

**From:** Pubudu Senanayake  
**Sent:** Tuesday, 16 August 2022 11:31 AM  
**To:** Cheriye Hope <xxxxxxxx.xxxx@xxxxxx.xxxx.xx>  
**Subject:** RE: Excess mortality

No worries at all, I think that is a sensible approach. I just have a quick edit to the last para (in line below in black). Just specifying that we see the effect around March to remove any doubts about when the excess deaths happened (as opposed to Jan/Feb as claimed by Prof. Gibson).

Cheers,  
Pubudu

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**From:** Cheriye Hope <[xxxxxxxx.xxxx@xxxxxx.xxxx.xx](mailto:xxxxxxxx.xxxx@xxxxxx.xxxx.xx)>  
**Sent:** Tuesday, 16 August 2022 11:17 AM  
**To:** Pubudu Senanayake <[xxxxxx.xxxxxxxxxxxx@xxxxxx.xxxx.xx](mailto:xxxxxx.xxxxxxxxxxxx@xxxxxx.xxxx.xx)>  
**Subject:** RE: Excess mortality

Kia ora Pubudu

Thanks so much for this! Really appreciate your input. I've spoken to my colleague about using the graph and we think that for this specific writer, we probably don't need to go into that much detail, and can instead inform / persuade the writer enough through the narrative response. Therefore I have kept the first three paragraphs the same and then altered the fourth to say the analysis is being done and will be published soon.

I've pasted the response below (edited paragraph in red). Let me know if you're happy with this or if there's anything to change (note I didn't include that in the preliminary analysis we've observed lower deaths for 2020 and 2021 because that's mentioned in the first paragraph).

Throughout 2020 and 2021 New Zealand experienced deficit deaths (that is fewer deaths than expected, had the pre-pandemic trends continued). While New Zealand is currently observing excess deaths in 2022 (that is more deaths than expected, had the pre-pandemic trends continued), I can assure you that this is not due to the rollout of booster vaccines, and that receiving a first or second booster dose does not increase a person's risk of mortality.

It is important to note that there are many factors that need to be accounted for when analysing excess mortality, such as population changes and other age effects. Because of this reason demographers (experts in population dynamics) always deal with and construct models using death rates (deaths per population). Comparisons of death counts directly without accounting for changes

in rates will almost always lead to inaccurate assessments of excess mortality since population changes are not uniform across age groups. For example, New Zealand's 80+ population is growing much faster than it did even a few years ago.

Another important consideration is that the population receiving boosters have a much higher risk of death from COVID-19, and the excess mortality observed is largely a result of deaths caused by COVID-19 circulating in the elderly communities.

An analysis of the observed weekly deaths compared to the expected deaths across the pandemic is currently going through the peer review process for publication. Preliminary analysis shows that around March 2022, there was a large increase in deaths above the average ~~expectations~~ expectations, which coincides with the Omicron outbreak driven deaths. For an age-specific look at deaths rates see here (best viewed with Google Chrome):

<https://www.stats.govt.nz/experimental/covid-19-data-portal?tab=Health&category=Total%20death%20rates>

Thanks  
Cheriyse

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**From:** Pubudu Senanayake

**Sent:** Monday, 15 August 2022 9:54 PM

**To:** Cheriye Hope <Cheriye.Hope@health.govt.nz>; Fiona Callaghan <Fiona.Callaghan@health.govt.nz>; Antoinette Righarts <Antoinette.Righarts@health.govt.nz>

**Subject:** RE: Excess mortality

Kia ora Cheriye,

Apologies, COP ended up being a bit later than I anticipated. The only point of concern for me is that the graph I'm attaching (and the one I attached before) isn't published anywhere. It's constructed using the rates etc that are published, and technically anyone can reconstruct them – but we haven't done that construction publicly. Would MoH be comfortable removing the words "from Statistics New Zealand" from the reply? Otherwise I could try and get sign off for the graph this week to say it's from Stats NZ.

I've embellished your paragraph here – hope that's ok!

Throughout 2020 and 2021 New Zealand experienced deficit deaths (that is fewer deaths than expected, had the pre-pandemic trends continued). While New Zealand is currently observing excess deaths in 2022 (that is more deaths than expected, had the pre-pandemic trends continued), I can assure you that this is not due to the rollout of booster vaccines, and that receiving a first or second booster dose does not increase a person's risk of mortality.

