A Critique of the Report by NCIRS and NSW Health into the NSW SARS-CoV-2 Delta Outbreak

(16 June 2021 to 07 October 2021)

If the report by NCIRS and NSW Health
was presented by a business or listed company
the authors, senior managers, and company directors would be
investigated under Section 1041E
of the Australian Corporations Act 2001.
The report would be withdrawn and examined as evidence.

<u>Note</u>: We certainly make NO allegations, assertions and/or conclusions that the authors at NCIRS or NSW Health in any way acted improperly. We are simply critiquing comparing and contrasting.

A Concerned Citizen

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Introduction and Summary

Dear reader,

"In the peak fortnight of the [delta] outbreak (25 August to 7 September), the case rate among 2-dose vaccinated people was 49.5 per 100,000 whilst in unvaccinated people it was 561 per 100,000; a more than 10-fold difference.

Source. *IN FOCUS. Vaccination among COVID-19 cases in the NSW Delta outbreak.*
Reporting period: 16 June to 7 October 202
NCIRS and NSW Department of Health

Sadly, this statement is **entirely** false and **not** supported by any **credible** public data.

As is much of the report in which it is contained.

In this paper we'll methodically critique and analyse the findings and conclusions made by the National Centre for Immunisation Research and Surveillance (NCIRS) and the NSW Department of Health in their report on the NSW COVID-19 Delta variant outbreak.

In particular we'll fact check the following three **egregious** and **misleading** falsehoods contained in their report.

Falsehood 1
Of 61,800 COVID-19 cases, the vast majority [63.1%] were unvaccinated.

Reality 1
This Falsehood is based on two Omissions.

1. Omission 1. Unvaccinated cases were over inflated by those that were partially vaccinated, contrary to peer-reviewed findings and the fundamentals of immunology and virology.
2. Omission 2. The number and proportion of unvaccinated cases simply mirrored the level of vaccination in the broader community.

Simply stated, the vast majority of NSW cases were unvaccinated because the vast majority of the NSW population was unvaccinated!

Falsehood 2
The vast majority of COVID-19 cases, and cases with more severe disease (classified as those hospitalised, admitted to ICU or who died) were not vaccinated.

Reality 2
We've dealt with the overinflation of unvaccinated cases in Falsehood 1. The rest of Falsehood 2 attempts to show that:

1. Fiction 1. The reduction in risk, for the same Pfizer (BNT162b2) gene therapy against the same Delta variant, is (a) 4,000 times more effective against hospitalisation, and (b) 12,000 times more effective against death when deployed in NSW than when deployed in Israel. This is simply not believable.

2. Fiction 2. Vaccination reduces cases within the elderly.

   In reality for each age group as vaccination levels increased, the percentage of cases that were vaccinated also increased. This is the antithesis of the crucial role of a vaccine, i.e. to control virus propagation.

3. Fiction 3. Vaccination altered the trajectory of infections and cases.

   In reality the curve of infections and cases broke and fell significantly before vaccination levels had reached any meaningful level.

   And the fall in the infections curve mirrored the rise in the curve. Causal analysis shows no link between vaccination level and reduction in cases.

4. Fiction 4. Vaccination altered the trajectory of hospitalisations.

   In reality the curve of hospital load broke and fell significantly before vaccination levels had reached any meaningful level.

   And the fall in the curve of hospital load mirrored the rise in the curve. Causal analysis shows no link between vaccination level and reduction in hospitalisations.

5. Fiction 5. Vaccination altered the trajectory of daily deaths.

   In reality the curve of daily deaths broke and fell significantly before vaccination levels had reached any meaningful level.

   And the fall in the curve of daily deaths mirrored the rise in the curve. Causal analysis shows no link between vaccination level and reduction in deaths.

6. Fiction 6. Vaccination conferred greater protections during the NSW Delta outbreak.

   In reality those fully vaccinated made up 5.7% of hospitalisations but 11.4% of deaths. And of those that were admitted to hospital, those that were fully vaccinated died at twice the rate of those not vaccinated (9.5% vs 4.5%).

   These statistics may be confounded by Simpson's Paradox, but without full transparency by NSW Health, we may never know.

7. Fiction 7. The Delta Variant is highly Virulent.

   The report openly admits that the average age of double vaccinated deaths was 82, two years higher than average life expectancy in Australia. And that the vast majority of double vaccinated deaths were in aged care facilities or suffered from comorbidities.

