

# Bradford Hill criteria applied to COVID vaccines

Do the COVID vaccines meet the Bradford Hill criteria for causation of injuries and deaths?



ColleenHuberNMD  
Apr 22

❤️ 87

💬 19



© Colleen Huber, NMD

How do we know if society-wide changes are responsible for health effects in populations? Population-wide environmental factors may or may not be related to subsequent health changes in the population and present difficulty in determining cause and effect, especially if multiple large-scale events happen in a close time frame.

Sir Austin Bradford Hill published a set of criteria to assess for or to determine epidemiological causality in 1965. [1] These have become generally accepted standards for assessing which causes can be reasonably tied to which effects in our infinitely variable, often chaotic and abundantly populated world.

Let's consider the example of the city of Flint, Michigan, which in early 2015 experienced a rise in lead content of its municipal tap water from 104 parts per billion (ppb) to a 707 ppb in only two months, and in some places over 13,000 ppb. [2] [3] To put that in perspective, the Environmental Protection Agency (EPA) established an upper safety limit of 15 ppb in drinking water. As might be expected, Flint residents soon showed widespread clinical signs and symptoms that were consistent with known effects of lead poisoning, such as skin rashes, nausea, hair loss and anxiety and depression. [4] Such signs and symptoms of lead toxicity had been known for centuries, and are well-documented by toxicologists. There were other data that met Bradford Hill criteria, which led to the conclusion of cause and effect between the higher than usual levels of lead found in Flint drinking water and observed signs and symptoms of poisoning in the Flint population.

A half century later after Bradford Hill published his list, by applying and examining these criteria in 2015, epidemiologists were able to attribute the clinical presentations of Flint residents to the sudden spike of lead contamination in their drinking water, as opposed to other possible mass-scale causes.

Hill's criteria can be summarized as follows:

- 1) **Strength of Association:** Are there very different findings among populations with different environmental exposures? Is one population much more likely to experience a common effect than another, in which the two populations differ in some environmental exposure? If so, by what factor or rate of prevalence of an observed health parameter?
- 2) **Consistency:** Do independent observers see the same pattern or association between two variables being considered? Is the association observed among multiple populations, or across multiple studies by different authors? If there are animal studies, are the findings in humans consistent with the findings in the animal studies?
- 3) **Specificity:** Does the substance of exposure cause a specific set of diseases or symptoms?
- 4) **Temporality:** Does exposure precede the onset of a disease or condition? How close in time?
- 5) **Biological gradient, or dose-response:** Does greater exposure correlate with more incidence of or more severe clinical effects?
- 6) **Plausibility:** Does a cause-effect relationship between the two variables make sense from a point of view of a commonly held understanding of biochemistry or physiology and known toxicology data?
- 7) **Coherence:** Does everything about the cause-effect possibility make sense, and stand the test of time and different ways of analyzing the data?
- 8) **Experiment:** Does greater exposure produce more effect? Does discontinuance of exposure reduce or eliminate the effect?
- 9) **Analogy:** Does a similar agent cause a similar disease?

Since the international release of the COVID vaccines in December 2020, there have been anomalous health events reported around the world. But is there a cause-and-effect relationship between the vaccines and human health events, including higher rates of deaths from all causes, cardiovascular injury and COVID positivity? Some of

the following analysis refers to and relies on data reported in my Neither Safe Nor Effective article on COVID vaccines, [5] and a reader of that article will find some of the references below familiar, but there are also newer data that I cite below.

A wide variety of human health events, that differed in incidence and prevalence from before, has been reported following administration of the COVID vaccines.

Let's apply Bradford Hill's nine criteria one at a time, as follows, in order to see if a causal relationship between the COVID vaccines on the one hand, and increased injuries, infections and deaths on the other hand, is likely or not.

1) **Strength of association** may be seen in vaccinated versus unvaccinated populations. We can see there is a difference expressed in the government health statistics of a number of countries, as well as in Pfizer data, whereas vaccinated populations have different rates of certain types of injuries than the unvaccinated. There were over 158,000 adverse events among vaccinated people observed in the Pfizer clinical trials within the first 90 days after vaccine administration, [6] and this information was released by Pfizer and the FDA only under court order. [7]

From CDC data, the association of COVID vaccine uptake with death is 49 times stronger than the flu shot in the US. [8] Although the vaccines have only been available for about 16 months at this writing, already over 50,000 Americans are permanently disabled after one or more doses of these vaccines. [9] [10]

COVID vaccination rates in the US roughly correlate with higher rates of reported COVID positivity. From the New York Times, we see higher rates of both in the northeast US, and less through the plains states and the south. [11] Deaths attributed to COVID-19 do not correlate, but it must be considered that the threshold instructed by the CDC for attributing death to COVID-19 for vaccinated individuals is different than for unvaccinated individuals, or for those vaccinated less than two weeks before death. Therefore, total deaths are a more reliable marker than "COVID-19 deaths." The New York Times article omits total deaths, and states are slow to report these.