It is important to note that there are many factors that need to be accounted for when analysing excess mortality, such as population changes and other age effects. Because of this reason demographers (experts in population dynamics) always deal with and construct models using death rates (deaths per population). Comparisons of death counts directly without accounting for changes in rates will almost always lead to inaccurate assessments of excess mortality since population changes are not uniform across age groups. For example, New Zealand's 80+ population is growing much faster than it did even a few years ago.

Another important consideration is that the population receiving boosters have a much higher risk of death from COVID-19, and the excess mortality observed is largely a result of deaths caused of COVID-19 circulating in the elderly communities.

For your information, I have attached a graph below from Statistics New Zealand that shows the observed weekly deaths compared with the expected deaths across the pandemic. Note the fewer than expected deaths in 2020, and to a smaller extent in 2021. Also note that the large increase in deaths above the average expectorations (indicated by the white line) coincides with the Omicron outbreak driven deaths. For an age-specific look at deaths rates see here (best viewed with Google Chrome): <https://www.stats.govt.nz/experimental/covid-19-data-portal?tab=Health&category=Total%20death%20rates>

Cheers,  
Pubudu

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**From:** Cheriye Hope <[Cheriye.Hope@health.govt.nz](mailto:Cheriye.Hope@health.govt.nz)>

**Sent:** Thursday, 11 August 2022 4:29 PM

**To:** Pubudu Senanayake <[Pubudu.Senanayake@stats.govt.nz](mailto:Pubudu.Senanayake@stats.govt.nz)>; Fiona Callaghan <[Fiona.Callaghan@health.govt.nz](mailto:Fiona.Callaghan@health.govt.nz)>;

Antoinette Righarts <[Antoinette.Righarts@health.govt.nz](mailto:Antoinette.Righarts@health.govt.nz)>

**Subject:** RE: Excess mortality

Kia ora Pubudu

That's no problem at all – this isn't urgent. It's a direct reply to the writer (not an OIA) so there isn't a set due date we are obliged to meet.

Based off what you said I have written the following paragraph if you wanted to review this and add / fix any of the info. If you could review this by the end of next week that would be great 😊

While New Zealand is currently observing a higher rate of excess deaths in 2022 compared to 2021, I can assure you that this is not due to the rollout of booster vaccines, and that receiving a first or second booster dose does not increase a person's risk of mortality. It is important to note that there are many other statistical factors that need to be accounted for when analysing excess mortality, such as population changes and other age effects. Another important consideration is that the population receiving boosters have a much higher risk of death from COVID-19, and the excess mortality observed is largely a result of this. For your information, I have attached a graph below from Statistics New Zealand that shows the observed weekly deaths compared with the expected deaths for 2022. Please note that the large increase in deaths coincides with the Omicron outbreak.

Thank you  
Cheriye

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**From:** Pubudu Senanayake <[Pubudu.Senanayake@stats.govt.nz](mailto:Pubudu.Senanayake@stats.govt.nz)>

**Sent:** Thursday, 11 August 2022 3:51 pm

**To:** Cheriye Hope <[Cheriye.Hope@health.govt.nz](mailto:Cheriye.Hope@health.govt.nz)>; Fiona Callaghan <[Fiona.Callaghan@health.govt.nz](mailto:Fiona.Callaghan@health.govt.nz)>; Antoinette Righarts <[Antoinette.Righarts@health.govt.nz](mailto:Antoinette.Righarts@health.govt.nz)>

**Subject:** RE: Excess mortality

Kia ora Cheriye,

What is the turn-around you need on this. I'm just reading through the professors paper ... and it's largely nonsense, but it's couched in a way that seems reasonable.

The main errors are that he's not accounting for population changes ... or other age effects. E.g., The fact that the population receiving boosters also has a much higher risk of death from COVID, and the excess mortality we are seeing is largely as a result of that. I've attached a figure I was putting together for something else, which shows the expected deaths, and observed deaths for 2022. (Note, the big increase in deaths coincides with the Omicron outbreak).

I'll extend that to include 2021 and write a brief note, but it may take me a little while since I have to sort out some notes for ministers.

