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Metacritique of Influential Studies Purporting COVID-19 Vaccine Successes: Part 1 - Watson et al

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Abstract

Despite a dearth of articles critically examining major COVID-19 vaccine studies, this review evaluates the widely cited Watson et al, which claimed that over 14 million lives were saved globally by COVID-19 vaccines. Several issues were identified that generally invalidate its conclusions and raise doubts about the actual success of the global vaccination program. These include the use of inaccurate estimates of effectiveness and safety due to inadequate counting windows; lack of recognition of waning effectiveness and eventual negative effectiveness; failure to account for confounding variables; exaggerated infection and case fatality rates; insufficient consideration of vaccine-related risks; and possible financial or political conflicts of interest. Multiple lines of evidence are highlighted that suggest the risks of COVID-19 vaccines may outweigh the benefits, particularly in young and healthy populations.

Keywords: COVID-19, COVID-19 vaccines, counting windows, risk-benefit analysis, negative effectiveness

Introduction

Several influential studies have claimed that COVID-19 vaccines saved millions of lives worldwide. Despite their influence on public health policies and perception, these studies have received limited critical scrutiny in the peer-reviewed literature.

This three-part metacritique addresses that gap by closely analyzing six prominent and widely cited studies on COVID-19 vaccine effectiveness. Each part highlights methodological flaws, unexamined assumptions, overlooked risks, and potential conflicts of interest.

This effort builds on my prior research, which found that inadequate counting windows led to exaggerated vaccine efficacy/effectiveness and safety estimates in COVID-19 vaccine clinical trials and observational studies. In response to concerns raised by American and Australian legislators, including US Senator Ron Johnson, I aim to provide a rigorous, evidence-based evaluation of vaccine outcomes.

Part 1 focuses exclusively on Watson et al, the most high-profile and globally cited study, which claimed that over 14 million lives were saved by COVID-19 vaccines. As will be shown, serious methodological concerns challenge the validity of that conclusion.

Watson et al – International

Undoubtedly the most high-profile and globally influential study in this domain, Watson et al claimed that COVID-19 vaccines "prevented 14.4 million . . . deaths from COVID-19 in 185 countries and

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territories between Dec 8, 2020, and Dec 8, 2021," and nearly 20 million "excess deaths as an estimate of the true extent of the pandemic." (1) Watson et al revolves around a model which, by definition, is not truly representative of reality. As Alfred Korzybski quipped, "The map is not the territory." Like a well-reasoned logical argument that relies on sound premises, a model is only as valid as the data and assumptions it is built upon. As with the other studies reviewed in this series, Watson et al is centered on a model derived from numerous estimates, many of which have been heavily questioned in the scientific literature.

One major problem appears in the appendix, concerning the assumed effectiveness of the vaccines. First, the effectiveness estimates used for the Pfizer, Moderna, Johnson & Johnson, and AstraZeneca vaccines do not come from "gold-standard" randomized controlled trials. As revealed in an unofficial series of four articles on the clinical trials and later observational studies—authored by researchers such as *BMJ* senior editor Peter Doshi and myself (henceforth, JECP4)—the effectiveness estimates from numerous observational studies and the mRNA COVID-19 vaccine clinical trials are likely exaggerated. This is largely due to case-counting windows in the vaccinated individuals beginning only one or more weeks after the second dose. (2-5) Such methodology can make a completely ineffective vaccine appear 48% effective, or even around 65% effective, if cases in the "partially vaccinated" are ascribed to the "unvaccinated." In fact, even a negatively effective vaccine can, in this way, be made to appear moderately effective.

Watson et al should endeavor to use the most reliable estimates possible, ideally those derived from clinical trials, and they should provide full transparency regarding the handling of data for individuals who were "partially vaccinated." JECP4 further reveals that similar case-counting window issues likely contributed to inflated estimates of vaccine safety. A rational explanation has yet to be offered as to why COVID-19 infections (including hospitalizations and deaths), as well as other adverse events occurring in partially vaccinated individuals, are either excluded from the data set or, more troubling, attributed to the unvaccinated group. Partial vaccination is not an optional status; it is an essential step on the path to full vaccination.

Curiously, there is little discussion of how the authors determined the effectiveness of the vaccines in preventing death, which is the ultimate measure of success and directly relevant to their conclusions. Had they utilized the original clinical trials of the mRNA COVID-19 vaccines, along with recently published reanalyses, they would have noted no statistically significant decrease in COVID-19 deaths among the vaccinated groups, a statistically significant increase in serious adverse events of special interest, (6) and a non-statistically significant increase in total deaths. (7) It is also worth noting that the trials involved arguably the deadliest strains of the virus; thus, subsequent researchers should expect even fewer benefits from the vaccines.