2) **Consistency** across countries and across continents is observed. In addition to the consistency among the data of six countries noted in paragraph 4 below, it was found in India also that the COVID vaccines displayed negative efficacy against Omicron. [12] This is in addition to consistent findings among various other countries in paragraphs 1 and 4 herein. Consistency was also found with the US military: One of

the youngest and fittest cohorts in the United States, the military's own recruits, has experienced an 1100% increase in deaths following their mass mandatory vaccination. [13] The medical literature now contains over 1,000 studies regarding injuries and deaths following the COVID vaccines. [14]

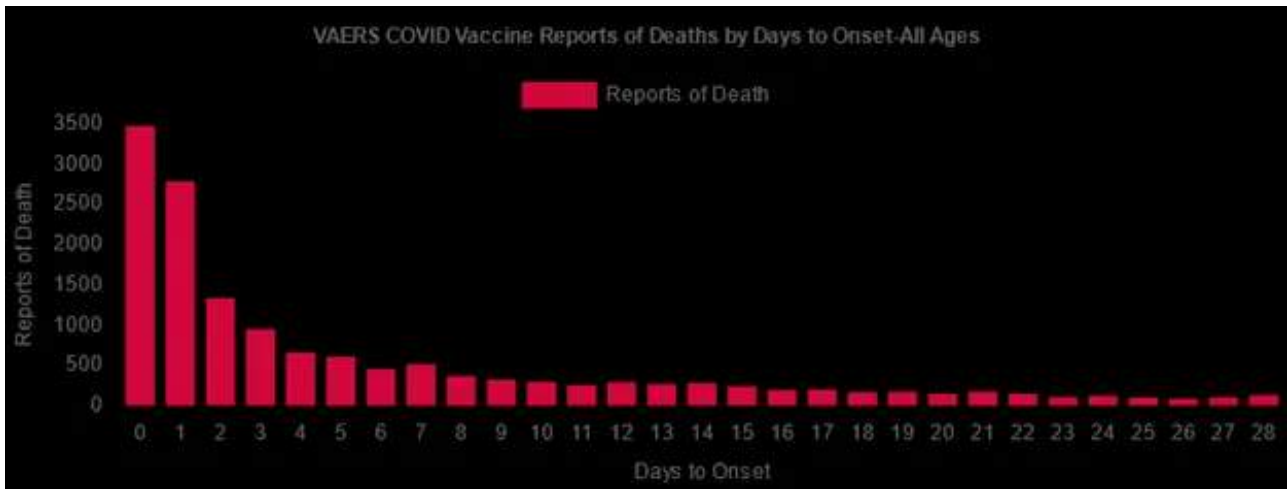
3) **Specificity** is seen in a number of disease and injury conditions as follows. We find higher rates of Omicron among the vaccinated populations of various countries, as in paragraphs 1, 2 and 4 herein, as well as the cardiac injuries discussed in paragraph 6. However, the documents that Pfizer released under Court order revealed over 1500 types of adverse events observed following the COVID vaccines, which affect all major organ systems. This would argue against specificity; however, we know that it is more common for an environmental toxicant to have a variety of systemic toxic effects, rather than only a specific observed effect in a specific bodily organ. In the matter of adverse events following the COVID vaccine administration, heart injury, including myocarditis and neurological injuries and increasing rates of COVID positivity and deaths from these predominate among other reported effects. The cardiovascular injury effect is more specific in that young males are affected more than other demographic groups, according to the CDC. [15] US Health and Human Services Secretary (HHS) Xavier Becerra acknowledged in a White House video session that "We know that vaccines are killing people of color, blacks, Latinos, indigenous people at about two times the rate of white Americans." [16]

The predominant observed pathologies in the COVID vaccinated have been, and as are supported in this paper, as follows: COVID positivity, cardiovascular injury and deaths from all causes. Secondarily, we see neurological injuries, hepatic injuries and cancers in the COVID-vaccinated, and the latter have fewer supporting studies at this time than the first group, but may all be seen in the Pfizer court-released document referenced above..