Cheers,  
Pubudu

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**From:** Cheriye Hope <[Cheriye.Hope@health.govt.nz](mailto:Cheriye.Hope@health.govt.nz)>

**Sent:** Thursday, 11 August 2022 3:29 PM

**To:** Pubudu Senanayake <[Pubudu.Senanayake@stats.govt.nz](mailto:Pubudu.Senanayake@stats.govt.nz)>; Fiona Callaghan <[Fiona.Callaghan@health.govt.nz](mailto:Fiona.Callaghan@health.govt.nz)>;

Antoinette Righarts <[Antoinette.Righarts@health.govt.nz](mailto:Antoinette.Righarts@health.govt.nz)>

**Subject:** RE: Excess mortality

Thanks so much for your help Fiona & Antoinette

Pubudu I've attached the article with the professor's claims, but in summary they are saying that excess mortality in NZ has increased since December 2021, and since this is when the boosters were rolled out he believes it's due to the cumulative doses of COVID-19 vaccines given.

A member of the public (s 9(2)(a)), who is pro vaccine) has written in wanting to know if these statements are accurate before getting their second booster dose. So I'm just wanting to get a few lines to describe why the excess mortality we're seeing isn't the result of the boosters (the rest of the writer's questions are straightforward to answer).

Thanks very much

Ngā mihi nui,  
Cheriyse

**Cheriyse Hope** (she/her)  
**Senior Advisor | Kaitohutohu Tōmua**  
**Office of the Director, Advisory**  
**National Immunisation Programme**

Īmēra: [Cheriyse.hope@health.govt.nz](mailto:Cheriyse.hope@health.govt.nz)  
133 Molesworth Street, Wellington



Te Whatu Ora – Health New Zealand  
[TeWhatuOra.govt.nz](http://TeWhatuOra.govt.nz)

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**From:** Pubudu Senanayake <[Pubudu.Senanayake@stats.govt.nz](mailto:Pubudu.Senanayake@stats.govt.nz)>  
**Sent:** Thursday, 11 August 2022 3:14 pm  
**To:** Fiona Callaghan <[Fiona.Callaghan@health.govt.nz](mailto:Fiona.Callaghan@health.govt.nz)>; Cheriyse Hope <[Cheriyse.Hope@health.govt.nz](mailto:Cheriyse.Hope@health.govt.nz)>; Antoinette Righarts <[Antoinette.Righarts@health.govt.nz](mailto:Antoinette.Righarts@health.govt.nz)>  
**Subject:** RE: Excess mortality

No worries Fiona,

I'm just in the middle of writing a few paras about excess deaths in the AM to the PM – so probably similar thoughts.

What did the professor claim and how can I help?

Cheers,  
Pubudu

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**From:** Fiona Callaghan <[Fiona.Callaghan@health.govt.nz](mailto:Fiona.Callaghan@health.govt.nz)>  
**Sent:** Thursday, 11 August 2022 3:12 PM  
**To:** Cheriyse Hope <[Cheriyse.Hope@health.govt.nz](mailto:Cheriyse.Hope@health.govt.nz)>; Antoinette Righarts <[Antoinette.Righarts@health.govt.nz](mailto:Antoinette.Righarts@health.govt.nz)>  
**Cc:** Pubudu Senanayake <[Pubudu.Senanayake@stats.govt.nz](mailto:Pubudu.Senanayake@stats.govt.nz)>  
**Subject:** Excess mortality

