The abstract states:

  "Human body activity associated with a task provided to a user may be used in a mining process of a cryptocurrency system. A server may provide a task to a device of a user which is communicatively coupled to the server. A sensor communicatively coupled to or comprised in the device of the user may sense body activity of the user. Body activity data may be generated based on the sensed body activity of the user. ***The cryptocurrency system communicatively coupled to the device of the user may verify if the body activity data satisfies one or more conditions set by the cryptocurrency system, and award cryptocurrency to the user whose body activity data is verified****"*
- Keeping the above in mind, notice the potential for the technology outlined in the abstract of the research paper published by scientists at MIT(McHugh et al., 2019) to be utilized, under the guise of a distorted misconception of "common good", in a social credit system (such as that available in China) [in order not to dilute what was said the whole abstract is provided with key elements bolded]:

  "Accurate medical recordkeeping is a major challenge in many low-resource settings where well-maintained centralized databases do not exist, contributing to 1.5 million vaccine-preventable deaths annually. ***Here, we present an approach to encode medical history on a***

[71] https://www.usatoday.com/story/news/factcheck/2020/06/12/fact-check-bill-gates-isnt-planning-implant-microchips-via-vaccines/3171405001/

> ***patient using the spatial distribution of biocompatible, near-infrared quantum dots (NIR QDs) in the dermis. QDs are invisible to the naked eye yet detectable when exposed to NIR light.*** *QDs with a copper indium selenide core and aluminum-doped zinc sulfide shell were tuned to emit in the NIR spectrum by controlling stoichiometry and shelling time. The formulation showing the greatest resistance to photobleaching after simulated sunlight exposure (5-year equivalence) through pigmented human skin was encapsulated in microparticles for use in vivo. In parallel, microneedle geometry was optimized in silico and validated ex vivo using porcine and synthetic human skin. QD-containing microparticles were then embedded in dissolvable microneedles and administered to rats with or without a vaccine.* ***Longitudinal in vivo imaging using a smartphone adapted to detect NIR light demonstrated that microneedle-delivered QD patterns remained bright and could be accurately identified using a machine learning algorithm 9 months after application.*** *In addition, codelivery with inactivated poliovirus vaccine produced neutralizing antibody titers above the threshold considered protective.* ***These findings suggest that intradermal QDs can be used to reliably encode information and can be delivered with a vaccine, which may be particularly valuable in the developing world and open up new avenues for decentralized data storage and biosensing****."*

The reality is that this is only one of numerous efforts, that have taken place and continue to take place globally, to control humanity. Other non-COVID/non-vaccine related examples include, but are not limited to:

- The United Nations Conference on Human Settlements - Habitat I Vancouver, Canada, 31 May-11 June 1976 which stated

  > *"Land, because of its unique nature and the crucial role it plays in human settlements, cannot be treated as an ordinary asset, controlled by individuals and subject to the pressures and inefficiencies of the market.* ***Private land ownership is also a principal instrument of accumulation and concentration of wealth and therefore contributes to social injustice****…Land is also a primary element of the natural and man-made environment and a crucial link in an often delicate balance.* ***Public contro1 of' land use is therefore indispensable to its protection as an asset and the achievement of the long-term objectives of human settlement policies and strategies****." Section D, Preamble (1976)*

- World Economic Form (WEF) efforts:
  - In a News Release, published 27 January 2021, titled, Food Innovation Hubs Put Farmers at Head of the Table for Systems Change, Ramon Laguarta, Chief Executive Office of PepsiCo, said: "***Food is one of the main levers we can pull to improve environmental and societal health***. With the right investment, innovation, and robust collaboration, agriculture could become the world's first sector to become carbon negative, whilst meeting the needs of a rapidly growing global population and providing meaningful economic opportunities."[72]
  - A White Paper titled "Meat: the Future series. Options for the Livestock Sector in Developing and Emerging Economies to 2030 and Beyond", promotes alternative proteins (alt-protiens), which "can include plant- or algae-based rather than animal-derived foods, as well as insects and alternative foods that mimic the look, feel and taste of meat, milk and eggs." (WEF, 2019)

[72] https://www.weforum.org/press/2021/01/food-innovation-hubs-put-farmers-at-head-of-the-table-for-systems-change/

- The concept of insect consumption is high on the WEF agenda (practically an obsession)[73]. Under the guise of food shortages the WEF report on food security states "Insect farming for food and animal feed could offer an environmentally friendly solution to the impending food crisis;"
  - **NOTE**: Such efforts ignore the dangerous reality addressed in the following abstract: "From 1 January 2018 came into force Regulation (EU) 2015/2238 of the European Parliament and of the Council of 25 November 2015, introducing the concept of "novel foods", including insects and their parts. One of the most commonly used species of insects are: mealworms (Tenebrio molitor), house crickets (Acheta domesticus), cockroaches (Blattodea) and migratory locusts (Locusta migrans). In this context, ***the unfathomable issue is the role of edible insects in transmitting parasitic diseases that can cause significant losses in their breeding and may pose a threat to humans and animals***…Edible insects are an ***underestimated reservoir of human and animal parasites***. Our research indicates the ***important role of these insects in the epidemiology of parasites pathogenic to vertebrates***… According to our studies the future research should focus on the need for constant monitoring of studied insect farms for pathogens, thus increasing food and feed safety." (Galecki and Sokol, 2019)