Another issue is the implicit assumption of static vaccine effectiveness estimates by Watson et al. Highlighting the importance of verifying not only published articles but also their supplementary material, the authors disclose in the appendix (which exceeds 200 pages) that, when addressing the Delta variant's immune escape in their model, they "assume a constant vaccine efficacy of 60% against infection and 90% against disease," to "simplify the model parameterisation." While simplicity is often appreciated, one point of agreement among both proponents and critics of COVID-19 vaccination is that its effectiveness is short-lived. Numerous articles and datasets indicate that vaccine effectiveness—whether for infections or death—declines rapidly, sometimes reaching 0% within months, and may even become negative. (8) If this were not the case, there would be no need for frequent and continuous booster shots. Evidence for so-called negative effectiveness—where vaccination is associated with increased rates of infection and even death—continues to mount, with no compelling rebuttal yet published in the literature. (9)

There is also evidence that this surprising phenomenon is dose-dependent. For example, Shrestha et al found that "The risk of COVID-19 also increased with time since the most recent prior COVID-19 episode and with the number of vaccine doses previously received." Their Figure 2 is particularly revealing, showing an increase in COVID-19 infections associated with each additional dose. (10) A multitude of potential explanations may account for this pattern—for instance, the unvaccinated may have benefited from a superior natural immunity; the vaccine may temporarily render recipients immunocompromised (especially relevant given case-counting window issues); or, due to original antigenic sin, a vaccine that was initially effective may become negatively effective against later variants. Perhaps one reason vaccine effectiveness declines rapidly—or even becomes negative—is that the vaccines were not very effective to begin with, as suggested in JECP4, and the passage of time has merely exposed the flaws masked by inadequate

counting windows. No such critical consideration is found in Watson et al, which instead relies on assumptions and estimates that, in retrospect, appear overly optimistic.

Apart from the assumed effectiveness of the vaccines, the most important assumptions in the model relate to infection fatality rates (IFRs) and case fatality rates (CFRs), though the latter is not mentioned in Watson et al, despite CFR estimates being less speculative. The higher the assumed IFRs of COVID-19, the greater the perceived benefit of the vaccines. The claim that the vaccines saved more than 14 million lives in one year—and that many more would have been saved had everyone been vaccinated—would initially seem fanciful, given that only around 3 million people died from COVID-19 during the first (and vaccine-free) year of the pandemic, which involved the deadliest strains. One study even suggests that excess deaths were lower than this, even into 2021, despite Watson et al assuming that they would be higher. (11) One could speculate that the lockdowns kept these figures lower; however, to say nothing of Sweden, a Johns Hopkins meta-analysis concluded that "lockdowns in the spring of 2020 had little to no effect on COVID-19 mortality." (12)

Back-of-the-envelope calculations would likely have many scratching their heads. Assuming every person of the world's approximately 8 billion people became infected once, an IFR of 0.1% would result in only 8 million deaths. This illustrates the importance of knowing the IFR for such analyses. It already seems that Watson et al assumed COVID-19 was far deadlier than currently understood—a point that will become clearer when we discuss the background of the research team's leader. Watson et al are not particularly transparent in disclosing their IFRs, even in the supplementary material, instead deferring to Brazeau et al. The IFR estimates in Brazeau et al are 0.23% "in a typical low-income country," which covers most of the world, and 1.15% "in a typical high-income country." (13) In retrospect—this report is from 2020—this higher figure would appear absurd to many, especially since this is an IFR and not a CFR. Brazeau et al also acknowledge that, at the time, estimates of COVID-19 IFR "ranged from <0.01% to 2.3%, with a review combining estimates across studies reporting an overall estimate of 0.68%."

Highly accomplished epidemiologist John Ioannidis confirmed the world's worst-kept secret, reporting IFR estimates "among non-elderly people in the absence of vaccination or prior infection" as being almost zero in the young, with even the vast majority of 60-year-olds surviving the deadly disease: "The IFRs had a median of 0.034% (interquartile range [IQR] 0.013–0.056%) for the 0–59 years old population, and 0.095% (IQR 0.036–0.119%) for the 0–69 years old. The median IFR was 0.0003% at 0–19 years, 0.002% at 20–29 years, 0.011% at 30–39 years, 0.035% at 40–49 years, 0.123% at 50–59 years, and 0.506% at 60–69 years." (14) Additionally, the "with COVID/from COVID" issue—meaning that COVID-19 deaths may be inflated as not all such deaths involve COVID-19 as the primary cause (and some deaths attributed to COVID-19 may actually be caused by the vaccines)—raises further concerns. Remarkably, the Australian government reported that the "median age for those who died from COVID-19 was 85.5 years," (15) while life expectancy is "81.2 years for males and 85.3 years for females." (16) It appears that the dangers of the pandemic were somewhat exaggerated. In fact, it seems that if you want to live a little longer, you ought to suffer from COVID-19.