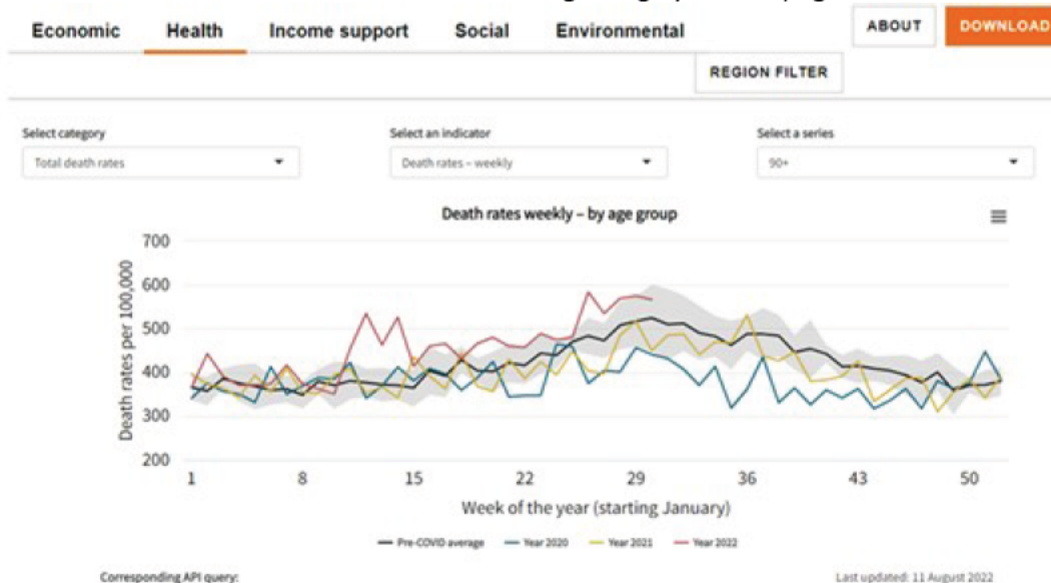
Kia ora Pubudu

Heads up that we have another online professor saying 'wrong things' about excess mortality -- and we could use your help reviewing some lines in response to him

FYI for Chariyse the online tool is

<https://www.stats.govt.nz/experimental/covid-19-data-portal/>

Select 'Health' and 'total death rates' and the age range you want, eg 90+



You can see in general, that 2020 seems to have fewer people dying than 'usual', 2021 has similar, and for some age groups (and not others) 2022 tends to have more than usual

Ngā mihi,

Dr Fiona Callaghan | [She/Her](#)

Lead Science Advisor  
Intelligence, Surveillance and Knowledge  
Public Health Agency  
Manatū Hauora - Ministry of Health



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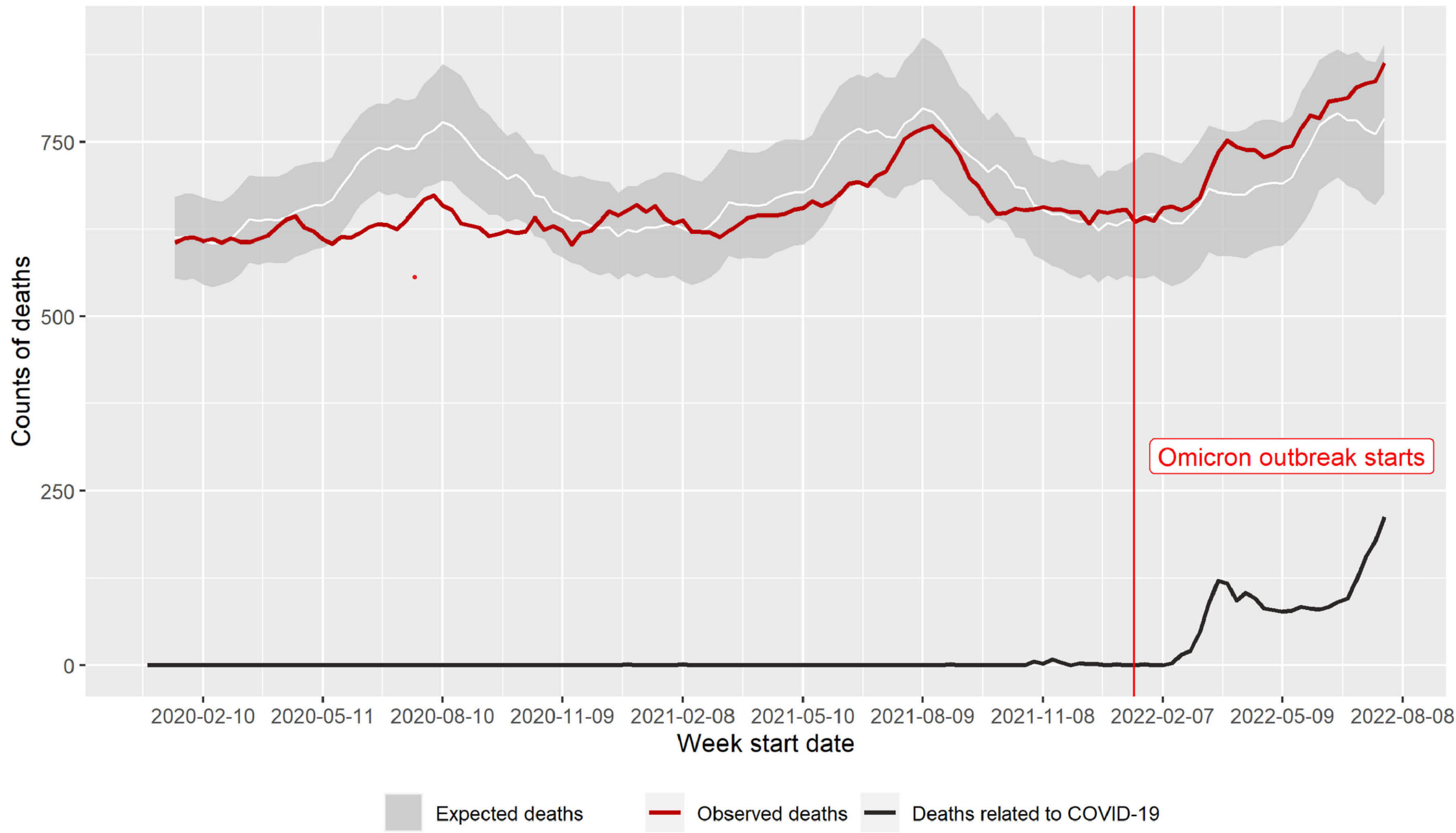
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# Rolling average of observed weekly deaths compared with expectations for 2020 - 2022



