COVID Inquiry Submission

To whom these concerns

Below are my thoughts & concerns relative to the Federal & State health responses to the COVID 19 pandemic.

1.Federal & State Vaccine procurement probity (ARTGA, ATAGI probity) ensuring protections on behalf of the Australian public from *Unethical Suppliers*.

A range of probity measures are employed to safeguard federal & state procurement processes.

Appropriate supplier due diligence is implicit in Federal procurement probity. A history of supplier criminality, in particular "fraudulent pharmaceutical marketing" should be a self-evident red flag.

A simple search on the matter by any health bureau would have raised red flags – Pfizer's, corporate history.

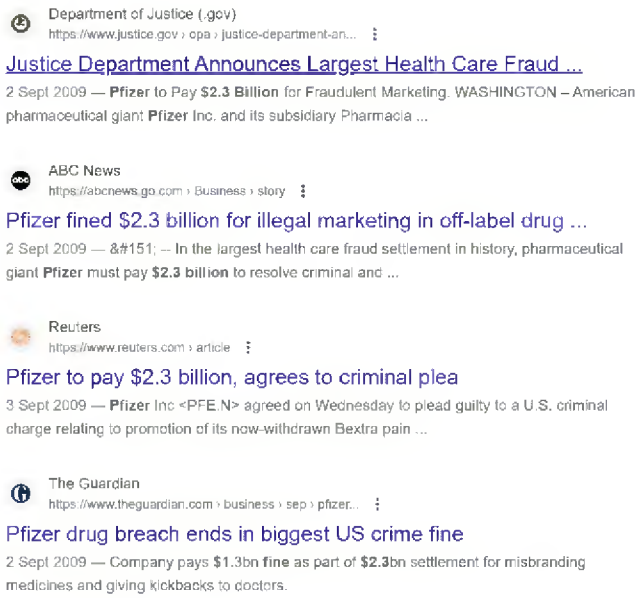
[redacted] ***See International news headlines below.

- The ARTGA have not undertaken Australian trials and testing but rather rely on the pharmaceutical companies own submitted safety data. Can we trust this is accurate and not influenced by revenue? My points of concern here
- ARTGA is funded by the Pharmaceutical & Medical Device Industry – a broad conflict of interest.
- Again, Pfizer is not a model Corporate Citizen – Historically they attracted a record [redacted] Pfizer made 9.6 billion profits in 2020. Again, in November 2021 the prestigious British Medical Journal exposed Pfizer-BioNTech safety conduct – whistle blowing on gross inaccuracies & falsified safety data – COVID-19 vaccine[1]. In August 2021 the "final FDA approval", Comnarity, was ruled against by a Federal US Judge. (See Copy of ongoing research required in the FDA approval. Clearly the jury is out on safety and further data required by 2026!)

  Nov: 2021 A Federal District Court rejected a claim by the U.S. Department of Defence that the Pfizer-BioNTech COVID-19 vaccine being administered under

[1] Covid-19: Researcher blows the whistle on data integrity issues in Pfizer's vaccine trial (bmj.com) https://www.bmj.com/content/bmj/375/bmj.n2635.full.pdf

Emergency Use Authorization is interchangeable with Pfizer's fully licensed Comirnaty vaccine. The FDA provided no explanation as to how the licensed Comirnaty vaccine & the Pfizer-BioNTech EUA vaccine could "be used interchangeably" despite having "certain differences" that make them "legally distinct." *Corporate Trickery!*



Informed Consent

- In the Australian Government's Immunisation Handbook under Section 2.1.3 Valid Consent, it states that for consent to be legally valid "It must be given voluntarily in the absence of undue pressure, coercion or manipulation."
- Consent to a medical procedure requires the patient or recipient, after being informed of the risks and benefits of the procedure, can freely choose to undergo or decline the procedure.

Here are several failures of the consent process I experienced personally.

On request of "safety information", contraindications, side effects, pharmacokinetic interactions, neither my local GP nor Pharmacy could offer documentation to that effect. First national vaccine rollout. No information, besides the media mantra "safe & effective" – there was NO informed consent. Employers could not supply safety information likewise. Vaccination staff complained that

the adverse reactions pharmacokinetic contraindication sheets that come with EVERY injectable were missing BLANK.

Terminated Employment (Friends & Family experience economic hardship) due to undue pressure, coercion & subsequent loss of income & mental burdens. To have your livelihood put at risk due to a health choice, from experience, this stressful & conflicted. Its dishonest to suggest that the experimental gene therapy mandates were absence of undue pressure, coercion or potential manipulation. Employers (particularly Corporates) were clearly moved in lockstep.

Mandates, Mask, Jabs & lockdowns were not in the National Pandemic Plan preceding COVID 19 2019. – Employers should have been able to align the National Pandemic Plan, NOT *Chinese styled* lockdowns that were proven ineffective by March 2021 - Over 40 overseas studies were available to state & federal health officials, underscoring weakness of mandates & lockdowns.

Again, consent to a medical procedure requires the patient or recipient, after being informed of the risks and benefits of the procedure, can freely choose to undergo or decline the procedure.

- On 22 February 2021 the Federal Minister for Health Greg Hunt MP described Australia's Covid-19 vaccine rollout as being part of a global clinical trial.

  In ordinary circumstances I would not consent to participating in a clinical trial, The Covid -19 vaccines being trialled in Australia do not provide immunity against the SARS-CoV-2 virus or any of its variants. Nor do the vaccines prevent transmission.

  I would not consent to a medical procedure that does not provide protection against infection. This presents to me an unnecessary health risk for no perceived health benefit.

- There are anti- viral treatments available that provide protection against SARS-CoV-2 and that also treats the symptoms of Covid-19.

  I would consider using these alternative treatments, that have proven to be safe and effective over a long period of time, before taking any of the currently available Covid-19 vaccines.

- Covid-19 has not proven to be a significant threat to human health on a nationally significant scale. Only a very small portion of the Australia's general population is at risk of becoming seriously unwell from Covid-19; namely the elderly and the already sick. The average age of

death from Covid-19 in Australia is over 80 years of age. [redacted] cohort has a survival rate of 99.73%, similar risk to dying form a pedestrian accident.