- WEF speaker says 'genetic predictions' about disease could impact whether people 'decide to have children'[74]

> *"A lot of people and a lot of different organizations that I work with struggle with questions of genetic predictions, particularly for highly penetrant, meaning it's very very predictive that you will likely develop the disease, like ALS for example, but you don't know when." Nita Farahany said during a panel discussion entitled "Transforming Medicine, Redefining Life."*
>
> *"So, you have incredibly high prediction, but very little sense about when the onset [of the disease] would be."*
>
> *"How do you counsel somebody about how to integrate that information into their lives, whether or not they should do genetic testing?" Farahany asked. "What the implications for their family members may be as well, because if they have that particular gene, that particular mutation, it may very well be that their children have it; Or it may very well implicate whether or not they decide to have children, to pass that along to their children."*

1.2 Efforts to Control Fertility

Concerns have been raised as to the potential that COVID-19 vaccines may affect fertility. Certainly, some of the evidence indicates such a potential. While there is still a necessity for additional research, the literature below indicates that attempts of population control via the use of vaccines have been in the works for many years and even implemented in some countries. This is what we are aware of. It is obviously difficult/impossible to address

[73] https://www.weforum.org/agenda/2021/07/why-we-need-to-give-insects-the-role-they-deserve-in-our-food-systems/
[74] https://www.lifesitenews.com/news/breaking-wef-speaker-says-genetic-predictions-about-disease-could-impact-whether-people-decide-to-have-children

what we are not aware of. This is only some of the evidence, and while it does not relate directly to the COVID-19 vaccines, it indicates the necessity for serious consideration of the claims being made of potential harms to fertility.

- **The desire to control fertility and the population with vaccines**
    - "Given that hCG was found in at least half the WHO vaccine samples known by the doctors involved in administering the vaccines to have been used in Kenya, our opinion is that ***the Kenya "anti-tetanus" campaign was reasonably called into question by the Kenya Catholic Doctors Association as a front for population growth reduction.*****"** (Oller et al., 2017) [**NOTE**: This paper is **wrongly** listed by Retraction Watch[75] as Retracted/Withdrawn although **no** reason is provided. This can be verified at the journal website[76,77].]
    - "Vaccines have been proposed as one of the strategies for population control…Further scientific inputs are required to increase the efficacy of contraceptive vaccines and establish their safety beyond doubt, before they can become applicable for control of fertility in humans." (Gupta and Bansal, 2010)
    - "A priest, president of Human Life International (HLI) based in Maryland, has asked Congress to investigate reports of women in some developing countries unknowingly receiving a tetanus vaccine laced with the anti-fertility drug human chorionic gonadotropin (hCG)… In addition to the World Health Organization (WHO), other organizations involved in the development of an anti-fertility vaccine using hCG include the UN Population Fund, the UN Development Programme, the World Bank, the Population Council, the Rockefeller Foundation, the US National Institute of Child Health and Human Development, the All India Institute of Medical Sciences, and Uppsala, Helsinki, and Ohio State universities. The priest objects that, if indeed the purpose of the mass vaccinations is to prevent pregnancies, women are uninformed, unsuspecting, and unconsenting victims." (1995)
    - "Vaccines are under development for the control of fertility in males and females…The developments on the anti-hCG vaccine for women are encouraging…It is logical to expect that the source of most of the antigens employed for anti-fertility vaccines in the future will be either synthetic (as for GnRH) or from recombinant DNA techniques (hCG and sperm antigens). Vectors such as vaccinia offer an attractive mode of making the anti-fertility vaccines" (Talwar and Raghupathy, 1989)
- **Additional rhetoric indicating the desire to control fertility**
    - In October 2021, Stefan Oelrich, a member of the Board of Management of Bayer and head of the Pharmaceuticals Division spoke at the World Health Summit focused on biotechnological innovation. During his speech, he proudly reported:

> *"We also need to focus on what is socially responsible outside of Europe and ensure sustainable action there. We pledged, this past year, to give an additional* ***100 million women access to contraception in the world****. We've invested* ***400 million, this year, into new plants that are dedicated to just produce a long-acting contraceptives for women in low- and***

[75] http://retractiondatabase.org/RetractionSearch.aspx
[76] https://www.oalib.com/paper/5290033#.Yecs7vhMHIw
[77] https://www.scirp.org/journal/paperinformation.aspx?paperid=81838