Simply stated, there is no evidence that vaccination altered the course of the NSW Delta outbreak. There is no evidence that vaccination provided greater protections.

And the case numbers, hospitalisations, and deaths for vaccinated and unvaccinated show an unbelievable risk reduction of (a) 4,000 time higher against hospitalisation, and (b) 12,000 times higher against death for the same Pfizer (BNT162b2) against the same Delta variant when deployed in NSW vs when deployed in Israel.

Falsehood 3

Unvaccinated Population Case Rate is 10 times Vaccinated.

Reality 3

This third falsehood is founded on four negligence's:

1. Negligence 1. The authors overinflated unvaccinated cases by carelessly assuming that 'unknown' vaccination in the Australian Immunisation Register (AIR) is always 'no' vaccination. This assumption was based on a sample size of **50** when a sample size of at least **600** was required.

2. Negligence 2. The authors overinflated unvaccinated cases by negligently assuming that 'unknown' vaccination in the Australian Immunisation Register (AIR) is always 'no' vaccination. This assumption failed to explore the clear systematic relationship (and associated data anomaly) between rising cases, vaccination rates and workloads at vaccination clinics, and delays caused by batch upload from vaccination sites into AIR.

3. Negligence 3. To calculate the rate of infection, the authors used an imprecise and opaque population size from the Australian Immunisation Register (AIR). The AIR is not the transparent, credible, and precise measure of population. That is the Australian Bureau of Statistics (ABS).

4. Negligence 4. The authors failed to take into account the distinction, and implications, of simply testing positive to an imprecise PCR-based test and actual symptomatic infection. In addition, the authors failed to take into account the impact of false positives per se. In particular, as a rigorous study by Cambridge University found that **84%** of '**positives**' are actually **false** positives. Finally the authors failed to take into account findings published in the Lancet that post-vaccination symptoms per se cannot be differentiated from COVID-19 with clinical robustness; thereby underestimating 'vaccinated' cases.

Simply stated, with certain assumptions that would unquestionably and significantly reduce the ratio, the actual unvaccinated case rate is certainly no more than 1.8 times the vaccinated case rate.

A sixfold over-estimation by the authors.

If the **Ministers** of NSW Health were to publish more granular data, a re-calculation without these assumptions, would certainly show the unvaccinated and vaccinated case rates to be statistically identical.

Clearly this would be at odds with the narrative being peddled, the need to stigmatise the unvaccinated, and the coercion to vaccinate.

Mandated Demands

If Mr Brad Hazzard and Ms Kerry Chant were serious about following the science, were in any way concerned about developing and deploying effective public health policy, and not simply stigmatising the unvaccinated (source), they would:

1. withdraw the report published by NCIRS and NSW Health,
2. ensure the authors are counselled on data misrepresentation and, if justified, malfeasance in public office, and
3. rewrite the report using independent researchers not funded directly or indirectly by 'big pharma'.

And if the main stream media actually cared about upholding their civil duty, and their special place in society and legal protections, they would investigate these egregious misrepresentations and demand answers of Hazzard and Chant.

In summary, it is abundantly clear that objectivity was not the driver of the NCIRS/NSW Health report, rather an opportunity to fit the numbers to the predetermined narrative.

Critique Distribution and NCIRS/NSW Health Report Authors

This critique has been **directly** distributed to **1,418** recipients in fields such as:

Academia – General, Academia – Medical, Bureaucracy – Gov, Bureaucracy – Medical, Commercial, Judiciary, Legal Practice, Media, Medical, Political Choice, Politicians, Private Individuals, Regulators - Civil Society, Regulators – Media, Regulators – Medical, Think Tanks, and Unions.

It has also been posted to several internet channels and websites.

The **authors** of the NCIRS and NSW Health report are:

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Falsehoods

The falsehoods contained in the report by NCIRS and NSW Health display a pattern of:

1. Distortion and confounding of case numbers;
2. Ignorance of vaccinology, immunology, and epidemiology; and
3. Ignorance of statistical methods and disciplines.

It's hard to believe that this combination and confluence of errors is by chance. A disinterested observer would likely conclude that it is a deliberate attempt to fit the numbers to the predetermined and desired narrative.

In this paper we critically examine these falsehoods and how they were constructed. And, with the data available, attempt to re-calculate and correct key measures and statistics.