I further note that numerous laws, regulations and policies protect the right of informed consent in receiving a vaccine or any medical procedure, including but limited to:

- The Commonwealth Constitution s.51(xxiiiA) which prohibits civil conscription into medical and dental services.
- The Biosecurity Act 2015 (Cth) s.95 prohibits the use of force for vaccination.
- The Biosecurity Act 2015 (Cth) s.92 prohibits vaccination or treatment without an individual Biosecurity Control Order with stringent requirements.
- Article 6 of the UNESCO statement on Bioethics and Human Rights, Section 1, states "Any preventative diagnostic and therapeutic medical intervention is only to be carried out with the prior free and informed consent of the person concerned, based on adequate information. The consent should, where appropriate, be express and may be withdrawn by the person concerned at any time and for any reason, without disadvantage and without prejudice".
- Nuremberg Code, Article 1, states "The voluntary consent of the human subject is absolutely essential".
- The Siracusa Principles, adopted by the UN Economic and Social Council in 1984 provide authoritative guidance on government responses that restrict human rights for reasons of public health or national emergency. These Principles state that measures taken to protect the population that limit people's rights and freedoms must be lawful, necessary, and proportionate.
- Section 83.4 of the Criminal Code Act 1995 (Cth), which relates to interfering with political liberty states "Any person who, by violence or by threats or intimidation of any kind, hinders or interferes with the free exercise or performance, by any other person of any political right or duty shall be guilty of an offence".

Embedded in the Australian Health Practitioner Regulation Agency's (AHPRA) Registered Nurse Standards for Practice are the words [a *nurse] advocates on behalf of people in a manner that respects the person's autonomy and legal perspective' (Standard 2.5).*

To keep this short – A nurse cannot provide advocacy considering my above commentary & concerns.

Time does not permit to cover in detail I also draw your attention to the following:

2021 Failure of Federal & State Health Authorities to learn from their northern hemisphere counterparts & world epidemiological experts that mandates (Lockdowns, Masks) etc failed to protect populations & were projected to cause economic hardship.

Media vilification & censorship dividing the Australian people. This can only be described as Orwellian. If you had a counter narrative people were ostracised & defamed.

Failure of regulatory bodies (ATAGI, ARTGA, State Epidemiologists & Health Ministers) to react & protect the Australian population, once SIGNAL – SENTINAL data dramatically increased (exploded) from 30 yrs. of signal data relative to OTHER vaccines "we have a problem Houston" - (DAEN) https://www.tga.gov.au/safety/safety/safety-monitoring-daen-database-adverse-event-notifications/database-adverse-event-notifications-daen

The same relative to the US Vaccine adverse reaction databases

Open- VAERS is a private organization that posts publicly available **CDC/FDA data of injuries reported post-vaccination.** Signals from the US Military Health Databases had exponential signal data with associated SERIOUS harm. https://openvaers.com/

By 27th June 2021, **ARTGA, AUSTRALIA** had recorded 9 reports of death, confirmed, linked to immunization from 535 reports received and reviewed.

WHY the rollout of vaccines was NOT STOPPED till detailed review is UNACCEPTABLE !

The Australia public unwittingly were subjected to experimental trials – See the attached, The Pfizer FDA approval in August 2021, under the Emergency USE Authorization (2020) has ongoing research requirements, as part of the approval.

Study(s) completion: Due 2023 - December 2026! https://www.fda.gov/media/15170/download

Also, why were studies from world renown epidemiologists ignored. Is parochialism a cultural defect in our Health Departments & responsible Health Bureaucrat's that we could not respond to reputable experts & research from other countries?

I note that Bloomberg & Science.Org reported "the largest real-world analysis comparing natural immunity – gained from an earlier infection – to the protection provided by one of

the most potent vaccines currently in use." people who were vaccinated in January and February were, in June, July, and the first half of August, six to 13 times more likely to get infected than unvaccinated people who were previously infected with the coronavirus. In one analysis, comparing more than 32,000 people in the health system, the risk of developing symptomatic COVID-19 was 27 times higher among the vaccinated, and the risk of hospitalization eight times higher.

Having SARS-CoV-2 once confers much greater immunity than a vaccine—but vaccination remains vital | Science | AAAS

Authors of the Great Barrington Declaration – refer to LinkedIn.

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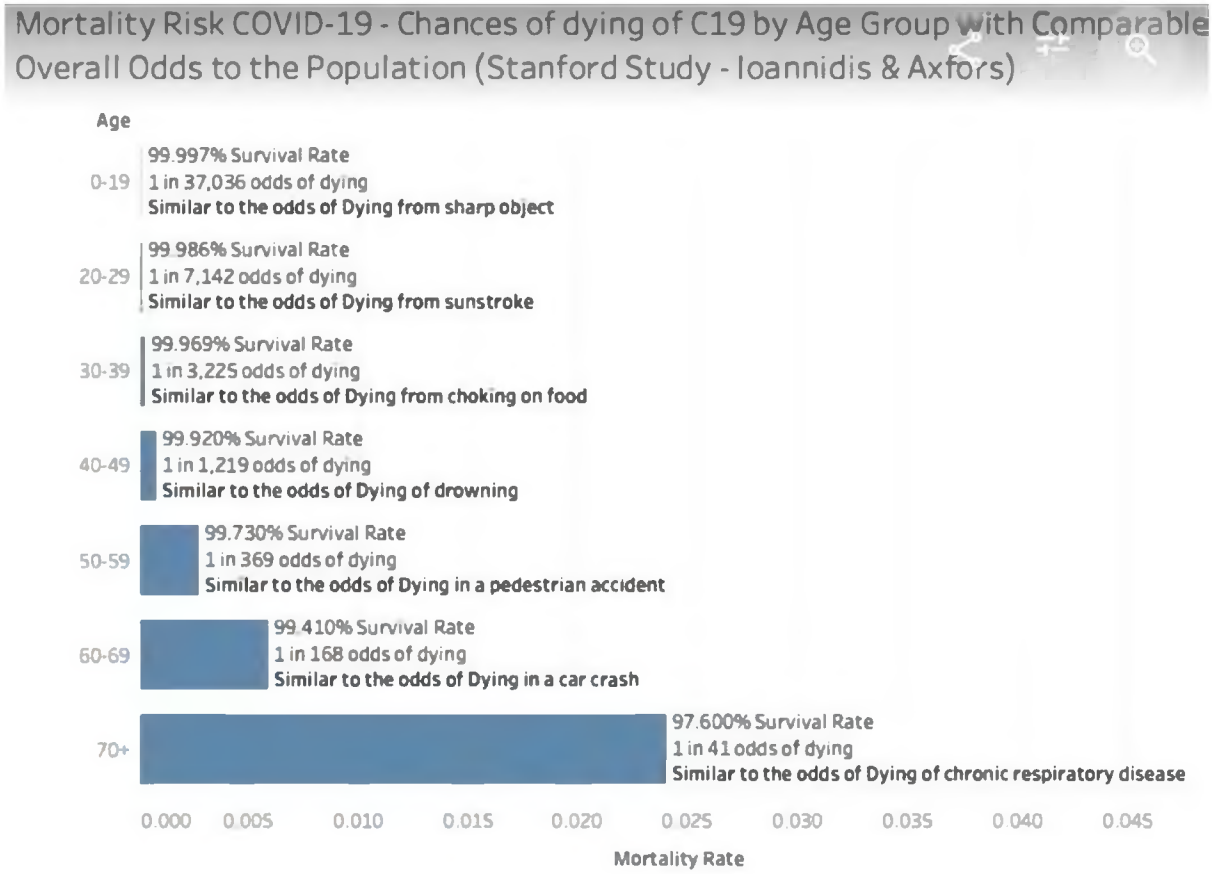
Let the data speak.