> ***middle-income countries****…together with him [Bill Gates] and Melinda Gates, we're working very closely on family planning initiatives as an example for that."*

- **The reality is population demise not over-population:**
    - Despite the drama that is propagated by the United Nations[78] and mainstream media[79] the reality is likely very different.
    - In research, interestingly funded by the Bill & Melinda Gates Foundation, the authors report (Vollset et al., 2020)
        - That their "findings suggest that continued trends in female educational attainment and access to contraception ***will hasten declines in fertility and slow population growth***. ***A sustained TFR [total fertility rate] lower than the replacement level in many countries, including China and India, would have economic, social, environmental, and geopolitical consequences***."
        - Interestingly however, the solution provided addresses the need for adapting, while continuing to refer to contraception as a form of "reproductive health" which is logically irrational, "***Policy options to adapt to continued low fertility, while sustaining and enhancing female reproductive health, will be crucial in the years to come.***"
- https://www.youtube.com/watch?v=O2RIvJ1U7RE EctoLife - The World's First Artificial Womb Facility
    - Artificial wombs (Romanis, 2018;Schwartz, 2019;Romanis, 2020;Warmflash, 2022)

1.3 Efforts to Destroy the Family

- https://www.lifesitenews.com/news/breaking-human-rights-watch-director-trashes-poland-hungary-at-wef-for-championing-family-values/

> *""In Europe, we see Hungary, in particular, and Poland, who have really tried using LGBT rights as a battleground, essentially, to try and harness the support of conservative elements of society," Tirana Hassan said in a discussion entitled "Beyond the Rainbow: Advancing LGBTQI+ Rights."*
>
> *"The government [is] using it to put themselves up as some sort of hero or protector of family values and rights," she continued.*
>
> *"That is not only divisive, it also […] has been known to be linked to increased acts of violence and discrimination."*

1.4 The Climate Change Efforts – Efforts to save the planet or to destroy humanity?

[Please note: this section is currently a work in progress]

[78] https://www.un.org/en/global-issues/population
[79] https://www.cnbc.com/2021/08/09/ipcc-report-un-climate-report-delivers-starkest-warning-yet.html

2. Planned event?

2.1 Scenarios for the Future of Technology and International Development

In 2010 a report issued by the Rockefeller Foundation and Global Business Network (Rockefeller Foundation and Global Business Network, 2010) addresses four futuristic scenarios founded on two uncertainties (1) ***Political and Economic Alignment*** (PEA; on a scale of "Strong" to "Weak") and (2) ***Adaptive Capacity*** (AC; on a scale of "Low" to "High").

- The **goal** of the project is stated to be "to explore the many ways in which technology and development could co-evolve — could both push and inhibit each other — in the future, and then to begin to examine what those possible alternative paths may imply for the world's poor and vulnerable populations."
- The **role of the scenarios** was stated to be to capture "…a range of future possibilities, good and bad, expected and surprising — but always plausible. Importantly, scenarios are not predictions. Rather, they are thoughtful hypotheses that allow us to imagine, and then to rehearse, different strategies for how to be more prepared for the future — or more ambitiously, how to help shape better futures ourselves".
- The 4 **scenarios** (*Lock Step*; *Clever Together*; *Hack Attack*; *Smart Scramble*) were formed from the combination/crossing of the two uncertainties addressed above and their scales. For more details please refer to the actual document (Rockefeller Foundation and Global Business Network, 2010). The scenarios addressed various situations and responses including, but not limited to technology, climate change, government responses, people's responses, etc.).
- However, the ***Lock Step*** scenario bears a significant similarity to the global events that have taken place in the past year since the beginning of the "COVID-19 outbreak". The similarities include:
    - a pandemic caused by a "new influenza strain" and described as "extremely virulent and deadly"
    - "…the ***mandatory wearing of face masks*** to ***body-temperature checks*** at the entries to communal places like train stations and supermarkets."
    - "…***mandatory quarantine*** for all citizens, as well as its instant and near-hermetic sealing off of all borders…"
    - "…heightened oversight took many forms: ***biometric IDs*** for all citizens…"
    - And where it all leads: The report states that "Even after the pandemic faded, this more authoritarian control and oversight of citizens and their activities stuck and even intensified…Citizens willingly gave up some of their sovereignty — and their privacy — to more paternalistic states in exchange for greater safety and stability. Citizens were more tolerant, and even eager, for top-down direction and oversight, and national leaders had more latitude to impose order in the ways they saw fit."

2.2 Event 201

Additional concerns are raised when one considers ***Event 201 – A Global Pandemic Exercises***[80]. As the goal of this document is not geared towards making up the mind of the reader, only limited information is provided, sufficient for the reader to follow up and make up their own mind.