4) **Temporality** is seen in Ireland in significantly rising COVID cases following widespread COVID vaccine administration. [17] This was also the case in Germany and South Korea [18] and in Israel for the Delta variant. [19] and in Omicron incidence in Denmark. [20] [21]

The VAERS system in the US shows evidence of close temporality. Approximately 50% of deaths occur within the first two days following vaccine administration, as

seen in the graph below from Open VAERS, which summarizes VAERS data in a verifiable way. [22] [23]

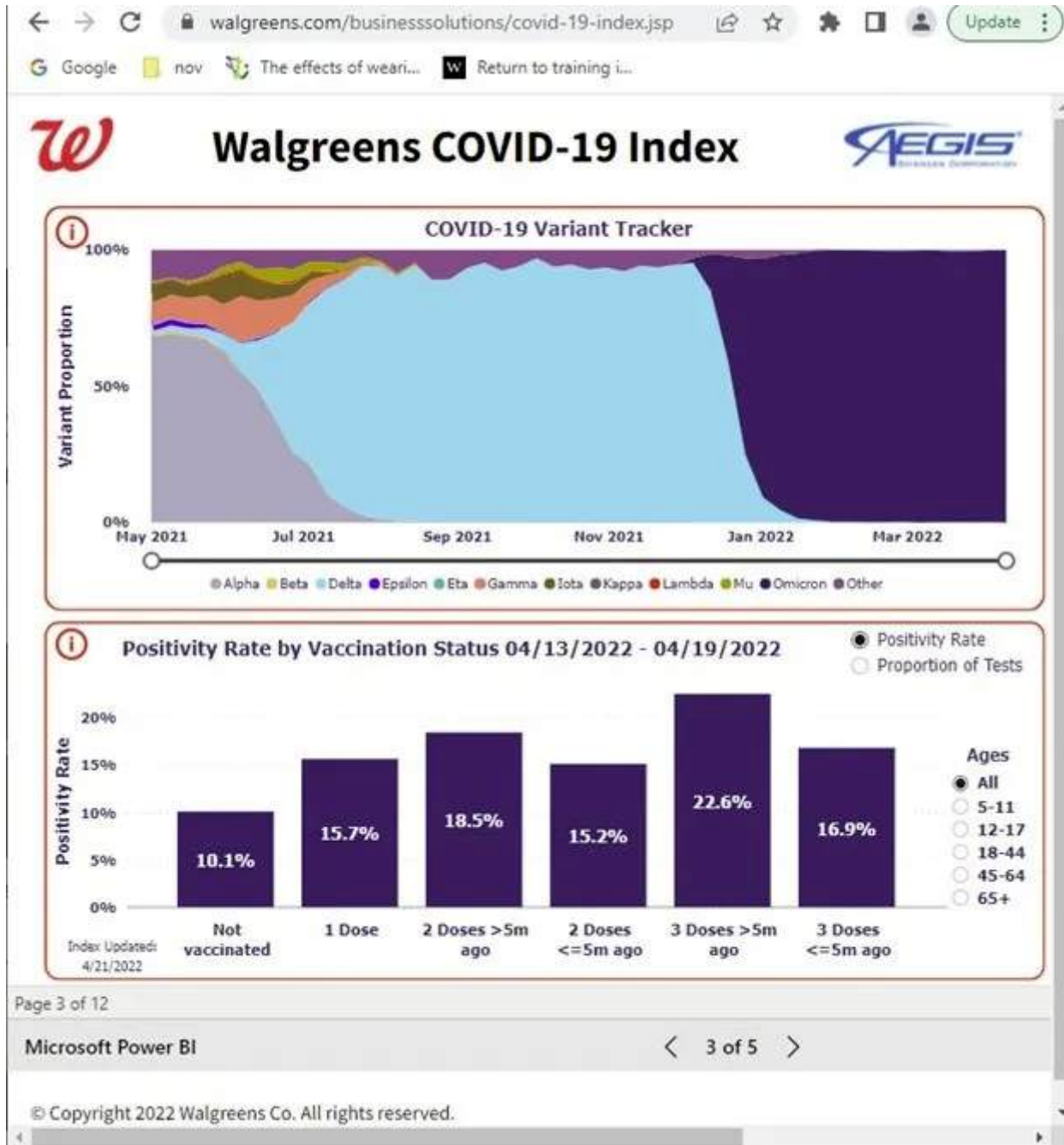


The above graph, a compilation of reports to VAERS of deaths following COVID vaccines in the United States by number of days between those events, adheres to a hyperbolic attenuating curve, which further supports cause-effect by temporality. A lack of causation from vaccines to deaths should result in an erratic curve of temporality, without pattern.