Mortality Risk COVID-19 - Chances of dying of C19 by Age Group with Comparable Overall Odds to the Population (Stanford Study - Ioannidis & Axfors)
Age
0-19
99.997% Survival Rate
1 in 37,036 odds of dying
Similar to the odds of Dying from sharp object
20-29
99.986% Survival Rate
1 in 7,142 odds of dying
Similar to the odds of Dying from sunstroke
30-39
99.969% Survival Rate
1 in 3,225 odds of dying
Similar to the odds of Dying from choking on food
40-49
99.920% Survival Rate
1 in 1,219 odds of dying
Similar to the odds of Dying of drowning
50-59
99.730% Survival Rate
1 in 369 odds of dying
Similar to the odds of Dying in a pedestrian accident
60-69
99.410% Survival Rate
1 in 168 odds of dying
Similar to the odds of Dying in a car crash
70+
97.600% Survival Rate
1 in 41 odds of dying
Similar to the odds of Dying of chronic respiratory disease
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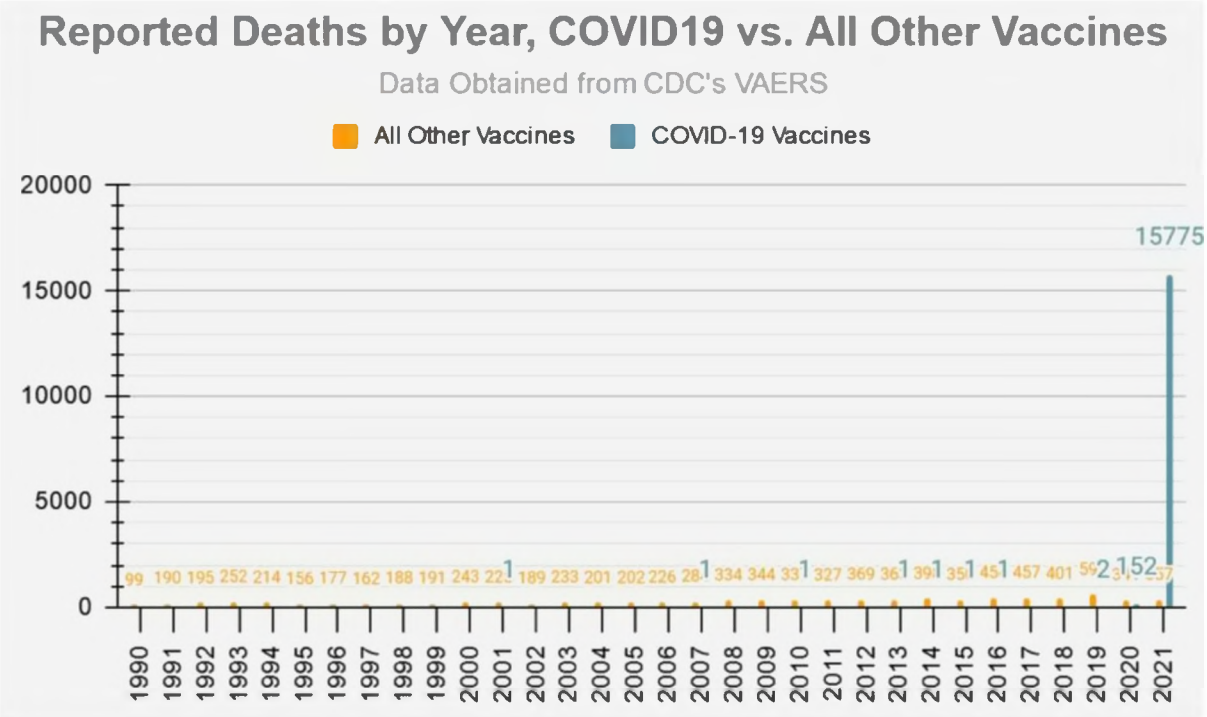
Mortality Rate


Reported Deaths by Year, COVID19 vs. All Other Vaccines
Data Obtained from CDC's VAERS
All Other Vaccines
COVID-19 Vaccines
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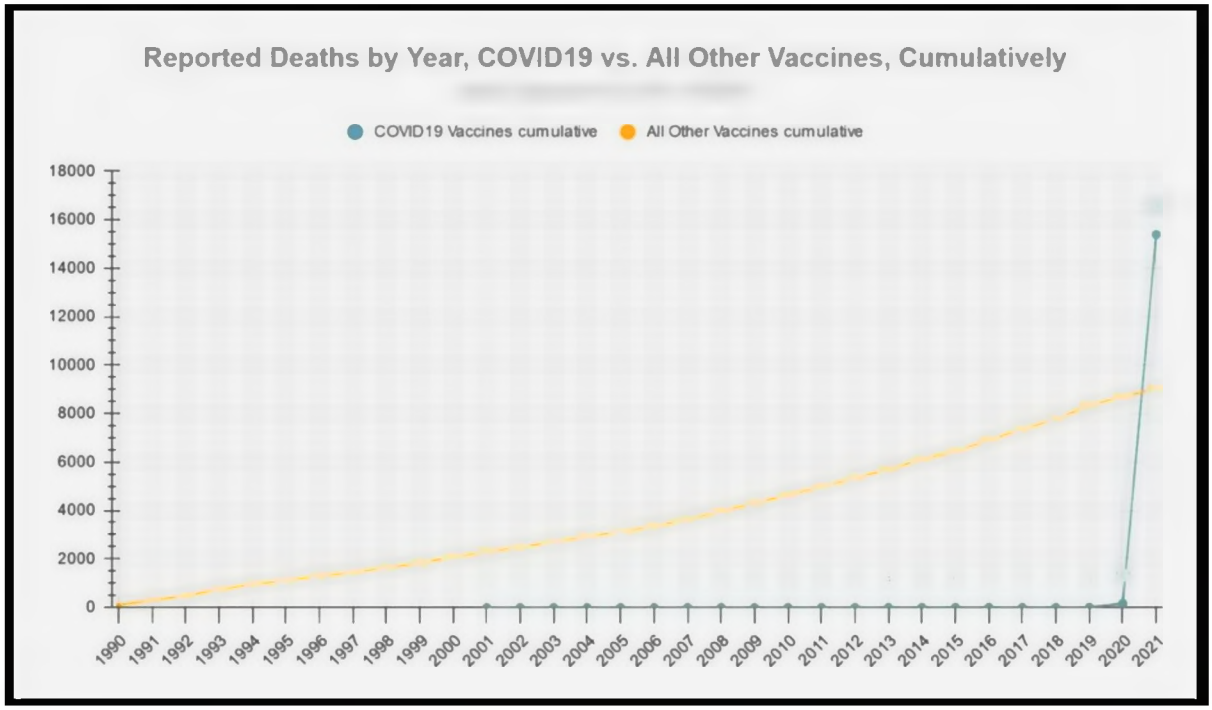


Other readings

1. "A country level analysis measuring the impact of government actions, country preparedness and socioeconomic factors on COVID-19 mortality and related health outcomes" by Rabail Chaudhry, George Dranitsaris, Talha Mubashir, Justyna Bartoszko, Sheila Riazi. EClinicalMedicine 25 (2020) 100464. "[F]ull lockdowns and wide-spread COVID-19 testing were not associated with reductions in the number of critical cases or overall mortality."