Event 201 is reported to have taken place **Friday, October 18, 2019** at The Pierre hotel, New York, NY. The website shows sponsorships from the **Johns Hopkins Bloomberg School of Public Health, World Economic Form and the Bill & Melinda Gates Foundation**. While confirming credibility and validity has become more difficult in the current age, the fact that this website continues to display the logos of the foundations involved,

[80] https://www.centerforhealthsecurity.org/event201/about

without any difficulty, in addition to the disclaimer addressed below do not appear to indicate fraud with regards to reality of the event actually happening. What, of course, remains totally unknown is whether the denials of any planned pandemic can be believed.

The exercise is described as:

> "…***a 3.5-hour pandemic tabletop exercise that simulated a series of dramatic, scenario-based facilitated discussions, confronting difficult, true-to-life dilemmas associated with response to a hypothetical, but scientifically plausible, pandemic. 15 global business, government, and public health leaders were players in the simulation exercise…***"

A document with recommendations made by the three organizations can also be found on the website[81]. The Event 201 scenario is also described[82]. Interestingly, the first paragraph on the scenario page states:

> "***Event 201 simulates an outbreak of a novel zoonotic coronavirus transmitted from bats to pigs to people that eventually becomes efficiently transmissible from person to person, leading to a severe pandemic. The pathogen and the disease it causes are modeled largely on SARS, but it is more transmissible in the community setting by people with mild symptoms***."

Interestingly, the website has a disclaimer[83]:

> "***In October 2019, the Johns Hopkins Center for Health Security hosted a pandemic tabletop exercise called Event 201 with partners, the World Economic Forum and the Bill & Melinda Gates Foundation. Recently, the Center for Health Security has received questions about whether that pandemic exercise predicted the current novel coronavirus outbreak in China. To be clear, the Center for Health Security and partners did not make a prediction during our tabletop exercise.***"

Coincidence or planned? Coincidence or a major violation of human rights? Coincidence or a crime against humanity?

2.3 NIH Funded Gain-of-Function Research in China

- Claims have been made that the virus was modified in a lab in China. This seems to be confirmed in the report update submitted to the NIH by EcoHealth which states that the results suggest that "the pathogenicity of SHC014 is higher than other tested bat SARSr-CoVs in transgenic mice that express hACE2"[84] and the NIH response document[85].
    - The **original** "limited experiment"
        - was to test "if spike proteins from naturally occurring bat coronaviruses circulating in China were capable of binding to the human ACE2 receptor in a mouse model. All other aspects of the mice, including the immune system, remained unchanged."[86]

[81] https://www.centerforhealthsecurity.org/event201/event201-resources/200117-PublicPrivatePandemicCalltoAction.pdf
[82] https://www.centerforhealthsecurity.org/event201/scenario.html
[83] https://www.centerforhealthsecurity.org/news/center-news/2020/2020-01-24-Statement-of-Clarification-Event201.html
[84] https://republicans-oversight.house.gov/wp-content/uploads/2021/10/Year-5-EHAv.pdf
[85] https://republicans-energycommerce.house.gov/wp-content/uploads/2021/10/NIH-Document-Production-Cover-Letter-2021.10.20_McMorris-Rodgers.pdf
[86] https://republicans-energycommerce.house.gov/wp-content/uploads/2021/10/NIH-Document-Production-Cover-Letter-2021.10.20_McMorris-Rodgers.pdf

        - Outcome: "laboratory mice infected with the SHC014 WIV1 bat coronavirus [i.e. modified virus] became sicker than those infected with the WIV1 bat coronavirus."[19]
        - The group was required to report immediately an increase in infectivity, specifically "a one log [i.e. 10 fold] increase in growth". However, "EcoHealth failed to report this finding right away, as was required by the terms of the grant."[19]

- Support for gain-of-function experiments has been expressed in scientific communication previously. In this document Fauci addresses the necessity for the scientific community to come together to address the opposition to gain-of-function experiments during the gain-of-function research moratorium (Fauci, 2012). As he puts it "we [the scientists] are critical players in the process of policy and decision making related to DURC [Dual Use Research of Concern – see definition in footnote][87], but we are not the only players":
    - "Those of us in the scientific community who believe in the merits of this work have the responsibility to address these concerns thoughtfully and respectfully."
    - "When no reasonable alternatives exist, we must take the scientific approach to making the argument for conducting such experiments [gain-of-function experiments] before they are performed"
- Additional support for the potential planning and intentional modification of the virus may be present in a recent paper describing the perfect genetic similarity of a section of the SARS-CoV-2 viral RNA to a patented sequence (by Moderna; Patent No: US 9,587,003 B2) dating to 2016 (Ambati et al., 2022). While some contest the findings, claiming potential coincidence, as the authors of the paper conclude, "The presence in SARS-CoV-2 of a 19-nucleotide RNA sequence encoding an FCS at amino acid 681 of its spike protein with 100% identity to the reverse complement of a proprietary MSH3 mRNA sequence is highly unusual. ***Potential explanations for this correlation should be further investigated***."