Watson et al unfortunately do not explain why they used the IFR values they did, nor do they specify what those values were. It would be useful to know whether Watson et al applied the 1.15% figure to the entire global population or only to the high-income countries, which represent a small minority of the world's population. It is difficult to believe that this study passed peer review, was published, and remains published, given that such critical information was left undisclosed. The IFR values used were presumably high, however, and had the researchers opted for a lower IFR, their conclusions would likely have been much less compelling.

Additionally, given that Brazeau et al was released in October 2020, its IFR estimates are more relevant to the original strain, while much of Watson et al focuses on the Delta variant. Their model assumes higher hospitalizations due to the Delta variant, which they presumably associated with increased mortality. However, whether Delta was more or less deadly remains an open question. Public Health England reported a CFR of just 0.2%, (17) and a Japanese study suggested that Delta was considerably less deadly than the original strain (though more deadly than the later Omicron variant), particularly among the elderly, who accounted for the highest number of deaths. (18)

Furthermore, a proper risk-benefit analysis is not possible without factoring in the deaths and injuries caused by the vaccines, which are still not fully understood due to the lack of long-term data. The possibility of an excess of risks, including deaths, was noted in the reanalyses of the clinical trials by

Fraiman et al and Benn et al. This analysis does not seriously address the possibility of fraudulent activity in the Pfizer trial, as highlighted in *The BMJ*. (19) A recent study by Raethke et al also found that the rate of serious adverse effects could be as high as 1 in 400. (20) This seems to be an overly steep price to pay when contrasted with UK government estimates of the number needed to vaccinate to prevent a severe COVID-19 hospitalization in young and healthy individuals—figures that could be in the hundreds of thousands. (21)

There are yet more problems. With some high-profile article retractions recently, partly due to concerns about unscholarly sources, it is problematic that some key assumptions in Watson et al come from a nonacademic magazine: "Estimates of excess mortality are sourced from *The Economist* excess mortality model." Furthermore, they admit to assuming excess deaths, which they take as indicative of the true damage caused by COVID-19, based on this model, when the actual evidence does not report them: "For countries and time periods for which excess mortality had not been reported, we used model-based estimates of all-cause excess mortality, first produced by *The Economist*." It's easy to argue for your position with made-up statistics; after all, 69% of people know that.

They did at least admit to the "wide uncertainty" in their analysis and acknowledged that they "also presented the deaths averted as estimated by fitting to official reported COVID-19 deaths from the Johns Hopkins University COVID-19 Data Repository." This suggests that they do not actually know how many people died from COVID-19, so they take a guess based on excess mortality data. When those data are nonexistent, they make further guesses based on the available COVID-19 death statistics. In my previous academic field—analytic philosophy—this is called "reasoning in a circle." The authors also admitted to "the difficulty in predicting how governments and populations would have responded, and how viral evolution would have progressed if vaccines had not been available," further revealing how much of this study is based on guesswork.

This is not criticism for criticism's sake. One thing the authors are open about is the astounding amount of uncertainty that went into their project: "More broadly, our estimates should be considered in light of the considerable uncertainty inherent in estimating vaccine impact. Uncertainty in the true death toll of the pandemic, the circulating variants of concern and their immunological phenotypes, and the vaccines themselves administered in many countries vastly complicate efforts to derive accurate estimates of the impact of COVID-19 vaccines." They even acknowledge the possibility of "overestimated excess mortality" and "lower vaccine effectiveness than assumed in our framework."

Continuing with all-cause excess mortality, it is curious that the authors do not mention lockdowns even once in their 200-plus pages—nor do they address their potential health effects, including those arising from delayed diagnoses and the financial consequences of millions being thrust into poverty. They also fail to entertain the possibility that some, however small, proportion of excess deaths could be attributable to the vaccines. It is now widely known, for example, that the vaccines have been implicated in several cardiovascular deaths. Additionally, it is possible that some portion of the apparent lives saved was due to the various nonpharmaceutical interventions rather than the vaccines. While all of this is arguable, it remains unaddressed in Watson et al.