2. "Was Germany's Corona Lockdown Necessary?" by Christof Kuhbandner, Stefan Homburg, Harald Walach, Stefan Hockertz. Advance: Sage Preprint, June 23, 2020. "Official data from Germany's RKI agency suggest strongly that the spread of the coronavirus in Germany receded autonomously, before any interventions became effective. Several reasons for such an autonomous decline have been suggested. One is that differences in host susceptibility and behavior can result in herd immunity at a relatively low prevalence level. Accounting for individual variation in susceptibility or exposure to the coronavirus yields a maximum of 17% to 20% of the population that needs to be infected to reach herd immunity, an estimate that is empirically supported by the cohort of the Diamond Princess cruise ship. Another reason is that seasonality may also play an important role in dissipation."

3. "Estimation of the current development of the SARS-CoV-2 epidemic in Germany" by Matthias an der Heiden, Osamah Hamouda. Robert Koch-Institut, April 22, 2020. "In general, however, not all infected people develop symptoms, not all those who develop symptoms go to a doctor's office, not all who go to the doctor are tested and not all who test positive are also recorded in a data collection system. In addition, there is a certain amount of time between all these individual steps, so that no survey system, no matter how good, can make a statement about the current infection process without additional assumptions and calculations."

4. Did COVID-19 infections decline before UK lockdown? by Simon N. Wood. Cornell University pre-print, August 8, 2020. "A Bayesian inverse problem approach applied to UK data on COVID-19 deaths and the disease duration distribution suggests that infections were in decline before full UK lockdown (24 March 2020), and that infections in Sweden started to decline only a day or two later. An analysis of UK data using the model of Flaxman et al. (2020, Nature 584) gives the same result under relaxation of its prior assumptions on R."

5. "Comment on Flaxman et al. (2020): The illusory effects of non-pharmaceutical interventions on COVID-19 in Europe" by Stefan Homburg and Christof Kuhbandner. June 17, 2020. Advance, Sage Pre-Print. "In a recent article, Flaxman et al. allege that non-pharmaceutical interventions imposed by 11 European countries saved millions of lives. We show that their methods involve circular reasoning. The purported effects are pure artefacts, which contradict the data. Moreover, we demonstrate that the United Kingdom's lockdown was both superfluous and ineffective."

6. Professor Ben Israel's Analysis of virus transmission. April 16, 2020. "Some may claim that the decline in the number of additional patients every day is a result of the tight lockdown imposed by the government and health authorities. Examining the data of different countries around the world casts a heavy question mark on the above statement. It turns out that a similar

pattern – rapid increase in infections that reaches a peak in the sixth week and declines from the eighth week – is common to all countries in which the disease was discovered, regardless of their response policies: some imposed a severe and immediate lockdown that included not only 'social distancing' and banning crowding, but also shutout of economy (like Israel); some 'ignored' the infection and continued almost a normal life (such as Taiwan, Korea or Sweden), and some initially adopted a lenient policy but soon reversed to a complete lockdown (such as Italy or the State of New York). Nonetheless, the data shows similar time constants amongst all these countries in regard to the initial rapid growth and the decline of the disease."

7. "Impact of non-pharmaceutical interventions against COVID-19 in Europe: a quasi-experimental study" by Paul Raymond Hunter, Felipe Colon-Gonzalez, Julii Suzanne Brainard, Steve Rushton. MedRxiv Pre-print May 1, 2020. "The current epidemic of COVID-19 is unparalleled in recent history as are the social distancing interventions that have led to a significant halt on the economic and social life of so many countries. However, there is very little empirical evidence about which social distancing measures have the most impact… From both sets of modelling, we found that closure of education facilities, prohibiting mass gatherings and closure of some non-essential businesses were associated with reduced incidence whereas stay at home orders and closure of all non-businesses was not associated with any independent additional impact."

8. "Full lockdown policies in Western Europe countries have no evident impacts on the COVID-19 epidemic" by Thomas Meunier. MedRxiv Pre-print May 1, 2020. "This phenomenological study assesses the impacts of full lockdown strategies applied in Italy, France, Spain and United Kingdom, on the slowdown of the 2020 COVID-19 outbreak. Comparing the trajectory of the epidemic before and after the lockdown, we find no evidence of any discontinuity in the growth rate, doubling time, and reproduction number trends. Extrapolating pre-lockdown growth rate trends, we provide estimates of the death toll in the absence of any lockdown policies, and show that these strategies might not have saved any life in western Europe. We also show that neighboring countries applying less restrictive social distancing measures (as opposed to police-enforced home containment) experience a very similar time evolution of the epidemic."

9. "Trajectory of COVID-19 epidemic in Europe" by Marco Colombo, Joseph Mellor, Helen M Colhoun, M. Gabriela M. Gomes, Paul M McKeigue. MedRxiv Pre-print. Posted September 28, 2020. "The classic Susceptible-Infected-Recovered model formulated by Kermack and McKendrick assumes that all individuals in the population are equally susceptible to infection. From fitting such a model to the trajectory of mortality from COVID-19 in 11 European countries up to 4 May 2020 Flaxman et al. concluded that 'major non-pharmaceutical interventions — and lockdowns in particular — have had a large effect on reducing transmission'. We show that relaxing the assumption of homogeneity to allow for individual variation in susceptibility or connectivity gives a model that has better fit to the data and more accurate 14-day forward prediction of mortality. Allowing for heterogeneity reduces the estimate of 'counterfactual' deaths that would have occurred if there had been no interventions from 3.2 million to 262,000, implying that most of the slowing and reversal of COVID-19 mortality is explained by the build-up of herd immunity. The estimate of the herd immunity threshold depends on the value specified for the infection fatality ratio (IFR): a value of 0.3% for the IFR gives 15% for the average herd immunity threshold."