Data sources: DIA, MOH, Stats NZ. METHODS NOT PEER REVIEWED 2022-08-15



**From:** s 9(2)(a)

Sent: Wednesday, 13 July 2022 4:00 PM

To: A Verrall (MIN) <a.verrall@ministers.govt.nz>

Subject: (1630-2022)Covid - 19 Boosters & Issues as to the efficacy of the further Pfizer Booster Shot & Excess Mortality Issues.

Dear Dr Verrall,

You will see below, I forwarded an Email to s 9(2)(a), on the 6<sup>th</sup> July, raising some important implications associated with further Covid Boosters.

These concerns were reported in a recent paper by Professor John Gibson of Waikato University, a copy of the Paper is attached.

Regrettably, I have not had a reply, but we would really appreciate answers to the concerns raised.

My Wife and I have dutifully had the three Covid shots to date, have observer Mask Wearing and any other protocols required of us.

Surely, it is not too much to ask to have these important questions answered, so we can make an informed decision as to the benefits and possible risks of a second, or subsequent, Pfizer Covid Booster shot.

We would be grateful if you could have someone in the Health Depart respond to this matter as soon as possible.

Many Thanks

Kind Regards

s 9(2)(a)

Dear s 9(2)(a),

*I refer you to the attached Paper posted by Professor John Gibson from the University of Waikato.*

*My wife and I are both fully vaccinated, (including the First Booster Shot) against Covid -19 and being in our 70's and not, as yet, having contracted Covid, were intending to get our next Booster shot.*

*That is, before reading the rather disturbing Paper by Professor John Gibson, which provides more detailed information concerning subsequent Booster shots , the fact that these (Unlike Annual Flu Shots) are still the original Pfizer/BioNTech BTN 162b2 recipe.*

*There appear to be serious implications associated with ongoing Booster Shots both in terms of the human response, efficacy, and potential for rising excess mortality, particularly in the older cohort.*

*If Professor Gibson's concerns are genuine, why is this information not in the Public domain? Why are we still seeing various Media urging us to get our Boosters?*

*It would be invaluable if we could have honest, well researched answers to the issues raised, in particular:*

- 1. Is there any evidence that repeated Boosters "fixate" people's immune system to respond only to the Original Wuhan strain*
- 2. How effective is the second (and subsequent) Pfizer Booster Shot in protecting us against the more recent Variants?*
- 3. Are further Booster Shots likely to have fewer benefits and greater harms?*
- 4. Is it proven that one of these harms , particularly for the elderly, is likely to be an excess mortality rate?*

*We would really appreciate a comprehensive, fact based, response to the foregoing.*

*Many Thanks*

*Regards*

**s 9(2)(a)**

# COVID-19 Boosters and Rising Excess Mortality in New Zealand

[nzcpr.com/covid-19-boosters-and-rising-excess-mortality-in-new-zealand/](https://nzcpr.com/covid-19-boosters-and-rising-excess-mortality-in-new-zealand/)

July 3, 2022

Posted on By Professor John Gibson

*The Rollout of COVID-19 Booster Vaccines is Associated With Rising Excess Mortality in New Zealand*

One would not know it from the saturation advertising in New Zealand urging people to get booster doses of COVID-19 vaccines but the use of boosters for the general population has been controversial in many countries. In September 2021 an advisory panel of experts to the US Food and Drug Administration (FDA) voted 16-2 against widespread use of the boosters due to the lack of safety data and to doubts about the benefits of mass boosting.