Relating to the problematic assumptions about static effectiveness, the authors assume that all vaccinated individuals have a 50% reduction in infectiousness for breakthrough infections. Their only cited support is Eyre et al. The study notes: "The reductions in transmission of the delta variant declined over time after the second vaccination, reaching levels that were similar to those in unvaccinated persons by 12 weeks in index patients who had received ChAdOx1 nCoV-19 and attenuating substantially in those who had received BNT162b2. Protection in contacts also declined in the 3-month period after the second vaccination." (22) Despite the assumptions of Watson et al, abundant evidence—including papers they cite themselves—clearly shows that the effectiveness of COVID-19 vaccines rapidly declines.

Intriguingly, Watson et al's charts for the United States could have prompted reconsideration of their assumptions, as they reveal that deaths were already declining before widespread vaccination (January–February 2021), only to rise again after significant vaccine uptake (August 2021). Their own data demonstrate similar patterns for Canada and the United Kingdom, whereas Australia's deaths remained consistently low throughout late 2020 and 2021 until spiking at a time of high uptake. Given the data available to and used by Watson et al, the authors should have been more cautious in making such strong claims. Indeed, the study addresses only lives reportedly saved by the vaccines, neglecting potential vaccine-related deaths. Beyond Watson et al's own charts, numerous recent studies have indi-

cated that COVID-19 vaccines may not be as safe as initially claimed. Many articles have highlighted the puzzling rise in excess mortality throughout the Western world, with some openly questioning whether COVID-19 vaccines play a role. (23) I have published an even stronger indication of association, demonstrating a positive correlation between vaccination rates, total vaccine doses by European country, and excess deaths. (24) Another is in progress, which rules out alternatives to mass vaccination as the primary drivers of excess mortality in certain regions and time periods.

The authors also stated: "We excluded China from our estimates because of its unique position as the origin of the detected epidemic and its large influence on estimates of deaths averted stemming from its population size." Large influence indeed. China accounts for approximately one-fifth of the world's population yet reports remarkably few COVID-19 deaths, making the resulting data appear outright manipulated. (25) Earlier, we saw that when evidence was unavailable, Watson et al were content to hazard a guess; now we see that some existing evidence, perhaps because it is not conducive to their aims, has simply been ignored.

Finally, there are also several concerns regarding financial conflicts of interest. Watson et al do not merely make grand claims about the benefits of the COVID-19 vaccines; they actively promote them: "Vaccine distribution and delivery infrastructure also needs to be scaled up worldwide." This advocacy is problematic given their affiliations and funding—and it should be noted that the following examples are not exhaustive. The last listed author, typically the senior or supervisory researcher, has worked for pharmaceutical companies, including prominent COVID-19 vaccine manufacturer Moderna. Several other authors have worked for the World Health Organization (WHO). More directly, the study was financially supported by the WHO and Gavi, both of which receive substantial donations from the Bill & Melinda Gates Foundation (BMGF), (26,27) and the latter was itself a funder. BMGF had heavily invested in COVID-19 vaccines, with a significant investment in Pfizer COVID-19 vaccine developer BioNTech fortuitously made just before the pandemic was declared. (28)

Additionally, all authors are affiliated with the MRC Centre for Global Infectious Disease Analysis at Imperial College London, which was co-founded (29) and led at the time by epidemiologist Neil Ferguson. (30) The MRC Centre, previously known as the MRC Centre for Outbreak Analysis and Modelling, has disclosed funding from the pharmaceutical company Gilead Sciences, and several of its researchers have direct ties to pharmaceutical companies. It has also received funding from the UK government—which has actively promoted, approved, and even mandated COVID-19 vaccines (31)—as well as from the WHO, BMGF, and the Wellcome Trust. (32) The Wellcome Trust has faced criticism for investing "in companies that contribute to the same problems the philanthropy wants to solve." (33) It has financial investments in various pharmaceutical companies, including COVID-19 vaccine manufacturer Johnson & Johnson, (34) has provided funding for AstraZeneca's COVID-19 vaccine, (35) and has announced intentions to further invest in COVID-19 vaccines, with Pfizer being a potential recipient. (36) Furthermore, Jeremy Farrar, who directed the Wellcome Trust at that time, served as part of the Scientific Advisory Group for Emergencies (SAGE), a group of scientists advising the UK government on COVID-19, (37) before becoming chief scientist at the WHO. (38) Imperial College London has received funding from the UK government, the WHO, BMGF, and the Wellcome Trust. (39) Additionally, Imperial College has partnered with AstraZeneca, a developer of COVID-19 vaccines. (40)