10. "Effect of school closures on mortality from coronavirus disease 2019: old and new predictions" by Ken Rice, Ben Wynne, Victoria Martin, Graeme J Ackland. British Medical Journal, September 15, 2020. "The findings of this study suggest that prompt interventions were shown to be highly effective at reducing peak demand for intensive care unit (ICU) beds but also prolong the epidemic, in some cases resulting in more deaths long term. This happens because covid-19 related mortality is highly skewed towards older age groups. In the absence of an effective vaccination programme, none of the proposed mitigation strategies in the UK would reduce the predicted total number of deaths below 200 000."

11. "Modeling social distancing strategies to prevent SARS-CoV2 spread in Israel- A Cost-effectiveness analysis" by Amir Shlomai, Ari Leshno, Ella H Sklan, Moshe Leshno. MedRxiv Pre-Print. September 20, 2020. "A nationwide lockdown is expected to save on average 274 (median 124, interquartile range (IQR): 71-221) lives compared to the 'testing, tracing, and isolation' approach. However, the ICER will be on average $45,104,156 (median $ 49.6 million, IQR: 22.7-220.1) to prevent one case of death. Conclusions: A national lockdown has a moderate advantage in saving lives with tremendous costs and possible overwhelming economic effects. These findings should assist decision-makers in dealing with additional waves of this pandemic."

12. Too Little of a Good Thing A Paradox of Moderate Infection Control, by Ted Cohen and Marc Lipsitch. Epidemiology. 2008 Jul; 19(4): 588–589. "The link between limiting pathogen exposure and improving public health is not always so straightforward. Reducing the risk that each member of a community will be exposed to a pathogen has the attendant effect of increasing the average age at which infections occur. For pathogens that inflict greater morbidity at older ages, interventions that reduce but do not eliminate exposure can paradoxically increase the number of cases of severe disease by shifting the burden of infection toward older individuals."

13. "Smart Thinking, Lockdown and COVID-19: Implications for Public Policy" by Morris Altman. Journal of Behavioral Economics for Policy, 2020. "The response to COVID-19 has been overwhelmingly to lockdown much of the world's economies in order to minimize death rates as well as the immediate negative effects of COVID-19. I argue that such policy is too often de-contextualized as it ignores policy externalities, assumes death rate calculations are appropriately accurate and, and as well, assumes focusing on direct Covid-19 effects to maximize human welfare is appropriate. As a result of this approach current policy can be misdirected and with highly negative effects on human welfare. Moreover, such policies can inadvertently result in

not minimizing death rates (incorporating externalities) at all, especially in the long run. Such misdirected and sub-optimal policy is a product of policy makers using inappropriate mental models which are lacking in a number of key areas; the failure to take a more comprehensive macro perspective to address the virus, using bad heuristics or decision-making tools, relatedly not recognizing the differential effects of the virus, and adopting herding strategy (follow-the-leader) when developing policy. Improving the decision-making environment, inclusive of providing more comprehensive governance and improving mental models could have lockdowns throughout the world thus yielding much higher levels of human welfare."

14. "SARS-CoV-2 waves in Europe: A 2-stratum SEIRS model solution" by Levan Djaparidze and Federico Lois. MedRxiv pre-print, October 23, 2020. "We found that 180-day of mandatory isolations to healthy <60 (i.e. schools and workplaces closed) produces more final deaths if the vaccination date is later than (Madrid: Feb 23 2021; Catalonia: Dec 28 2020; Paris: Jan 14 2021; London: Jan 22 2021). We also modeled how average isolation levels change the probability of getting infected for a single individual that isolates differently than average. That led us to realize disease damages to third parties due to virus spreading can be calculated and to postulate that an individual has the right to avoid isolation during epidemics (SARS-CoV-2 or any other)."

15. "Did Lockdown Work? An Economist's Cross-Country Comparison" by Christian Bjørnskov. *CESifo Economic Studies* March 29, 2021. "The lockdowns in most Western countries have thrown the world into the most severe recession since World War II and the most rapidly developing recession ever seen in mature market economies. They have also caused an erosion of fundamental rights and the separation of powers in a large part of the world as both democratic and autocratic regimes have misused their emergency powers and ignored constitutional limits to policy-making (Bjørnskov and Voigt, 2020). It is therefore important to evaluate whether and to which extent the lockdowns have worked as officially intended: to suppress the spread of the SARS-CoV-2 virus and prevent deaths associated with it. Comparing weekly mortality in 24 European countries, the findings in this paper suggest that more severe lockdown policies have not been associated with lower mortality. In other words, the lockdowns have not worked as intended."

16."Four Stylized Facts about COVID-19" (alt-link) by Andrew Atkeson, Karen Kopecky, and Tao Zha. NBER working paper 27719, August 2020. "One of the central policy questions regarding the COVID-19 pandemic is the question of which non-pharmeceutical interventions governments might use to influence the transmission of the disease. Our ability to identify empirically which NPI's have what impact on disease transmission depends on there being enough independent variation in both NPI's and disease transmission across locations as well as our having robust procedures for controlling for other observed and unobserved factors that might be influencing disease transmission. The facts that we document in this paper cast doubt on this premise.... The existing literature has concluded that NPI policy and social distancing have been essential to reducing the spread of COVID-19 and the number of deaths due to this deadly pandemic. The stylized facts established in this paper challenge this conclusion."

17. "How does Belarus have one of the lowest death rates in Europe?" by Kata Karáth. British Medical Journal, September 15, 2020. "Belarus's beleaguered government remains unfazed by covid-19. President Aleksander Lukashenko, who has been in power since 1994, has flatly denied the seriousness of the pandemic, refusing to impose a lockdown, close schools, or cancel mass events like the Belarusian football league or the Victory Day parade. Yet the country's death rate is among the lowest in Europe—just over 700 in a population of 9.5 million with over 73 000 confirmed cases."

18. "Association between living with children and outcomes from COVID-19: an OpenSAFELY cohort study of 12 million adults in England" by Harriet Forbes, Caroline E Morton, Seb Bacon et al., by MedRxiv, November 2, 2020. "Among 9,157,814 adults ≤65 years, living with children 0-11 years was not associated with increased risks of recorded SARS-CoV-2 infection, COVID-19 related hospital or ICU admission but was associated with reduced risk of COVID-19 death (HR 0.75, 95%CI 0.62-0.92). Living with children aged 12-18 years was associated with a small increased risk of recorded SARS-CoV-2 infection (HR 1.08, 95%CI 1.03-1.13), but not associated with other COVID-19 outcomes. Living with children of any age was also associated with lower risk of dying from non-COVID-19 causes. Among 2,567,671 adults >65 years there was no association between living with children and outcomes related to SARS-CoV-2. We observed no consistent changes in risk following school closure."