5) **Biological gradient or dose-response** was seen in the following countries, according to their governments' data:

Case positivity [24] and risk of death were shown to be successively higher with each successive vaccine dose in the UK. [25] [26] [27] In Germany also, the higher the number of vaccines given, the higher the excess mortality. [28]

In the US, Walgreens, one of the two largest pharmacy chains, shows more COVID positivity correlated with more vaccines, as below. [29]



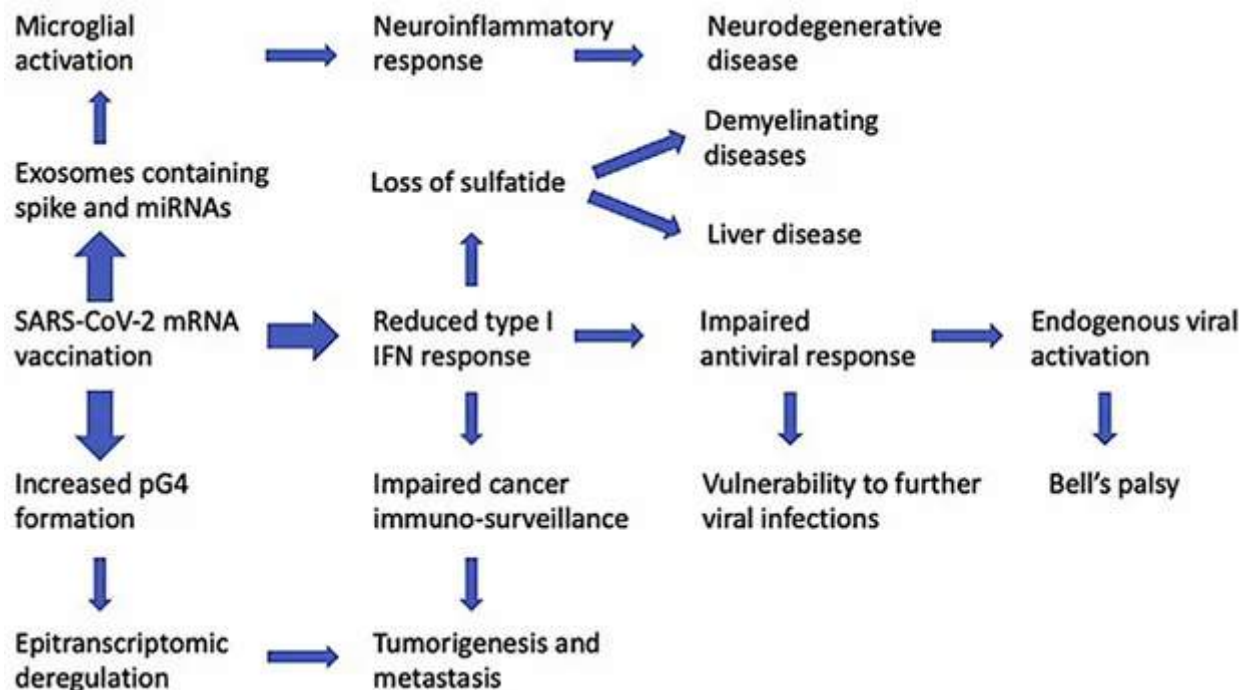
Furthermore, higher doses of a single vaccine injection were correlated with more heart damage than lower doses. Specifically, Moderna’s vaccine contains 100 micrograms (mcg or  $\mu\text{g}$ ) of mRNA, whereas Pfizer’s vaccine contains 30 mcg of mRNA. In an enormous study of 23 million Scandinavians, published in the Journal of the American Medical Association, JAMA Cardiology, the Moderna vaccine was correlated with higher rates of myocarditis and pericarditis than the Pfizer vaccine, and the second dose of mRNA vaccine resulted in higher rates of heart damage than only receiving one dose. Each vaccinated group, both Pfizer and Moderna, both single-vaccinated and double-vaccinated had higher rates of heart damage than unvaccinated people. [30]

Myocarditis is considered to be permanently debilitating, and life-shortening, as there is no replacement mechanism for dead cardiomyocytes (the cells that together accomplish the pumping work of the heart).