Moving on to Neil Ferguson—this is indeed the same Neil Ferguson whose history includes notably inaccurate predictions about disease mortality (41) and whose dramatically overstated doomsday predictions about COVID-19 mortality (as a straightforward comparison between his team's forecasts and actual outcomes clearly demonstrates) (42) significantly influenced government policies leading to unprecedented global lockdowns. (43) These actions earned him the nickname "Professor Lockdown," a reputation Ferguson himself undermined when he was caught violating the very lockdown measures he had advocated by having an affair with a married woman during the restrictions—an incident that resulted in his resignation from SAGE. (44) Notably, one explicitly stated justification for implementing nonpharmaceutical interventions such as lockdowns, school closures, and social distancing was to maintain control measures "until a vaccine becomes available." (45-48) Given Ferguson's prominent role in shaping global pandemic policies—and his direct leadership of the research team that conveniently concluded vaccines were extraordinarily effective—his absence from the author list or acknowledgments section of Watson et al raises legitimate questions. Similar concerns regarding conflicts of interest or questionable connections appear across other influential studies dis-

cussed in this series. Indeed, the very individuals instrumental in crafting pandemic responses frequently reappear—either credited or uncredited—in research affirming the success of these interventions, as if no alternative conclusions could be reasonably considered. These are not impartial observers or disinterested scientists. Rather, these are individuals and organizations financially linked to vaccine manufacturers and their major investors, whose research findings and policy recommendations conveniently enhance pharmaceutical profits. Such interwoven interests raise serious ethical questions and suggest actions that could one day be critically viewed as negligent or even criminal.

Critics might argue that these financial and institutional connections are tenuous, merely reflecting the increasingly globalized and interconnected nature of our world. Yet such an argument supports greater skepticism rather than diminished scrutiny. This intricate web of funding mirrors the perceived diversity of news organizations and brands, which, in reality, are owned by only a handful of multinational corporations. Indeed, many of these large companies—including mainstream media and pharmaceutical firms—can be traced, through online searches, back to a handful of billionaire owners. (49) When a small group controls not only the major COVID-19 vaccine manufacturers but also the media promoting their products—and funds both the scientists endorsing these vaccines and, through regulatory bodies, the governments approving (50) and mandating them—skepticism is warranted. Further, the pharmaceutical industry funds and arguably influences major medical journals that publish favorable studies by these same scientists, (51-56) as well as the peer reviewers for these journals (57)—just as it sponsors clinical trials of its own products, which predictably yield results more favorable to its interests compared with independent studies. (58)

In summary, questionable science funded by the COVID-19 vaccine manufacturers is published in medical journals that receive funding from the same pharmaceutical interests. Such research influences government policies, which then necessitate, approve (via regulators funded by pharmaceutical interests), encourage, or even mandate COVID-19 vaccines. This arrangement substantially increases the profits of vaccine developers and their investors, including so-called charitable organizations. The media, often owned by the same entities controlling pharmaceutical corporations, further promote these developments.

At the start of the pandemic, here in Australia, we were inundated with advertisements assuring us that "we're all in this together." However, given these revelations, this sentiment no longer appears genuine. Rather, in this era of the World Economic Forum's "stakeholder capitalism," it seems that "they"—government entities, industry leaders, immensely wealthy charitable foundations, and the scientists and academics funded by these groups—are indeed "in this together." As the great philosopher George Carlin remarked, "It's a big club, and you ain't in it." (59)

Due to the numerous methodological flaws, questionable assumptions, and conflicts of interest outlined here, the conclusion of Watson et al—that COVID-19 vaccines saved "tens of millions of lives globally" in one year—cannot be considered valid. To accurately assess the number of lives truly saved by these vaccines, Watson et al and others should repeat their analysis using more rigorous and transparent methods: incorporating conservative estimates of vaccine effectiveness, given recent concerns about counting-window methodologies; accounting for rapidly waning and potentially negative effectiveness; using accurate, clearly disclosed IFRs and CFRs; giving preference to available evidence over speculative estimates; and ideally, conducting the research independently, without financial ties to vaccine manufacturers, their shareholders, or organizations that promote and mandate these vaccines.

Conclusion

Watson et al has been central in shaping the dominant narrative that COVID-19 vaccines have saved tens of millions of lives worldwide. However, a closer examination reveals a web of flawed methodological assumptions, unsupported estimates, and under-discussed risks—factors that substantially undermine this conclusion.

In Part 2, I turn to Kitano et al, a major US-based study that similarly claims significant net benefits of vaccination. As will become clear, many of the same methodological and ethical concerns apply—alongside additional issues specific to the American context. Finally, Part 3 will explore these patterns across several other prominent studies concerning Europe and Oceania, ultimately highlighting consistent weaknesses within the literature supporting widespread COVID-19 vaccination.

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