19. "Exploring inter-country coronavirus mortality" By Trevor Nell, Ian McGorian, Nick Hudson. Pandata, July 7, 2020. "For each country put forward as an example, usually in some pairwise comparison and with an attendant single cause explanation, there are a host of countries that fail the expectation. We set out to model the disease with every expectation of failure. In choosing variables it was obvious from the outset that there would be contradictory outcomes in the real world. But there were certain variables that appeared to be reliable markers as they had surfaced in much of the media and pre-print papers. These included age, co-morbidity prevalence and the seemingly light population mortality rates in poorer countries than that in richer countries. Even the worst among developing nations—a clutch of countries in equatorial Latin America—have seen lighter overall population mortality than the developed world. Our aim therefore was not to develop the final answer, rather to seek common cause variables that would go some way to providing an explanation and stimulating discussion. There are some very obvious outliers in this theory, not the least of these being Japan. We test and find wanting the popular notions that lockdowns with their attendant social distancing and various other NPIs confer protection."

20. "Covid-19 Mortality: A Matter of Vulnerability Among Nations Facing Limited Margins of Adaptation" by Quentin De Larochelambert, Andy Marc, Juliana Antero, Eric Le Bourg, and Jean-François Toussaint. Frontiers in Public Health, 19 November

2020. "Higher Covid death rates are observed in the [25/65°] latitude and in the [−35/−125°] longitude ranges. The national criteria most associated with death rate are life expectancy and its slowdown, public health context (metabolic and non-communicable diseases (NCD) burden vs. infectious diseases prevalence), economy (growth national product, financial support), and environment (temperature, ultra-violet index). Stringency of the measures settled to fight pandemia, including lockdown, did not appear to be linked with death rate. Countries that already experienced a stagnation or regression of life expectancy, with high income and NCD rates, had the highest price to pay. This burden was not alleviated by more stringent public decisions. Inherent factors have predetermined the Covid-19 mortality: understanding them may improve prevention strategies by increasing population resilience through better physical fitness and immunity."

21. "States with the Fewest Coronavirus Restrictions" by Adam McCann. WalletHub, Oct 6, 2020. This study assesses and ranks stringencies in the United States by states. The results are plotted against deaths per capita and unemployment. The graphics reveal no relationship in stringency level as it relates to the death rates, but finds a clear relationship between stringency and unemployment.

22. The Mystery of Taiwan: Commentary on the Lancet Study of Taiwan and New Zealand, by Amelia Janaskie. American Institute for Economic Research, November 2, 2020. "The Taiwanese case reveals something extraordinary about pandemic response. As much as public-health authorities imagine that the trajectory of a new virus can be influenced or even controlled by policies and responses, the current and past experiences of coronavirus illustrate a different point. The severity of a new virus might have far more to do with endogenous factors within a population rather than the political response. According to the lockdown narrative, Taiwan did almost everything 'wrong' but generated what might in fact be the best results in terms of public health of any country in the world."

23. "Predicting the Trajectory of Any COVID19 Epidemic From the Best Straight Line" by Michael Levitt, Andrea Scaiewicz, Francesco Zonta. MedRxiv, Pre-print, June 30, 2020. "Comparison of locations with over 50 deaths shows all outbreaks have a common feature: H(t) defined as $\log_e(X(t)/X(t-1))$ decreases linearly on a log scale, where X(t) is the total number of Cases or Deaths on day, t (we use ln for $\log_e$). The downward slopes vary by about a factor of three with time constants (1/slope) of between 1 and 3 weeks; this suggests it may be possible to predict when an outbreak will end. Is it possible to go beyond this and perform early prediction of the outcome in terms of the eventual plateau number of total confirmed cases or deaths? We test this hypothesis by showing that the trajectory of cases or deaths in any outbreak can be converted into a straight line. Specifically $Y(t) \equiv -\ln(\ln(N/X(t))$,is a straight line for the correct plateau value N, which is determined by a new method, Best-Line Fitting (BLF). BLF involves a straight-line facilitation extrapolation needed for prediction; it is blindingly fast and amenable to optimization. We find that in some locations that entire trajectory can be predicted early, whereas others take longer to follow this simple functional form."

24. "Government mandated lockdowns do not reduce Covid-19 deaths: implications for evaluating the stringent New Zealand response" by John Gibson. New Zealand Economic Papers, August 25, 2020. "The New Zealand policy response to Coronavirus was the most stringent in the world during the Level 4 lockdown. Up to 10 billion dollars of output (≈3.3% of GDP) was lost in moving to Level 4 rather than staying at Level 2, according to Treasury calculations. For lockdown to be optimal requires large health benefits to offset this output loss. Forecast deaths from epidemiological models are not valid counterfactuals, due to poor identification. Instead, I use empirical data, based on variation amongst United States counties, over one-fifth of which just had social distancing rather than lockdown. Political drivers of lockdown provide identification. Lockdowns do not reduce Covid-19 deaths. This pattern is visible on each date that key lockdown decisions were made in New Zealand. The apparent ineffectiveness of lockdowns suggests that New Zealand suffered large economic costs for little benefit in terms of lives saved."

25. "Lockdowns and Closures vs COVID – 19: COVID Wins" by Surjit S Bhalla, executive director for India of the International Monetary Fund. "For the first time in human history, lockdowns were used as a strategy to counter the virus. While conventional wisdom, to date, has been that lockdowns were successful (ranging from mild to spectacular) we find not one piece of evidence supporting this claim."

26. "Effects of non-pharmaceutical interventions on COVID-19: A Tale of Three Models" by Vincent Chin, John P.A. Ioannidis, Martin A. Tanner, Sally Cripps, MedXriv, July 22, 2020. "Inferences on effects of NPIs are non-robust and highly sensitive to model specification. Claimed benefits of lockdown appear grossly exaggerated."

27. "Assessing Mandatory Stay-at-Home and Business Closure Effects on the Spread of COVID-19" by Eran Bendavid, Christopher Oh, Jay Bhattacharya, John P.A. Ioannidis. European Journal of Clinical Investigation, January 5, 2021. "Implementing any NPIs was associated with significant reductions in case growth in 9 out of 10 study countries, including South Korea and Sweden that implemented only lrNPIs (Spain had a non-significant effect). After subtracting the epidemic and lrNPI effects, we find no clear, significant beneficial effect of mrNPIs on case growth in any country. In France, e.g., the effect of mrNPIs was +7% (95CI -5%-19%) when compared with Sweden, and +13% (-12%-38%) when compared with South Korea (positive means pro-contagion). The 95% confidence intervals excluded 30% declines in all 16 comparisons and 15% declines in 11/16 comparisons."