6) **Biological plausibility** for the elevated deaths associated with the COVID vaccines is now theorized. The preponderance of evidence for cardiovascular damage is by means of micro-clotting induced by the mRNA-driven ongoing generation of spike proteins. [31] [32] [33] [34] [35]

Biological plausibility for the higher rates of Omicron and Delta in vaccinated populations is supported by evidence of damage to the innate and adaptive immune systems, which have been observed to result from these vaccines. [36]

Seneff, Nigh, et al. have outlined observed mechanisms of damage caused by mRNA vaccines, including to innate immunity, especially through damage to our most essential cytokine for fighting viral infections, namely, Type I interferon. Here is their diagram of the scope of mRNA vaccine damage, as currently understood: [37]



© S Seneff, G Nigh, A Kyriakopoulos, P McCullough, Innate Immune suppression by SARS-CoV-2 mRNA vaccinations... Endnote #37

The damage to endogenous interferons leaves the vaccinated more vulnerable to both viruses and cancer, as our innate immunity mechanisms of vigilance against cancer and viruses becomes impaired.

7) **Coherence** is established by consistency among different ways of analyzing the data. Independent data analysts, using nine different types of analysis, have calculated that the number of Americans killed by the COVID vaccines numbers approximately 388,000, but is at least 150,000. [38] [39]

8) **Experiment** in human populations is unlikely to happen overtly with the COVID vaccines, but self-selecting populations give us an experimental and a control group. In Scotland the unvaccinated had the lowest case rates. [40] The various countries shown in paragraphs 1 and 5 also compared the vaccinated as an experimental group versus the unvaccinated as a control group, with each self-selected and not randomized.

In this very small, controlled, but not randomized and not blinded study of US high school athletes, control versus experimental groups were established by the athletes' parents' prior choices. None of the unvaccinated students had fatigue, chest pain or declining performance. All of the COVID vaccinated students had some of these symptoms, and all have persistence sports performance deficits compared to their previous performance. [41]

Informal reports of widespread cardiac arrest and deaths in athletes have been reported individually, but a pattern of these events has not been acknowledged by governments, sports associations or mainstream media, but have come from several hundred reports from dozens of countries. The actual events of athletes collapsing on fields has been witnessed by millions of sports fans in stadiums since early 2021. This article lists each of 942 such events, the athletes' name, country, date of event and link to the original news article. [42]

9) **Analogy:** Widespread organ damage was seen with previous attempts to use cationic lipid carrier for mRNA delivery. [43] In this Cell study, whether by intradermal or intramuscular injection, lipid nanoparticles carrying mRNA given to mice were highly inflammatory, with high neutrophil infiltrations, and with “a high mortality rate, with mechanism unresolved.” [44]

High mortality has also been observed in animal studies of attempts to vaccinate against coronaviruses. [45] [46]

A brief index of the studies referenced above and listed below in the endnotes may be seen in the following table, organized by application of Bradford Hill criteria. Some

studies may be notable in additional categories as well as those listed, and there are many studies not listed here which also address the Bradford Hill criteria, including the over 1,000 NIH studies on Pub Med, including those cited in the article at endnote #14, that support the above data.

Bradford Hill criteria applied to COVID vaccine injuries & deaths	Increase COVID positivity	Cardiovascular injuries	Deaths from all causes
Studies cited herein, by endnote #			
Strength of association	11	7, 30	7, 9,
Consistency	12, 17, 18, 19, 20, 21, 24, 29	42	13, 14, 25, 26, 27, 28
Specificity	12, 17, 18, 19, 20, 21	15, 30	16
Temporality	17, 18, 19, 20, 21	42	22, 23
Dose-dependence	24, 29	30	25, 26, 27, 28
Biological plausibility	36, 37	31, 32, 33, 34, 35	37
Coherence	37	37	38, 39
Experiment	40	36, 41, 42	14
Analogy	46	43	44, 45, 46

[1] K Fedak, A Bernal, et al. Applying the Bradford Hill criteria in the 21st century: how data integration has changed causal inference in molecular epidemiology. Sep 30 2015. Emerg Themes Epidemiol.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4589117/>

[2] US Environmental Protection Agency. Memorandum. Nov 4 2015.

