

The Discrepancy Between the Number of Saved Lives with COVID-19 Vaccination and Statistics of Our World Data

Amrit Srecko Sorli*

Department of Medical Sciences, Bijective Physics Institute, Idrija, Slovenia

ABSTRACT

Our World Data reports that in 2021, 6.08 million more people died than in 2020. Several articles claim that COVID-19 vaccination in 2021 saved 14 million lives. Their proposition that COVID-19 vaccination saved lives was not proved by statistical data. These articles' calculations evaluate how many people would die without the vaccination. But it was never proved that vaccination saved lives. Statistical data confirm that the mortality of the vaccinated part of the population in 2021 was 14.5% higher than the mortality of the unvaccinated part of the population. The idea of saving lives with COVID-19 vaccination contradicts statistical data.

Keywords: COVID-19 pandemics; Global mortality; Research methodology; Our World Data; Health public

INTRODUCTION

In a recently published article in THE LANCET-Respiratory Medicine, it is stated that "A study of the global impact of the first year of vaccination found that vaccination had decreased mortality by 63% globally". The article is titled "Estimated number of lives directly saved by COVID-19 vaccination programmes in the WHO European Region from December, 2020, to March, 2023: A retrospective surveillance study" [1]. According to Our World Data, 57.94 million people died in the world in 2019. In 2020,

when COVID-19 began to spread, 63.17 million people died. In 2021, when COVID-19 vaccinations started around the world, 69.25 million people died that year, see Table 1 below [2]:

The average number of deaths in the years 2015-2019 is 56.87 million people per year. In 2020, 6.30 million more people died due to the COVID-19 pandemic compared to the average mortality in 2015-2019. These 6.30 million represent "increased global mortality" due to the COVID-19 pandemic and COVID-19 virus.

Table 1: Number of deaths on the planet in the covid crisis.

Year	Deaths in millions	Average and excess mortality in millions
2015	55.89	56.87
2016	56.20	56.87
2017	56.97	56.87
2018	57.35	56.87
2019	57.94	56.87
2020	63.17	56.87+6.30
2021	69.25	56.87+12.28

Correspondence to: Amrit Srecko Sorli, Department of Medical Sciences, Bijective Physics Institute, Idrija, Slovenia, E-mail: sorli.bijective.physics@gmail.com

Received: 04-Feb-2025, Manuscript No. JCTR-25-36958; **Editor assigned:** 06-Feb-2025, PreQC No. JCTR-25-36958 (PQ); **Reviewed:** 20-Feb-2025, QC No. JCTR-25-36958; **Revised:** 28-Feb-2025, Manuscript No. JCTR-25-36958 (R); **Published:** 07-Mar-2025, DOI: 10.35248/2167-0870.25.S32.001

Citation: Sorli AS (2025). The Discrepancy Between the Number of Saved Lives with COVID-19 Vaccination and Statistics of Our World Data. J Clin Trials. S32:001.

Copyright: © 2025 Sorli AS. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

METHODOLOGY

Graphical analysis of global mortality based on Our World Data

In 2021, 6.08 million more people died than in 2020. In 2020 and 2021 there was a COVID-19 pandemic; in 2020 there was no COVID-19 vaccination, and in 2021 there was a COVID-19 vaccination. The living circumstances on the planet were similar in 2020 and 2021. In 2020 and in 2021, we had COVID-19 pandemics. The main difference in living circumstances of the global population was COVID-19 vaccination in 2021. Our World Data confirms that COVID-19 vaccination increased the "global mortality" in 2020, which was 6.30 million, by an additional 6.08 million in 2021, which means 96.5%, see Figure 1 below. The claim that vaccination reduced global mortality in 2020 by 63% in 2021 is a huge error of 159.5%.