28. "Lockdown Effects on Sars-CoV-2 Transmission – The evidence from Northern Jutland" by Kasper Planeta Kepp and Christian Bjørnskov. MedXriv, January 4, /2021."The exact impact of lockdowns and other NPIs on Sars-CoV-2 transmission

remain a matter of debate as early models assumed 100% susceptible homogenously transmitting populations, an assumption known to overestimate counterfactual transmission, and since most real epidemiological data are subject to massive confounding variables. Here, we analyse the unique case-controlled epidemiological dataset arising from the selective lockdown of parts of Northern Denmark, but not others, as a consequence of the spread of mink-related mutations in November 2020. Our analysis shows that while infection levels decreased, they did so before lockdown was effective, and infection numbers also decreased in neighbour municipalities without mandates. Direct spill-over to neighbour municipalities or the simultaneous mass testing do not explain this. Instead, control of infection pockets possibly together with voluntary social behaviour was apparently effective before the mandate, explaining why the infection decline occurred before and in both the mandated and non-mandated areas. The data suggest that efficient infection surveillance and voluntary compliance make full lockdowns unnecessary at least in some circumstances."

29. "A First Literature Review: Lockdowns Only Had a Small Effect on COVID-19" by Jonas Herby, SSRN, January 6, 2021. "How important was the economic lockdowns in the spring of 2020 in curbing the COVID-19 pan-demic and how important was the lockdown in comparison to voluntary changes in behavior? In the spring, the overall social response to the COVID-19 pandemic consisted of a mix of voluntary and government mandated behavior changes. Voluntary behavior changes occurred on the basis of information, such as the number of people infected, the number of COVID-19-deaths and on the basis of the signal value associated with the official lockdown combined with appeals to the population to change its behavior. Mandated behavior changes took place as a result of the ban-ning of certain activities deemed non-essential. Studies which differentiate between the two types of behavioral change find that, on average, mandated behavior changes accounts for only 9% (median: 0%) of the total effect on the growth of the pandemic stemming from behavioral changes. The remaining 91% (median: 100%) of the effect was due to voluntary behavior changes. This is excluding the effect of curfew and facemasks, which was not employed in all countries."

30. "The effect of interventions on COVID-19" by Kristian Soltesz, Fredrik Gustafsson, Toomas Timpka, Joakim Jaldén, Carl Jidling, Albin Heimerson, Thomas B. Schön, Armin Spreco, Joakim Ekberg, Örjan Dahlström, Fredrik Bagge Carlson, Anna Jöud & Bo Bernhardsson . *Nature*, December 23, 202. "Flaxman et al. took on the challenge of estimating the effectiveness of five categories of non-pharmaceutical intervention (NPI)—social distancing encouraged, self isolation, school closures, public events banned, and complete lockdown—on the spread of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). On the basis of mortality data collected between January and early May 2020, they concluded that only one of these, the lockdown, had been effective in 10 out of the 11 European countries that were studied. However, here we use simulations with the original model code to suggest that the conclusions of Flaxman et al. with regard to the effectiveness of individual NPIs are not justified. Although the NPIs that were considered have indisputably contributed to reducing the spread of the virus, our analysis indicates that the individual effectiveness of these NPIs cannot be reliably quantified."

31. "Stay-at-home policy is a case of exception fallacy: an internet-based ecological study," by R. F. Savaris, G. Rumi, J. Dalzochio & R. Kunst. Nature, March 5, 2021. "A recent mathematical model has suggested that staying at home did not play a dominant role in reducing COVID-19 transmission. The second wave of cases in Europe, in regions that were considered as COVID-19 controlled, may raise some concerns. Our objective was to assess the association between staying at home (%) and the reduction/increase in the number of deaths due to COVID-19 in several regions in the world.... After preprocessing the data, 87 regions around the world were included, yielding 3741 pairwise comparisons for linear regression analysis. Only 63 (1.6%) comparisons were significant. With our results, we were not able to explain if COVID-19 mortality is reduced by staying at home in ~ 98% of the comparisons after epidemiological weeks 9 to 34.... We were not able to explain the variation of deaths/million in different regions in the world by social isolation, herein analyzed as differences in staying at home, compared to baseline. In the *restrictive* and *global* comparisons, only 3% and 1.6% of the comparisons were significantly different, respectively."

32. "Evaluating the effects of shelter-in-place policies during the COVID-19 pandemic" by Christopher R. Berry, Anthony Fowler, Tamara Glazer, Samantha Handel-Meyer, and Alec MacMillen, Proceedings of the National Academy of Science of the USA, April 13, 2021. "We study the health, behavioral, and economic effects of one of the most politically controversial policies in recent memory, shelter-in-place orders during the COVID-19 pandemic. Previous studies have claimed that shelter-in-place orders saved thousands of lives, but we reassess these analyses and show that they are not reliable. We find that shelter-in-place orders had no detectable health benefits, only modest effects on behavior, and small but adverse effects on the economy. To be clear, our study should not be interpreted as evidence that social distancing behaviors are not effective. Many people had already changed their behaviors before the introduction of shelter-in-place orders, and shelter-in-place orders appear to have been ineffective precisely because they did not meaningfully alter social distancing behavior."

33. "Inferring UK COVID-19 fatal infection trajectories from daily mortality data: Were infections already in decline before the UK lockdowns?" by Simon Wood. Biometic Practice, March 30, 2021. "What the results show is that, in the absence of strong assumptions, the currently most reliable openly available data strongly suggest that the decline in infections in the United Kingdom began before the first full lockdown, suggesting that the measures preceding lockdown may have been sufficient to bring the epidemic under control, and that community infections, unlike deaths, were probably at a low level well before the first lockdown was eased. Such a scenario would be consistent with the infection profile in Sweden, which began its decline in fatal infections shortly after the United Kingdom, but did so on the basis of measures well short of full lockdown."

34. "COVID-19 Lockdown Policies: An Interdisciplinary Review" by Oliver Robinson, SSRN (in review) February 21, 2020. "Biomedical evidence from the early months of the pandemic suggests that lockdowns were associated with a reduced viral

reproductive rate, but that less restrictive measures also had a similar effect. Lockdowns are associated with reduced mortality in epidemiological modelling studies but not in studies based on empirical data from the Covid-19 pandemic. Psychological research supports the proposition that lengthy lockdowns may exacerbate stressors such as social isolation and unemployment that have been shown to be strong predictors of falling ill if exposed to a respiratory virus. Studies at the economic level of analysis points to the possibility that deaths associated with economic harms or underfunding of other health issues may outweigh the deaths that lockdowns save, and that the extremely high financial cost of lockdowns may have negative implications for overall population health in terms of diminished resources for treating other conditions. Research on ethics in relation to lockdowns points to the inevitability of value judgements in balancing different kinds of harms and benefits than lockdowns cause."