[https://www.epa.gov/sites/default/files/2015-11/documents/transmittal\\_of\\_final\\_redacted\\_report\\_to\\_mdeq.pdf](https://www.epa.gov/sites/default/files/2015-11/documents/transmittal_of_final_redacted_report_to_mdeq.pdf)

[3] University of Notre Dame. Virginia Tech researchers explain the Flint water crisis. Dec 8 2016. <https://science.nd.edu/news/virginia-tech-researchers-explain-the-flint-water-crisis/#:~:text=The%20EPA%20recommends%20that%20water,was%20a%20staggering%2013%2C000%20ppb.>

[4] J Dean. Water crisis took toll on Flint adults' physical, mental health. Apr 15 2021. Cornell Chronicle. <https://news.cornell.edu/stories/2021/04/water-crisis-took-toll-flint-adults-physical-mental-health>

[5] C Huber. Neither safe nor effective – The COVID vaccines are hazardous and should not be used. Apr 17 2022.



The Defeat Of COVID

### Neither Safe Nor Effective - The COVID Vaccines Are Hazardous and Should Not Be Used

I have updated my January 2022 paper on deaths and hospitalizations correlated with the COVID vaccines, to incorporate recent data from governments in several countries. The COVID vaccines are alarmingly and irredeemably unsafe, as well as ineffective for the advertised purposes. It is increasingly demonstrated by national and state governments, physi...

Read more

6 months ago · 84 likes · 28 comments · ColleenHuberNMD

[6] Pfizer Worldwide Safety. 5.3.6 Cumulative analysis of post-authorization adverse event reports of PF-07302048 (BNT162B2) received through 28 Feb 2021. P 7. <https://phmpt.org/wp-content/uploads/2021/11/5.3.6-postmarketing-experience.pdf>

[7] US District Court. Northern District of Texas. Public Health and Medical Professionals for Transparency vs Food and Drug Administration. Sep 16 2021. Complaint for declaratory and injunctive relief. <https://phmpt.org/wp-content/uploads/2021/10/001-Complaint-101021.pdf>

[8] Centers for Disease Control and Prevention (CDC) Vaccine Adverse Event Reporting System (VAERS). <https://wonder.cdc.gov/vaers.html>

[9] Open VAERS. COVID vaccine data. <https://openvaers.com/covid-data/mortality>

[10] Vaccine Adverse Event Reporting System. Dept of Health and Human Services. <https://vaers.hhs.gov/>

- [11] New York Times. Coronavirus in the US: Latest map and case count. Updated Apr 20 2022. <https://www.nytimes.com/interactive/2021/us/covid-cases.html>
- [12] A Dutt. Out of 34 Omicron cases at Delhi hospital, 33 are fully vaccinated. The Indian Express. Dec 23 2021. <https://indianexpress.com/article/cities/delhi/out-of-34-omicron-cases-at-delhi-hospital-33-are-fully-vaccinated-7686188/>
- [13] Sen Ron Johnson. Video Release: Sen. Ron Johnson COVID-19 A Second Opinion Panel garners over 800,000 views in 24 hours. Jan 25 2022. <https://www.ronjohnson.senate.gov/2022/1/video-release-sen-ron-johnson-covid-19-a-second-opinion-panel-garners-over-800-000-views-in-24-hours>
- [14] How much more evidence do you need? <https://elcolectivodeuno.wordpress.com/2021/12/29/how-much-more-evidence-do-you-need-here-is-a-list-of-860-scientific-studies-and-reports-linking-covid-vaccines-to-hundreds-of-adverse-effects-and-deaths/>
- [15] US Centers for Disease Control and Prevention (CDC) Myocarditis and Pericarditis. Nov 12 2021. <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/myocarditis.html>
- [16] X Becerra. White House Convening on Equity. Apr 14 2022. <https://t.me/robinmg/18804>
- [17] J Horgan-Jones. The Irish Times. Jan 22 2022. Total of 100,000 Covid vaccines expire amid slowing demand, Ministers told. <https://www.irishtimes.com/news/ireland/irish-news/total-of-100-000-covid-vaccines-expire-amid-slowng-demand-ministers-told-1.4782708>
- [18] Johns Hopkins University. Our World in Data. <https://ourworldindata.org/coronavirus#explore-the-global-situation>
- [19] S Gazit, R Shlezinger, et al. SARS-CoV-2 naturally acquired immunity vs vaccine-induced immunity, reinfections vs breakthrough infections, a retrospective cohort study. Clin Infect Dis. Apr 5 2022. <https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciac262/6563799>
- [20] C Hansen, A Schelde, et al. Vaccine effectiveness against SARS-CoV-2 infection with the Omicron or Delta variants following a two-dose or booster BNT162b2 or

mRNA-1273 vaccination series: A Danish cohort study.