[87] "Dual Use Research of Concern (DURC), under the United States Government Policy, is life sciences research that, based on current understanding, can be reasonably anticipated to provide knowledge, information, products, or technologies that could be **directly misapplied to pose a significant threat**, with broad potential consequences, to public health and safety, agricultural crops and other plants, animals, the environment, materiel, or national security" [my emphasis] .
https://www.research.uci.edu/ref/durc/index.html

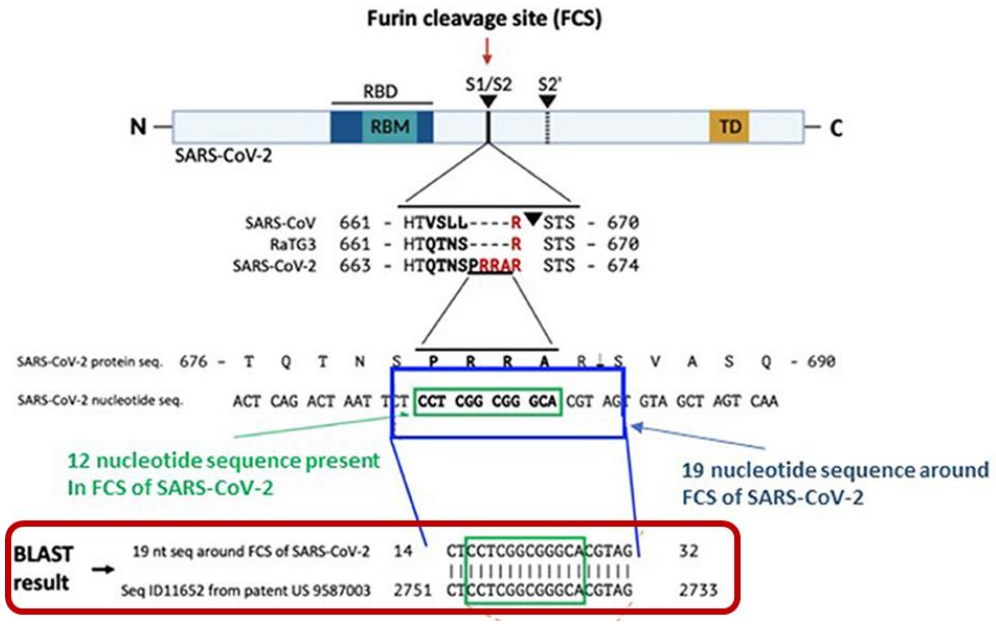
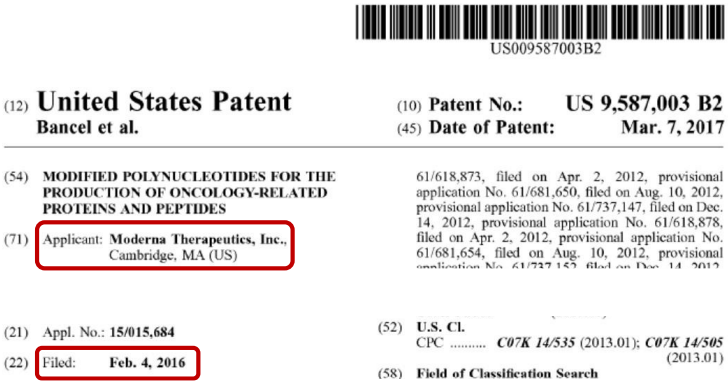


Figure 23: Top half of image from (Ambati et al., 2022). Full image available at: https://www.frontiersin.org/files/Articles/834808/fviro-02-834808-HTML/image_m/fviro-02-834808-g001.jpg *. Red border is mine - added to draw attention of reader to the similarities address in the paper "Figure 1. The origin of the furin sequence in SARS-CoV-2. Comparison of the protein sequences at the S1/S2 junction in SARS-CoV, RaTG13, and SARS-CoV-2 demonstrating the presence of the furin cleavage site (FCS) PRRA only in SARS-CoV-2. Based on a BLAST search of the 12-nucleotide stretch coding for the FCS PRRA, a 19-nucleotide long identical sequence was identified in the patented (US 958 7003) sequence Seq ID11652. SEQ ID11652 is transcribed to a MSH3 mRNA that appears to be codon optimized for humans. This 19-nucleotide sequence including 12 nucleotides coding for the FCS PRRA, present in the human MSH3 gene might have been introduced into the SARS-CoV-2 genome by the illustrated copy choice recombination mechanism in SARS-CoV-2 infected human cells overexpressing the MSH3 gene."*


US009587003B2

(12) **United States Patent**
Bancel et al.