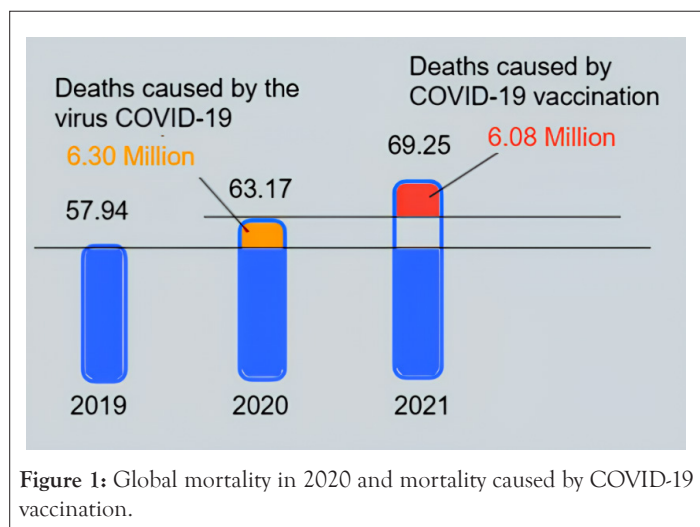


Figure 1: Global mortality in 2020 and mortality caused by COVID-19 vaccination.

RESULTS AND DISCUSSION

Exact mathematical model to evaluate results of COVID-19 vaccination

The main data needed for the evaluation of COVID-19 vaccination are the mortality rate of the vaccinated part of the population and the mortality rate of the unvaccinated part of the population. If vaccination was successful, the mortality rate of the vaccinated population should be lower than the mortality rate of the unvaccinated population. To exclude the statistical Simpson paradox, the population should be divided into five age groups [3]. We have done this calculation based on England data, and we got the result that the mortality of the vaccinated part of the population is higher by 14.5% than the unvaccinated part of the population.

Let's take that by the end of 2021 approximately 40% of the human population was vaccinated. This means 40% of the 69.25 million persons, which is 27.70 million, who died in 2021 were vaccinated. If we take that 27.70 million is 100%, then 6.08 million is 22%, which is close to 14.5%. In developed countries, all data are available, and exact calculations of the mortality rate of vaccinated and unvaccinated parts of the population can be done. Medical institutions worldwide are refusing to apply this methodology, which is worrying.

None of the articles that claim that COVID-19 vaccines saved lives

used an appropriate method comparing the mortality rate of the vaccinated population with the mortality rate of the unvaccinated population. They all start with the unproven hypothesis that vaccines are saving lives. They build their models on the preposition of how many more people would die if there were no vaccination. Such an example is the article in Lancet that claims that vaccination in 2021 saved around 14 million lives [4]. If these were true then in 2021, 14 million fewer would die than in 2020. Our World Data confirms in 2021 6.08 million more people died than in 2020. The article claims that if there were no vaccinations in 2021, 14 million more would die. This is highly speculative because it has never been proven that COVID-19 vaccines save lives. It was demonstrated that they increased the mortality rate in 2021 by 14.5% [5]. The article in the Lancet was published in September 2022. At that time, all statistical data in developed countries were available to calculate the mortality rate of vaccinated and unvaccinated parts of the population in 2021 and prove that COVID-19 vaccines save lives. This was not done. The authors developed a theoretical study and mathematical modeling unrelated to existing statistical data and have no real scientific validity.

Negative causal correlation between the intensity of vaccination and mortality rate

If COVID-19 vaccines would save lives, the intensity of vaccination should diminish the mortality rate. More people were protected, and fewer people should die. On Our World data, we have a daily number of administered COVID-19 vaccines. And we have daily numbers of mortality. These numbers are represented with graphs. When we compare these graphs, we see for 37 countries the expected positive causal correlation is negative [3,5]. Below are graphs of Slovenia (Figure 2).

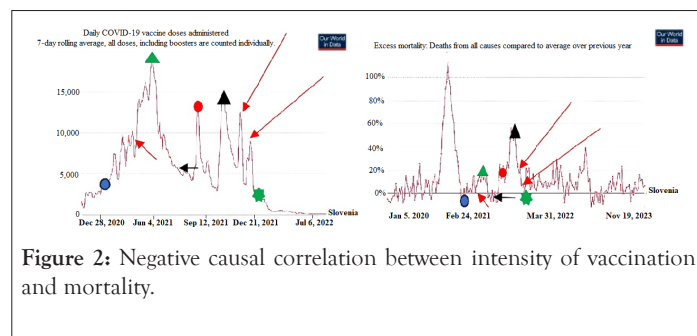


Figure 2: Negative causal correlation between intensity of vaccination and mortality.