Falsehood 1 – Majority of Cases Unvaccinated

> **"Of 61,800 COVID-19 cases, the vast majority [63.1%] were unvaccinated"**

This is a deeply destructive Falsehood as it was relied on by Ms Kerry Chant (NSW Chief Health Officer) in her Media Release of 08 November 2021 urging "people [to] come forward for vaccination as soon as possible" (source).

Falsehood 1 is deceptively and factually incorrect for two reasons:

Omission 1 – Overinflated Unvaccinated Case Numbers

Overinflated Unvaccinated Case Numbers. The report categorised 39,017 cases (i.e. 63.1% of all cases) as having received **no** doses of vaccine. This enabled the falsehood of "**vast majority**".

In reality only **28,927** cases (i.e. **46.8%** of all cases) were truly unvaccinated i.e. received **no** doses of vaccine.

The remaining 10,090 cases (i.e. **16.3%**) had received one or more doses, but were **arbitrarily** defined as **unvaccinated** because "the interval from receipt to onset of disease was too short to be potentially effective".

This statistical sleight of hand (i.e. fraud) is a classic example of sampling error called 'Survival Bias'; whereby the selection process of a trial favours certain individuals who made it past a certain obstacle or point in time and ignores the individuals who did not. And those who did not make it are hidden or re-classified.

In addition, vaccine protection (if any) does not magically happen at some **arbitrary fixed** and **uniform** period after injection.

If so, this makes the absurd assumption that the interaction between the vaccine and each individual is **exactly** the same irrespective of **age**, **medical** and **health** condition, and/or **previous exposure** to SARS-CoV-2 and/or similar corona viruses.

Vaccination effect, if any, happens on a variable distribution as evidenced below:

> *"Our analysis would suggest that the effectiveness of the Pfizer vaccine at least in this Israeli cohort increased gradually **day by day** from **about** day **14** till reaching a peak of around **90%** effectiveness on day **21** even **before** any **second** injection".* ([source](#))

Also, the methods and **assumptions** used to calculate vaccine efficacy will significantly impact **when** vaccine protection **appears** to occur:

> *"We **cannot** differentiate here between the possibility that the 1st dose is effective but only after three weeks, or that the vaccine is only protective following the 2nd dose of the vaccine. However, there is some preliminary evidence to support that the **single dose is effective after three weeks**."* ([source](#))

Finally, there is significant [evidence](#) of a rise in SARS-Cov-2 infection rates in the first 14 days after injection. While some of this evidence is open to interpretation, the overwhelming consistency of this evidence and the inability/refusal of medical bureaucracy and researchers to unequivocally explain this phenomenon is alarming.

Given all of the above an **objective** and **impartial** report would have separated out the **10,090** cases, with one or more doses, and not simply categorised them as "unvaccinated".

By arbitrarily defining "vaccinated" as 14 days after the second shot (refer page 6 of the NCIRS and [NSW Department of Health Report](#)), it is clear that the objective is to maximise the number of unvaccinated cases and reduce the number of vaccinated cases.

<u>Omission 2 – Unvaccinated Cases in line with Vaccine Coverage</u>

We'll now examine the actual number of unvaccinated cases (i.e. **28,927** being **46.1%** of all cases in the NSW Delta outbreak) in the context of vaccine roll-out and coverage.

a. Assuming **all** unvaccinated cases occurred at the **beginning** of the Delta outbreak, **28,927** unvaccinated cases would have accumulated by **05 Sept 2021**. On that date, **51.3%** of NSW residents 12+ had not even received the 'protection' of Dose 1 ([source](#)). Furthermore, on that date **70.5%** of NSW residents 12+ were **unvaccinated** ([source](#)) as defined by the authors at NCIRS and NSW Health.

In other words, **46.1%** of cases were **unvaccinated** in a population that was **51.3%** 'unprotected' by at least one dose and **70.5%** unvaccinated.

b. Assuming **all** unvaccinated cases occurred at the **end** of the Delta outbreak, **28,927** unvaccinated cases would have accumulated by **09 Sept 2021**. On that date, **47.9%** of NSW residents 12+ had not even received the 'protection' of Dose 1 ([source](#)). Furthermore, on that date **68.1%** of NSW residents 12+ were **unvaccinated** ([source](#)) as defined by the authors at NCIRS and NSW Health.

In other words, **46.1%** of cases were **unvaccinated** in a population that was **47.9%** 'unprotected' by at least one dose and **68.1%** unvaccinated.

So, in reality and contrary to Falsehood 1, during the Delta outbreak, the **vast majority** of cases were **unvaccinated** because the **large majority** of the population was also **unvaccinated**!