(10) **Patent No.: US 9,587,003 B2**
(45) **Date of Patent: Mar. 7, 2017**

(54) **MODIFIED POLYNUCLEOTIDES FOR THE PRODUCTION OF ONCOLOGY-RELATED PROTEINS AND PEPTIDES**

(71) Applicant: **Moderna Therapeutics, Inc.**, Cambridge, MA (US)

(21) Appl. No.: **15/015,684**
(22) Filed: **Feb. 4, 2016**

61/618,873, filed on Apr. 2, 2012, provisional application No. 61/681,650, filed on Aug. 10, 2012, provisional application No. 61/737,147, filed on Dec. 14, 2012, provisional application No. 61/618,878, filed on Apr. 2, 2012, provisional application No. 61/681,654, filed on Aug. 10, 2012, provisional

(52) **U.S. Cl.**
CPC *C07K 14/535* (2013.01); *C07K 14/505* (2013.01)
(58) **Field of Classification Search**

Figure 24:Screen capture of parts of the first page of the 2016 Patent submission by Moderna https://patentimages.storage.googleapis.com/01/6e/60/8951ab8f4118b5/US9587003.pdf

3. Mass Formation

The idea of a distinction between the individual's behavior when acting as an autonomous entity and that of the individual within the crowd is not a novel idea. This is evident in the work and observations of people such as

Le Bon (Le Bon, 1895/2002), McDougall (McDougall, 1927) and others. Moreover, the idea of controlling humanity through behaviors/actions that induce, make society more prone to crowd behavior is also not novel (e.g., Gilbert, 1947/1995). The information in this section seeks to address the concept, the history and the science of Mass Formation.

3.1 Mass Formation – What is it?

- ***Dr. Mattias Desmet***[88,89], Professor of Clinical Psychology at the University of Ghent, Belgium, has proposed and addressed the current impact of the COVID-19 associated measures in the context of a "***Mass Formation Psychosis***"/"***Mass Formation***" . This is a form of mass hypnosis where a significant proportion of the population is unable to process various realities over a forced, propagated narrative. Mass formation is not a new concept. For example, it describes how so many people in Germany succumbed to the Nazi narrative.

- The following summary, explaining *Mass Formation*, is based on an interview[90] with Dr. Desmet:

  1. The **Requirements** for Mass Formation:

     - Lack of social **connectedness**/social bond
     - Lack of **meaning**-/sense-making in life
     - Free-floating **anxiety –** an anxiety that is not connected to mental representation
     - Free-floating **aggression/frustration –** aggression felt internally but unable to direct towards a specific object/cause.

  2. The **Narrative**

     i. Provides an **anchor** for the free-floating **anxiety** – provides a mental representation
     ii. Leads to **cooperation –** the anxiety-narrative connection leads to a willingness to cooperate with instructions, no matter how absurd.
     iii. Leads to **connectedness/social connectedness** as number of people cooperate with the instructions.
     iv. Social connectedness leads to a certain sense of "**meaning-/sense-making**" of life, even if disordered and extreme.

  3. The **Outcomes** of *Mass Formation:*
     i. A characteristic of this crowd-behavior is the **abandonment of reason** leading to **absurdity** e.g. "pandemic of the unvaccinated"; absurd behaviors – e.g., wearing of masks when alone in a car; wearing of masks when outside. Additional absurdity is published in scientific articles, such as "The results show that faces were considered as most attractive when covered by medical masks and significantly more attractive when occluded with cloth masks than when not occluded." (Hies and Lewis, 2022). However, these behaviors act as an **escape from reality – a symptomatic response**, and allay, though inappropriately and temporarily, the pre-existing anxiety mentioned earlier. This behavior bears similarity to the downward spiral of drug addiction (Koob and Le Moal, 2001).
     ii. A **myopic perspective/limited field of attention** e.g., extreme focus on virus while ignoring collateral damage e.g., psychological, economical, etc. consequences; focus

[88] https://www.researchgate.net/profile/Mattias-Desmet-2
[89] https://www.ugent.be/psync/en/who/desmet_mattias
[90] https://youtu.be/uLDpZ8daIVM

on COVID-19 related deaths and ignoring treatment and deaths associated with other more serious and prevalent diseases e.g. cardiovascular diseases, diabetes.

iii. An **emotional "anesthetic" effect/insensitivity** to reality. This is due to the symptomatic relief produced by following the narrative, despite the absurdity.
iv. An **intolerance to dissenting voices** – as these threaten the "safe space" created/threatens to expose their insecurity.
v. An **aggression** towards dissenting voices. The free-floating aggression finds a place in being directed towards those who disagree.