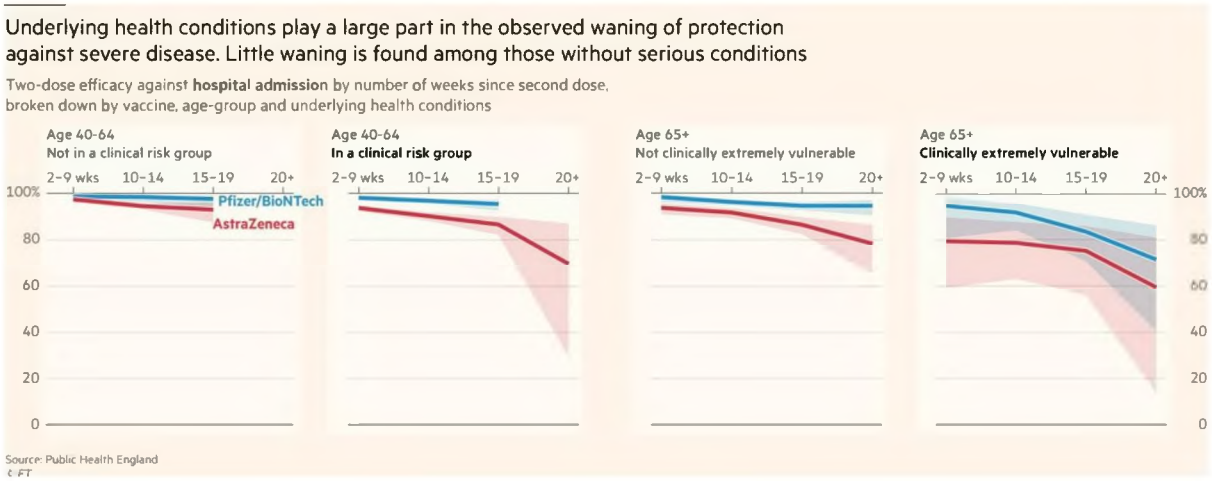
35. "Covid Lockdown Cost/Benefits: A Critical Assessment of the Literature" by Douglas W. Allen. Working paper, Simon Fraser University, April 2021. "An examination of over 80 Covid-19 studies reveals that many relied on assump- tions that were false, and which tended to over-estimate the benefits and under- estimate the costs of lockdown. As a result, most of the early cost/benefit studies arrived at conclusions that were refuted later by data, and which rendered their cost/benefit findings incorrect. Research done over the past six months has shown that lockdowns have had, at best, a marginal effect on the number of Covid-19 deaths. Generally speaking, the ineffectiveness of lockdown stems from volun- tary changes in behavior. Lockdown jurisdictions were not able to prevent non- compliance, and non-lockdown jurisdictions benefited from voluntary changes in behavior that mimicked lockdowns. The limited effectiveness of lockdowns ex- plains why, after one year, the unconditional cumulative deaths per million, and the pattern of daily deaths per million, is not negatively correlated with the strin- gency of lockdown across countries. Using a cost/benefit method proposed by Professor Bryan Caplan, and using two extreme assumptions of lockdown effec- tiveness, the cost/benefit ratio of lockdowns in Canada, in terms of life-years saved, is between 3.6–282. That is, it is possible that lockdown will go down as one of the greatest peacetime policy failures in Canada's history."

Deaths Registered By Age Group, England & Wales
07Mar20 - 30Jul21

Age Group	Population (2020 Mid Year Estimate)	Number of Deaths All Causes	Number of Deaths Involving COVID-19	% Of Population That Died All Causes	% Of Population That Died Involving COVID-19	Probability of Dying Of Any Cause During Period	Probability of Dying Involving COVID-19 During Period	Age Group
<1	631,314	3,362	3	0.53254%	0.00048%	1 in 188	1 in 210,438	<1
1-4	2,769,474	428	1	0.01545%	0.00004%	1 in 6,471	1 in 2,769,474	1-4
5-9	3,721,636	290	3	0.00779%	0.00008%	1 in 12,833	1 in 1,240,545	5-9
10-14	3,620,016	369	10	0.0102%	0.0003%	1 in 9,810	1 in 362,002	10-14
15-19	3,289,692	978	26	0.0297%	0.0008%	1 in 3,364	1 in 126,527	15-19
20-24	3,679,079	1,723	65	0.047%	0.002%	1 in 2,135	1 in 56,601	20-24
25-29	3,979,607	2,471	133	0.062%	0.003%	1 in 1,611	1 in 29,922	25-29
30-34	4,021,324	3,731	257	0.093%	0.006%	1 in 1,078	1 in 15,647	30-34
35-39	3,924,082	5,607	438	0.143%	0.011%	1 in 700	1 in 8,959	35-39
40-44	3,649,233	7,926	740	0.217%	0.020%	1 in 460	1 in 4,931	40-44
45-49	3,831,104	12,934	1,418	0.338%	0.037%	1 in 296	1 in 2,702	45-49
50-54	4,092,321	20,688	2,587	0.506%	0.063%	1 in 198	1 in 1,582	50-54
55-59	3,984,004	29,905	4,250	0.75%	0.11%	1 in 133	1 in 937	55-59
60-64	3,394,229	40,456	6,337	1.19%	0.19%	1 in 84	1 in 536	60-64
65-69	2,964,255	53,579	8,528	1.81%	0.29%	1 in 55	1 in 348	65-69
70-74	2,996,014	84,784	13,388	2.83%	0.45%	1 in 35	1 in 224	70-74
75-79	2,141,015	106,448	18,622	4.97%	0.87%	1 in 20	1 in 115	75-79
80-84	1,539,755	136,269	25,220	8.9%	1.6%	1 in 11	1 in 61	80-84
85-89	939,743	150,325	27,718	16.0%	2.9%	1 in 6	1 in 34	85-89
90+	551,827	178,684	30,247	32.4%	5.5%	1 in 3	1 in 18	90+
Total	**59,719,724**	**840,957**	**139,991**	**1.41%**	**0.23%**	**1 in 71**	**1 in 427**	**Total**

Source Data

https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/weeklyprovisionalfiguresondeathsregisteredinenglandandwales
https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland



Really great analysis by [redacted] in the FT on vaccine waning and implications for boosters. Which if you don't want to read on concludes that if you are healthy (no serious comorbidities) you really don't need one at the moment. And supports calls from people like Sunetra Gupta that first doses to other countries would deliver a far more beneficial global health outcome

Based on data from PHE:

1. On symptomatic infection, shorter intervals between doses leads to faster waning: this may be part of the Israel issue (and possibly US)

2. Efficacy against hospitalisation and death - the primary purpose of the vaccine: little waning for Pfizer even for elderly, only modest waning for AZ still at 80%+ after 5 months

But the biggest insight is that, amongst those without severe comorbidities, neither vaccine appears to wane. There seems to be a pattern here.

So the conclusion is, if you're under 65 and healthy, or even over 65 without serious comorbidities you really shouldn't need a booster

It looks like it's another rushed policy decision not based on science but designed to keep the fear factor going

FT article https://lnkd.in/dEgtNK3x
JMB's Twitter thread on this https://lnkd.in/dSMkJiFS