After the Biden administration over-ruled that vote, and went ahead with a booster rollout for the general population (mandated in many cases) the top two officials in FDA's Office of Vaccines Research and Review resigned and published a critique that current evidence did not show a need for boosting in the general population. Even the World Health Organization argued that a vaccination strategy based on repeated booster doses of the original vaccine composition is unlikely to be appropriate or sustainable.

The boosters in New Zealand are just the original Pfizer/BioNTech BNT162b2 recipe, so this repeated use may fixate people's immune system to respond to the original Wuhan strain of SARS CoV-2 that is no longer circulating. Accumulated dosage also rises with booster use. In the initial randomized trials for mRNA vaccines, the Moderna shots that use a higher dose (100mg versus 30mg for Pfizer) had higher rates of serious adverse side-effects. So using the Pfizer boosters may cause this same dose-dependent vaccine adverse events process.

Thus, compared to the rollout of the original protocol doses, the booster rollout is likely to have fewer benefits and greater harms. It would therefore be expected that stronger evidence underpins mass use of boosters compared to the evidence used for the initial vaccine rollout. Yet perversely the evidence for using boosters is weaker, with large randomized trials either not being done or having various biases that inflate apparent vaccine efficacy.

Thus, overseas health professionals have called for booster vaccinations to be discontinued for safety reasons, and have suggested that coercive vaccine policies are doing more harm than good. None of these overseas debates appear to influence local public discussion. Even the data on which local public discussion are based are subject to doubts, as the Ministry of Health appear to be denominating their calculations of COVID-19 case and hospitalization rates with incorrect population estimates that will systematically overstate apparent vaccine efficacy. These same biases are found in health statistics overseas.

Despite these biases, and the limitations placed on local debate, at least one source of data is open to all of us, so that we can see with our own eyes and make up our own minds, rather than being told what to think. Statistics New Zealand publish weekly counts of deaths, for four age groups: 0-29 years, 30-59 years, 60-79 years, and 80 years and above. These data are available here, under the "health" tab (note that the data for recent weeks are not final).

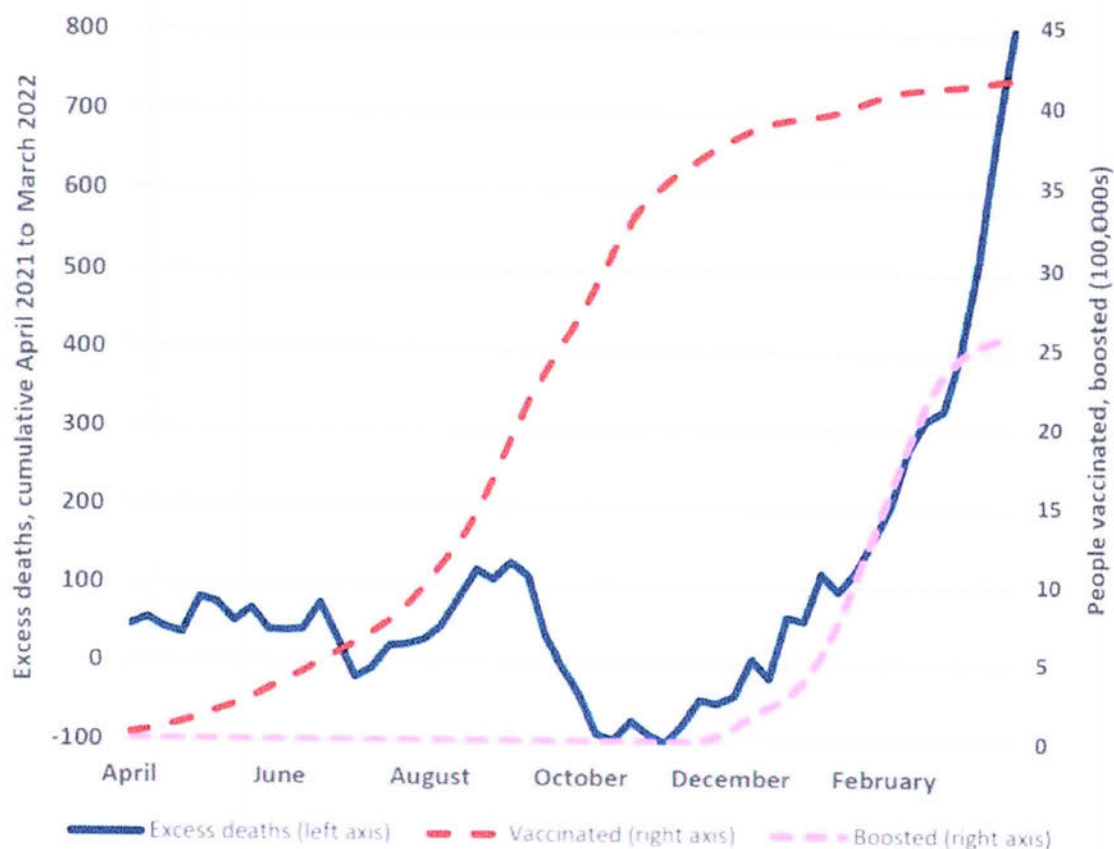
These data are for all-cause mortality, which should be the most reliable health indicator as there can be no argument that someone is dead or not. In contrast, data on COVID-19 deaths are bedevilled by classification issues: was the death *with* COVID-19 or *by* COVID-19. The other helpful feature of all-cause mortality is to let net effects of interventions be studied, taking account of unintended consequences. For example, if vaccines reduce deaths from COVID-19 but increase cardiovascular deaths, there may be no net reduction in mortality risk but a narrow fixation of health authorities on COVID-19 deaths would miss that failure.