Methodological errors of models evaluating COVID-19 vaccination efficiency

All models that try to evaluate the efficiency of COVID-19 vaccination start with the preposition that vaccines saved lives (preposition A) [4,6,7,8,9]. None of them has compared the mortality rate of the vaccinated part of the population with the rate of mortality of the unvaccinated part of the population, which is the only valid scientific method to prove the efficiency of COVID-19 vaccination. Their starting position (A) is theoretical and is not based on statistical data. From the methodological point of view, this is an inadmissible and irreparable error. Our research group did calculations based on statistical data, and the mortality of the vaccinated part of the population in 2021 was bigger by 14.5% compared to the mortality of the unvaccinated part of the population [5]. Based on this unproved preposition that COVID-19 vaccines saved lives (A), authors of reference claim that in 2021, around the globe, 14 million lives were saved [4].

The second methodological error of this study is that it speculates how many more people would die if there were no vaccination [4]. This is a preposition (B). Their speculative calculations proving preposition (B) have no scientific validity because preposition (A) in their research was not proved.

A not proved \rightarrow B has no scientific validity

Calculations of how many more people would die if there were no COVID-19 vaccinations on the hypothetical basis that COVID-19 vaccines are saving lives have no scientific validity because statistical data confirm that the vaccinated part of the population in 2021 had a bigger mortality rate than the unvaccinated part of the population.

The number of deaths in 2021 is 69.25 million. The claim that 14 million lives were saved in 2021 means that if there had not been vaccination, 83.25 million people would have died. This statement makes no sense because it has not been proven that COVID-19 vaccines have saved lives; the opposite was proven.

Set theory and fictitious saved lives with COVID-19 vaccination

Applying set theory, the entire human population of the year 2021 is denoted as set HP. This set has three subsets: born people in 2021 (B), people who died in 2021 (D), and people whose lives were saved in 2021 by COVID-19 vaccination (SL). This model is used in all articles that evaluate how many lives were saved with the vaccination. According to Our World Data, 133.45 million people were born in 2021. Subset B has 133.45 elements. According to Our World Data, 69.25 million people died in 2021. Subset D has 69.25 million elements. According to references [1,4], 14 million lives were saved with COVID-19 vaccination. Subset SL has 14 million elements. If these 14 million elements were real, then in 2021 the official statistical data should be that in the year 2021, 55.25 million people died. This is not the case in physical reality, which means that set SL is nonexistent in physical reality. Set HP used in articles claiming that vaccination saved lives has no bijective correspondence with physical reality because in a physical reality subset SL does not exist; see Figure 3 below:

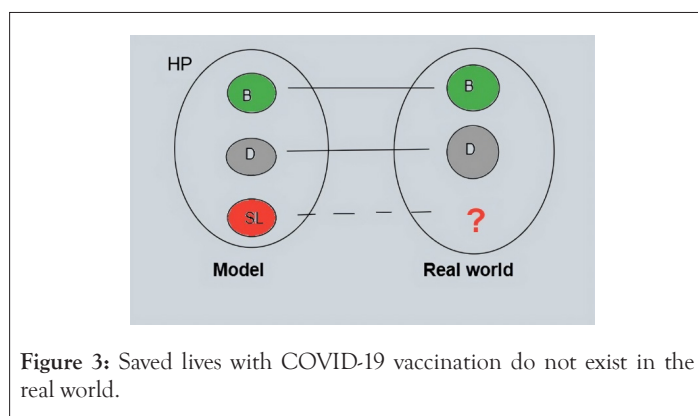


Figure 3: Saved lives with COVID-19 vaccination do not exist in the real world.

In 2021, 6.08 million more people died than in 2020. Claiming that in the year 2021, 14 million people's lives were saved contradicts statistical data. Subset saved lives (SL) is a fictitious set that has no physical reality. People whose lives were saved by COVID-19 vaccination in 2021 were never born. They only exist in the theoretical models that predict these lives were saved. These models have no confirmation in statistical data and are an irreparable methodological error.