<https://www.medrxiv.org/content/10.1101/2021.12.20.21267966v3.full.pdf>

[21] Status of the SARS-CoV-2 variant Omicron in Denmark. COVID-19 Omicron variant report. Dec 31 2021. Statens Serum Institut.

<https://files.ssi.dk/covid19/omikron/statusrapport/rapport-omikronvarianten-31122021-ct18>

[22] Vaccine Adverse Event Reporting System. Dept of Health and Human Services.

<https://vaers.hhs.gov/>

[23] Open VAERS. COVID vaccine data. <https://openvaers.com/covid-data/mortality>

[24] Office for National Statistics. Coronavirus (COVID-19) infection survey, UK: Characteristics related to having an Omicron compatible result in those who test positive for COVID-19. Dec 21 2021.

<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/adhocs/14107coronaviruscovid19infectionsurveyukcharacteristicsrelatedtohavinganomicroncompatibleresultinthosewhotestpositiveforcovid19>

[25] UK Health Security Agency. COVID-19 vaccine surveillance report. Week 9. Mar 3 2022.

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1058464/Vaccine-surveillance-report-week-9.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1058464/Vaccine-surveillance-report-week-9.pdf)

[26] UK Office for National Statistics. Deaths by vaccination status, England.

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsbyvaccinationstatusengland>

[27] Lifesite News. British children are up to 52 times more likely to die following a COVID shot. Feb 2 2022. <https://www.lifesitenews.com/news/children-in-britain-up-to-52-times-more-likely-to-die-following-a-covid-shot-report-finds/>

[28] R Steyer, G Kappler. The higher the vaccination rate, the higher the excess mortality. Nov 16 2021. <https://www.skirsch.com/covid/GermanAnalysis.pdf>

<https://www.utebergner.de/cms/wp-content/uploads/2021/11/%C3%9Cbersterblichkeit-KW-36-bis-40-in-2021-003.docx>

- [29] Walgreens. Walgreens COVID-19 Index. Apr 3 2022 to Apr 19 2022.  
<https://www.walgreens.com/businesssolutions/covid-19-index.jsp>
- [30] Karstad, Hovi, et al. SARS-CoV-2 vaccination and myocarditis in a Nordic cohort study of 23 million residents. *JAMA Cardiology*. Apr 21 2022.  
[https://jamanetwork.com/journals/cardiology/articlepdf/2791253/jamacardiology\\_karlstad\\_2022\\_oi\\_220012\\_1649705559.15066.pdf](https://jamanetwork.com/journals/cardiology/articlepdf/2791253/jamacardiology_karlstad_2022_oi_220012_1649705559.15066.pdf)
- [31] S Bhakdi, A Burkhardt. On COVID vaccines: Why they cannot work, and irrefutable evidence of their causative role in deaths after vaccination.  
<https://doctors4covidethics.org/wp-content/uploads/2021/12/end-covax.pdf>
- [32] S Gundry. Abstract 10712: Observational findings of PULS cardiac test finding for inflammatory markers in patients receiving mRNA vaccines. Nov 8 2021. *Circulation*. 2021; 144: A10712.  
[https://www.ahajournals.org/doi/10.1161/circ.144.suppl\\_1.10712](https://www.ahajournals.org/doi/10.1161/circ.144.suppl_1.10712)
- [33] C Huber. Heart damage from the COVID vaccines: Is it avoidable? Jul 14 2021. *PDMJ*. [https://pdmj.org/papers/myocarditis\\_paper](https://pdmj.org/papers/myocarditis_paper)
- [34] T Buzhdygan, B DeOre, et al. The SARS-CoV-2 spike protein alters barrier function in 2D static and 3D microfluidic in-vitro models of the human blood-brain barrier. *Neurobiol Dis*. Dec 2020. 146: 105131.  
<https://www.ncbi.nlm.nih.gov/labs/pmc/articles/PMC7547916/>
- [35] J Schauer, S Buddhe, et al. Persistent cardiac MRI findings in a cohort of adolescents with post COVID-19 mRNA vaccine myopericarditis. *J Pediatrics*. Mar 25 2022. <https://doi.org/10.1016/j.jpeds.2022.03.032>
- [36] F Fohse, B Geckin, et al. The BNT162b2 mRNA vaccine against SARS-CoV-2 reprograms both adaptive and innate immune responses. May 2021. *MedRxiv*.  
<https://www.medrxiv.org/content/10.1101/2021.05.03.21256520v1.full-text>
- [37] S Seneff, G Nigh, et al. Innate immune suppression by SARS-CoV-2 mRNA vaccinations: the role of G-quadruplexes, exosomes and microRNAs. Jun 2022. *Food and Chem Toxicol*. 164: 113008.  
<https://www.sciencedirect.com/science/article/pii/S027869152200206X?via%3Dihub>