The weekly deaths data allow 'excess mortality' to be calculated; the extent (either as a rate or as a number) by which actual deaths exceed expected deaths. Expected deaths can be calculated from weekly averages for a prior period. For example, public health researchers compared week-specific average death rates from 2015-19 to death rates in the same weeks in 2020, when arguing that lockdowns had no apparent adverse effects on mortality.

Averages do not allow for factors that change over time, yet in New Zealand population fluctuates a lot with migration. So expected deaths can also be calculated using regressions (a statistical procedure to adjust for multiple factors) to deal with various changing influences. Using this approach shows that for New Zealand in 2021-22, expected deaths peak at about 750 per week in late July, and have an annual low of about 610 in mid-February.

For the year from April 2021 to March 2022, covering the main phase of COVID-19 vaccine and booster rollouts, actual deaths and expected deaths moved closely together for the first eight months. Thereafter deaths deviated from the usual seasonal pattern; fluctuating around 650 per week until late February rather than falling to 610 per week as expected. March 2022 saw a sharp rise in deaths by about 100 per week over their expected number.

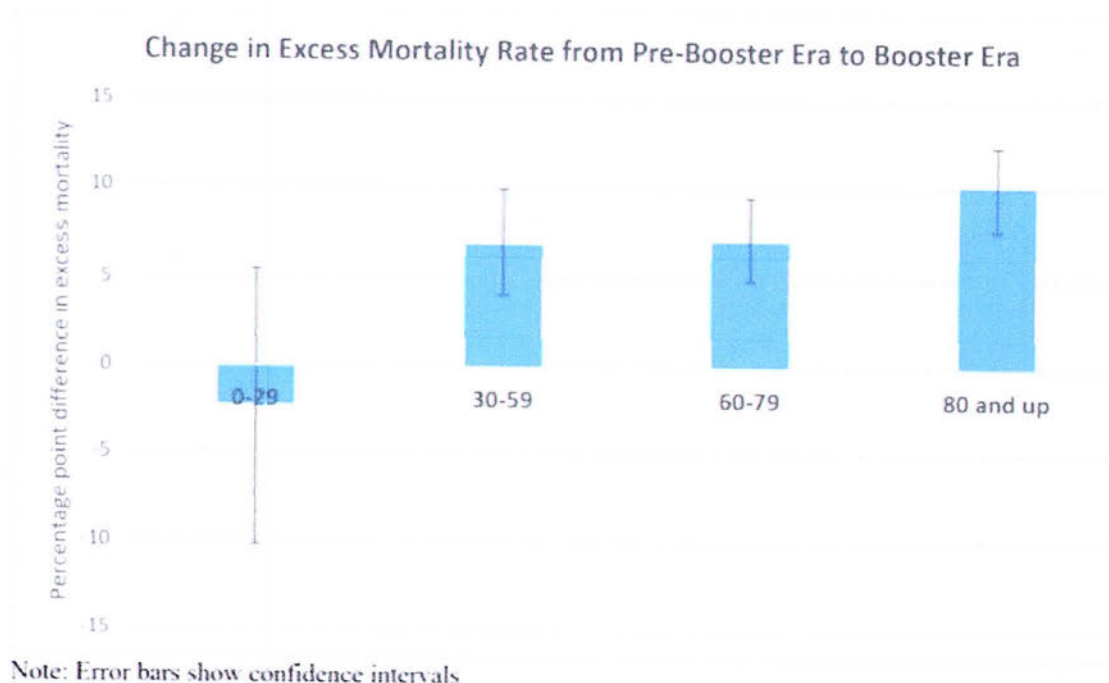
The excess deaths are cumulated and shown in the figure below. For the first eight months, cumulative totals fluctuated around 0 in a fairly narrow band (rarely exceeding  $\pm 100$ ). But from December cumulative excess deaths rose from -100 to over +300 by the end of February, and then rose more sharply, to +800 by the end of March. The sustained rise in excess mortality from December coincides with the booster rollout.