3.2 Neuroscience and Mass Formation:

- ***Gustave Le Bon*** – French social psychologist, associated the behavior of the individual within the crowd with lower brain activity, impulsive brain function at the cost of inhibition of higher brain functions:

> *"…special characteristics of crowds there are several - such as impulsiveness, irritability, incapacity to reason, the absence of judgment and of the critical spirit, the exaggeration of the sentiments…"* Pg.10. (Le Bon, 1895/2002)

- The brain can be divided into two major regions – upper brain – associated with executive function, and lower brain – associated with more primitive, instinctive behaviors.
  i. The role of the upper brain is to ensure the regulation and control of the lower brain functions.
  ii. Disruption of this dynamic leads to psychopathological behavior (Kovner et al., 2019).
  iii. The disruption of the dynamic between the upper brain and lower brain is also evident in other pathological behaviors including, but not limited to, substance abuse (Koob and Le Moal, 2001;Koob and Volkow, 2009;Koob and Schulkin, 2019), pornography consumption (Beauregard et al., 2001;Kuhn and Gallinat, 2014;Camilleri et al., 2020), etc.
  iv. Cannabis, hypnosis and COVID-19: Despite the political and other support evident in relation to cannabis, cannabis is no different from other drugs of abuse in its association with psychopathology (Nunez and Gurpegui, 2002;Lupica et al., 2004;Pistis et al., 2004;Fattore et al., 2010;Murray et al., 2014;Renard et al., 2014;Ballinger et al., 2015;Meier et al., 2015). Moreover, cannabis is known for its hypnotic effects (Monti, 1977;Kesner and Lovinger, 2020). Thus, it is rather interesting that, in addition to the broad legalization of marijuana, and given the hypnotic state of *Mass Formation*, we suddenly observe scientific literature addressing the potential use of cannabinoids in the treatment of COVID-19 (Nguyen et al., 2021). Additionally, it is interesting to observe Pfizer spending $6.7 billion to enter the medical cannabis industry[91]. Is all this a coincidence? Maybe, or maybe not.

- While there is not a significant body of scientific literature about the concept of *Mass Formation* itself per se, this is potentially due to the numerous concepts/subcomponents and fields of investigation that constitute it. These subcomponents, on the other hand, have been extensively documented and simply need to be coalesced e.g.

[91] https://www.forbes.com/sites/dariosabaghi/2021/12/20/pfizer-to-enter-the-medical-cannabis-industry-with-67-billion-acquisition/?sh=2f8e9d060726

- Bagus et al. (2021)
  - "We argue that mass and digital media in connection with the state may have had adverse consequences during the COVID-19 crisis. The resulting collective hysteria may have contributed to policy errors by governments not in line with health recommendations. While mass hysteria can occur in societies with a minimal state, we show that there exist certain self-corrective mechanisms and limits to the harm inflicted, such as sacrosanct private property rights. However, ***mass hysteria can be exacerbated and self-reinforcing when the negative information comes from an authoritative source, when the media are politicized, and social networks make the negative information omnipresent***. We conclude that ***the negative long-term effects of mass hysteria are exacerbated by the size of the state***."
  - "As a consequence of the COVID-19 crisis, there have been several studies examining the adverse psychological effects of state-imposed lockdowns [(Bartoszek et al., 2020;Choi et al., 2020;Solomou and Constantinidou, 2020;Wang et al., 2020a)]. There are also studies that examine the contribution of digital media and the internet to anxiety [(Sigurvinsdottir et al., 2020;Yang et al., 2020)], emotional contagion [(Valenzano et al., 2020),(Belli and Alonso, 2020)], anxiety transmissions [(Gump and Kulik, 1997),(Zheng et al., 2020)], and nocebo [worsening of symptoms due to expectations of a negative outcome] effects [(Benedetti et al., 2007;Amanzio et al., 2020)]. However, to our knowledge, there has been no study that analyzes how different political institutions and the state affect the development and extension of mass hysteria."
  - "During the COVID-19 crisis, several authors have argued that from a public health point of view, these invasive interventions such as lockdowns have been unnecessary [(Ioannidis, 17 March 2020;Meunier, 2020;Bendavid et al., 2021;Bjørnskov, 2021)] and, indeed, detrimental to overall public health [(Altman, 2020;Tucker, December 25 2020)]. In fact, prior scientific research on disease mitigation measures during a possible influenza pandemic had warned against such invasive interventions and recommended a more normal social functioning [(Inglesby et al., 2006)]. Moreover, in reaction to past pandemics such as the Asian flu of 1957–1958, there were no lockdowns [(Henderson et al., 2009)], and research before 2020 had opposed lockdowns (Gartz and Janaskie, January 13 2021)]."