Peer review of public health does not consider statistical data

The article in Cureus was retracted despite citing articles about clinical research that confirm the danger of COVID-19 vaccines: "Another relevant aspect of this unfolding tragedy is the untold story of reduced life expectancy. In many developed countries, the main causes of reduced life expectancy (smoking, obesity, opioid overdose, homicides, suicides, and infant mortality) are the primary causes of premature death on a population scale. Nevertheless, it is also clear that several risks associated with COVID-19 vaccinations may translate into premature death in the long term. Among the poor, untreated bacterial pneumonia is a major cause of reduced life expectancy and may be further exacerbated by COVID-19 vaccination. Strokes and myocarditis associated with COVID-19 vaccinations may cause premature death years after the initial event. A longitudinal study of stroke patients found that fewer than 28 days after a stroke, the risk for death was 28%; this increased to 41% at one year and 60% at five years. Undiagnosed heart and clotting problems can persist asymptotically for years. Multiple autopsy studies provide definitive evidence of serious post-injection damage to the heart, including sudden cardiac arrest and sudden death, all associated with the COVID-19 mRNA vaccines" [10].

References [1, 4, 6, 7, 8, 9] claim that COVID-19 vaccines saved lives. No statistical data confirms these claims; this means these articles have no scientific validity. These articles confirm the peer review of public health medicine does not consider statistical data. The article in Cureus should not be retracted; it is written on scientific facts of clinical studies and supported by statistical data. Our World Data confirms that in 2020 the cause of excess mortality was the COVID-19 virus, and in 2021 the causes of excess mortality were two: The COVID-19 virus plus COVID-12 vaccines, see Figure 1.

CONCLUSION

Statistical data are the indisputable scientific facts on which the science of public health is based. Theoretical models of how many lives were saved with COVID-19 vaccination without statistical support have no scientific validity and represent a methodological fiasco of public health science. A rigorous and transparent approach to public health science is necessary to ensure that policies and medical interventions are guided by objective data rather than theoretical assumptions. The failure to compare vaccinated and unvaccinated mortality rates systematically, as well as the omission of age-stratified statistical analyses, further undermines the credibility of claims that COVID-19 vaccines significantly reduced global mortality.

REFERENCES

1. Meslé MM, Brown J, Mook P, Katz MA, Hagan J, Pastore R, et al. Estimated number of lives directly saved by COVID-19 vaccination programmes in the WHO European Region from December, 2020, to March, 2023: A retrospective surveillance study. *Lancet Respir Med.* 2024;12(9):714-727.
2. Our World Data. 2025.
3. Makovec T, Šorli AS, Gorjup R, Krevel Z, Piberl S. Analysis of COVID-19 vaccination effectiveness. *J Vaccines Vaccin.* 2020;14(5):530.
4. Watson OJ, Barnsley G, Toor J, Hogan AB, Winskill P, Ghani AC. Global impact of the first year of COVID-19 vaccination: A

- mathematical modelling study. *Lancet Infect Dis.* 2022;22(9):1293-1302.
5. Šorli S, Makovec T, Kregel Z, Gorjup R. Forgotten “Primum Non Nocere” and increased mortality after COVID-19 vaccination. *Qual Prim Care.* 2023;31(6):56-64.
 6. World Health Organization. 14.9 million excess deaths associated with the COVID-19 pandemic in 2020 and 2021. 2022.
 7. Kislalya I, Machado A, Magalhães S, Rodrigues AP, Franco R, Leite PP, et al. COVID-19 mRNA vaccine effectiveness (second and first booster dose) against hospitalisation and death during Omicron BA.5 circulation: Cohort study based on electronic health records, Portugal, May to July 2022. *Euro Surveill.* 2022;27(37):2200697.
 8. Wu N, Joyal-Desmarais K, Ribeiro PA, Vieira AM, Stojanovic J, Sanuade C, et al. Long-term effectiveness of COVID-19 vaccines against infections, hospitalisations, and mortality in adults: findings from a rapid living systematic evidence synthesis and meta-analysis up to December, 2022. *Lancet Respir Med.* 2023;11(5):439-452.
 9. Savinkina A, Bilinski A, Fitzpatrick M, Paltiel AD, Rizvi Z, Salomon J, et al. Estimating deaths averted and cost per life saved by scaling up mRNA COVID-19 vaccination in low-income and lower-middle-income countries in the COVID-19 Omicron variant era: a modelling study. *BMJ open.* 2022;12(9):e061752.
 10. Mead MN, Seneff S, Wolfinger R, Rose J, Denhaerynck K, Kirsch S, et al. COVID-19 mRNA vaccines: Lessons learned from the registrational trials and global vaccination campaign. *Cureus.* 2024;16(1):e52876.