While the number of people receiving booster vaccines went from zero to just over 2 million, cumulative excess deaths went from -100 to +400. Prior to the booster rollout there had been no upward trend in excess deaths. This rise in excess deaths is unlikely to be due to Omicron, whose community spread was only detected in New Zealand at the end of January and given the lag from infection to death was unlikely to show up in increased deaths data until March.

The visual evidence in the figure is compelling but stronger evidence comes from statistically examining week-by-week changes. Series trending upwards together may seem to be related when they are not so if changes in two variables move together it is more convincing. For the booster vaccine rollout and excess deaths, using data on the changes in the series in the figure shows that there were 16 excess deaths per 100,000 booster doses. This same estimate is obtained when using a method that exploits exogenous variation (a method popularized by the winners of the Nobel prize in economics in 2021). Given that over 2.5 million booster doses have been administered, this amounts to over 400 excess deaths.

More evidence that rising excess mortality while boosters were rolled out is not a coincidence comes from the age-disaggregated data. The 0-29 years age group are mostly too young for boosters and so their excess mortality rate should not change between the booster era and the pre-booster era. In contrast, the other three age-groups were all eligible for (or mandated to have) boosters. The elderly were some of the first groups to be originally vaccinated and so have more elapsed time to be eligible for boosters. To the extent that they have a higher rate of booster usage they would therefore be predicted to see the biggest rise in excess mortality.



Compared to the pre-booster era (April to November) the excess mortality rate for the 80 and over group was 10 percentage points higher in the booster era (December 2021 onwards). For the 30-59 and 60-79 age groups, excess mortality rates rose seven percentage points as boosters rolled out. Yet there is no rise in excess deaths for the youngest age group. In other words, age groups most likely to use boosters show large rises in excess deaths after boosters are rolled out while the age group least likely to use boosters had no rise in excess deaths.

Alternative explanations need to account for two patterns in the empirical evidence: a sharp rise in excess mortality from the time that the booster rollout began, which is concentrated in the age groups eligible for boosters but not at all apparent in the age group mostly ineligible.

There are also other sources of evidence if our health authorities could be motivated to do a proper job of safety monitoring (and parroting the CDC and FDA does not count, given the failure of those agencies to protect consumers). The currently passive monitoring of vaccine adverse events relies upon spontaneous reporting and with the saturation advertising message of 'safe and effective' some people who suffered adverse events likely did not connect them to the vaccines. There are several active surveillance approaches to studying adverse events that could instead be used.

More broadly, a comprehensive cost-benefit analysis of the COVID-19 booster rollout should be conducted. Independent cost-benefit studies for the earlier interventions, like lockdowns, show that these did more harm than good. The excess mortality associated with the booster rollout that is highlighted in this analysis should be a key part of any future cost-benefit analysis of decisions about using COVID-19 booster vaccines for the general public.

*Professor Gibson's newly published working paper can be read in full [HERE](#) or [HERE](#).*