3.3 Historical and Experimental evidence of the components of Mass Formation

3.3.1 DESTRUCTIVE OBEDIENCE - ***The Milgram experiment*** and what it tells us:

- ***The Milgram Experiment***: a study of ***destructive obedience*** (Milgram, 1963). "It consists of ordering a naive S [subject] to administer increasingly more severe punishment [administering increasingly more powerful shocks for wrong answers] to a victim in the context of a learning experiment". This experiment potentially explains the immense susceptibility of humans to irrational "obedience" to "authorities".
- The Discussion of the paper states that "The experiment yielded two findings that were surprising. The first finding concerns ***the sheer strength of obedient tendencies*** manifested in this situation. Subjects have ***learned from childhood that it is a fundamental breach of moral conduct to hurt another person against his will***. ***Yet***, 26 subjects ***abandon this tenet in following the instructions of an authority who has no special powers to enforce his***

commands. To disobey would bring no material loss to the subject; no punishment would ensue. It is clear from the remarks and outward behavior of many participants that in punishing the victim they are often acting against their own values."

- "The second unanticipated effect was the ***extraordinary tension generated by the procedures***. One might suppose that a subject would simply break off or continue as his conscience dictated. Yet, this is very far from what happened."

NOTE: **If people can respond the way Milgram observed in his study when there was no material loss or punishment, one can imagine the extent of absurdity and cruelty people may be driven towards when the "authorities" intentionally emphasize aspects that impact material loss (e.g., sickness, death, personal wealth, etc.) and utilize threats (veiled or not veiled) to induce submission (e.g., loss of employment, inability to interact with society, including loved ones, inability to travel, etc.).**

3.3.2 CONFORMITY – What Scientific Observation Tells Us:

Evidence pertaining to a key component of mass formation – conformity exists in various experiments that took place over the past century. This section is not exhaustive of the studies conducted but addresses some.

- ***1910's – Munsterberg Experiment*** (Münsterberg, 1914): "The Munsterberg (1914) methodology involved giving subjects a test, then giving the subjects correct or incorrect information as to how the remainder of the group responded, followed by a second administration of the original test. Shifts in the subjects' responses in the direction of the experimentally offered information were regarded as measures of conformity." (Schnee, 1972)
- ***1930's - The Jenness Social Influences in the Change of Opinion Experiment***: In the 30's ***Jennes*** (Jenness, 1932a;b) conducted a series of experiments addressing the dynamics and role of social influence on opinions.
- ***1950's - The Asch Conformity Experiment***: In the 50's, ***Asch*** (Asch, 1951;Asch, 1956) conducted a series of studies seeking to investigate ***people's tendency to conform under the social pressure of a unanimous majority***.
    - **The study** consisted of a "A group of eight individuals [that] was instructed…to match the length of a given line with one of three unequal lines"
    - **The participants**: "The group in question had, with the exception of one member, previously met with the experimenter and received instructions to respond at certain points with wrong and unanimous judgments."
    - **The object of investigation**: The outstanding person the critical subject whom we had placed in the position of a minority of one in the midst of a unanimous majority was the object of investigation. He faced, possibly for the first time in his life, a situation in which a group unanimously contradicted the evidence of his senses"
    - **Observations**: 74% of participants conformed on at least 1 critical trial; 26% of participants never conformed.
    - In the 70's, Larsen (Larsen, 1974) sought to replicate Asch's study and found similar conformity in females but less conformity in males relative to what Asch had found (Asch's experiment had

only used males). Larsen attributed this to potential variability in conformity across different time periods.

- ***1980's - The Abilene Paradox - a failure to manage agreement***: (Harvey, 1988). The observations reported by Harvey reflect a more subtle dynamic within crowd behavior, and may, at first, not appear to relate to crowd behavior. Speaking from the perspective of optimal organizational functioning, he points out that **confusion** in communication, irrespective of **agreement** in regard to an existing problem and the necessity to address the problem, leads to counterproductive measures and experiences of "frustration, anger, irritation, and dissatisfaction with their organization" leading to division (Harvey refers to this as the Abilene Paradox). Thus, while Harvey's observations do not directly address mass formation, they indirectly address the psychology behind the creation of division to rule the masses (divide and rule). An example reflecting this dynamic is the death of George Floyd and the subsequent riots and destruction at an international level. In this situation, there was an agreement of a presence of a potential injustice and an agreement of the necessity to rectify it, but with confusion as to how to do so, and leadership from groups that had no intention of providing clarity and a just way of dealing with the injustice. Contrary to Harvey's goals of keeping an organization together, the agreement/confusion dynamic and resulting "frustration, anger…" were utilized to the advantage of the underlying ideology of the groups involved and to the detriment of society…i.e., contrary to Harvey's efforts to assist organizations in ***avoiding*** resentment, the agreement/confusion dynamic was utilized to ***generate*** resentment. Harvey states that the Abilene Paradox can be summarized as follows: "Organizations frequently take actions in contradiction to the data they have for dealing with problems and, as a result, compound their problems rather than solve them." Applying this statement to the events mentioned above pertaining to George Floyd, one can see how organizations can take intentional action that is contrary to the just/truthful/optimal outcome, leading to a compounding of the problem (e.g., increased division) rather than a resolution.

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