[38] S Kirsch, J Rose, M Crawford. Estimating the number of COVID vaccine deaths in America. Dec 24 2021. <https://www.skirsch.com/covid/Deaths.pdf>

[39] S Kirsch. Latest VAERS estimate: 388,000 Americans killed by the COVID vaccines. Dec 14 2021. Steve Kirsch's Newsletter.



Steve Kirsch's newsletter

### Latest VAERS estimate: 388,000 Americans killed by the COVID vaccines

My estimate of the VAERS under-reporting factor (URF) at 41 was based on anaphylaxis rates reported in the Blumenthal paper published in JAMA. I have argued that the anaphylaxis rate is an appropriate number to use to (under) estimate deaths because I believed that deaths would be less reported than anaphylaxis to VAERS for two reasons: 1) usually lacks...

[Read more](#)

10 months ago · 318 likes · 428 comments · Steve Kirsch

[40] Public Health Scotland. Public Health Scotland COVID-19 & Winter Statistical Report. Jan 17 2022. [https://publichealthscotland.scot/media/11802/22-01-19-covid19-winter\\_publication\\_report\\_revised.pdf](https://publichealthscotland.scot/media/11802/22-01-19-covid19-winter_publication_report_revised.pdf)

[41] J Murphy, C Huber. Student athletes performs worse than controls following COVID vaccines. Jan 16 2022. PDMJ.  
[https://pdmj.org/papers/Student\\_athletes\\_perform\\_worse\\_than\\_controls\\_following\\_COVID\\_vaccines](https://pdmj.org/papers/Student_athletes_perform_worse_than_controls_following_COVID_vaccines)

[42] Real Science. 942 athlete cardiac arrests, serious issues, 621 dead, after COVID shot. <https://goodsciencing.com/covid/athletes-suffer-cardiac-arrest-die-after-covid-shot/>

[43] S Zhang, Y Xu, et al. Cationic compounds used in lipoplexes and polyplexes for gene delivery. Nov 24 2004. J Controlled Release.

<https://www.sciencedirect.com/science/article/abs/pii/S0168365904004006?via%3Dihub>

[44] S Ndeupen, Z Q in, et al. The mRNA-LNP platform's lipid nanoparticle component used in preclinical vaccine studies is highly inflammatory. Nov 19 2021. CellPress. <https://www.cell.com/action/showPdf?pii=S2589-0042%2821%2901450-4>

[45] C Tseng, E Sbrana. Immunization with SARS coronavirus vaccines leads to pulmonary immunopathology on challenge with the SARS virus. Apr 20 2012. PLoS One. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3335060/>

[46] H Weingarti, M Czub, et al. Immunization with modified vaccinia virus Ankara-based recombinant vaccine against severe acute respiratory syndrome is associated with enhanced hepatitis in ferrets. Nov 2004. J Virol. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC525089/>

## 19 Comments



Write a comment...



**hay** Apr 22 Liked by ColleenHuberNMD

Colleen you're amazing. I was just terminated for not being vaccinated from a college in Tempe, AZ. I wasted 20,000\$ on a degree I am unable to finish due to not being able to extern anywhere because of my beliefs. Do you know any lawyers who could help me possibly get my money back?

12 Reply Collapse

**5 replies by ColleenHuberNMD and others**



**YC** Apr 22 Liked by ColleenHuberNMD

Above footnote 41, in the discussion of vaccinated and unvaccinated high school students,

6 Reply Collapse

**1 reply by ColleenHuberNMD**

17 more comments...

---

---

© 2022 ColleenHuberNMD · [Privacy](#) · [Terms](#) · [Collection notice](#)  
[Substack](#) is the home for great writing