Falsehood 2 – Majority of Serious Consequences amongst Unvaccinated

> **"The vast majority of COVID-19 cases, and cases with more severe disease (classified as those hospitalised, admitted to ICU or who died) were not vaccinated"**

The assertion that "**The vast majority of COVID-19 cases were not vaccinated**" is refuted above. We'll now turn to the other elements of Falsehood 2.

Falsehood 2 is deceptively and factually misleading for **seven** reasons:

Fiction 1 – Vaccine Risk Reduction in NSW Unbelievably Higher than in Israel

The table below is based on figures given on page 5 of the report published by NCIRS and NSW Health.

NSW Delta Outbreak Reported Data			
Disease Outcome	Unvaccinated (a)	Fully Vaccinated (b)	Total (c) = (a)+(b)
Hospitalised	8,167	493	8,660
ICU	985	30	1,015
Deaths	365	47	412

Based on this data we calculated three metrics **Risk**, **Risk Difference**, and **Risk Difference Ratio**, as described and tabulated below:

	Risk (NSW Delta Outbreak)		Risk Difference (r1) - (r2)		Risk Difference Ratio
Disease Outcome	Unvaccinated r1 = (a)/(c)	Fully Vaccinated r2 = (b)/(c)	NSW Delta Outbreak (rd1)	Israel Peer-Reviewed Study (rd2)	Aus./Israel (rd1)/(rd2)
Hospitalised	94.3%	5.7%	0.89	0.00022	4,028
ICU	97.0%	3.0%	0.94	0.00032	2,940
Deaths	88.6%	11.4%	0.77	0.00006	12,864

> ➤ **Risk**. This is the risk of a disease outcome for unvaccinated and vaccinated populations during the NSW Delta outbreak.

> ➤ **Risk Difference**. For a given disease outcome this is simply the difference between *risk when vaccinated* and *risk when unvaccinated*. We calculated this for the NSW Delta outbreak and compared it to the peer-reviewed study of mass vaccination during the Delta outbreak in Israel (source).
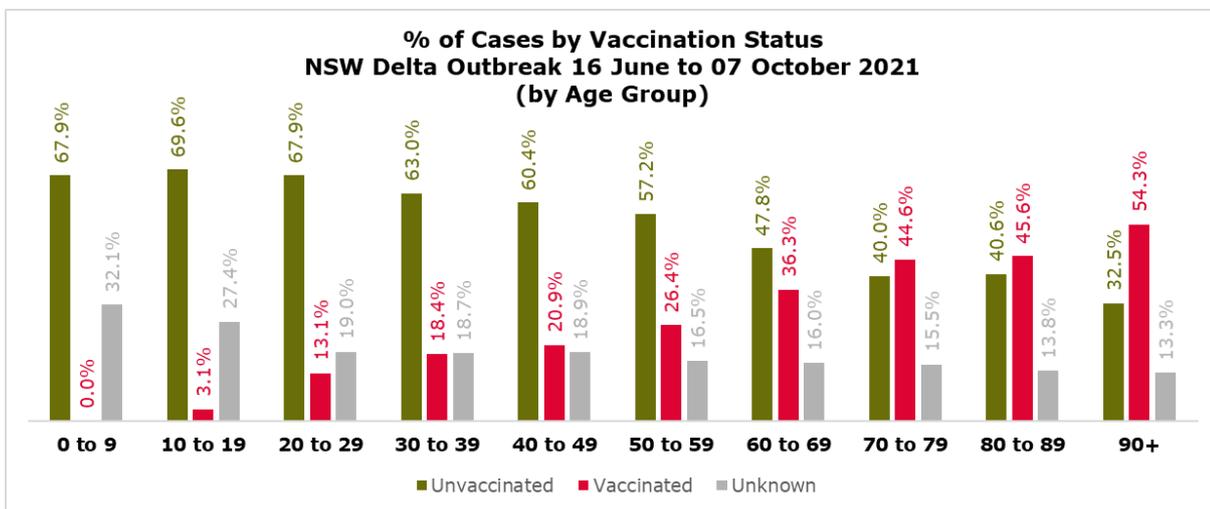
> ➢ **Risk Difference Ratio**. For each disease outcome, we compared risk difference in NSW vs Israel by calculating a simple ratio of the two.

The risk difference ratio indicates that the reduction in risk of the same Pfizer gene therapy (BNT162b2) against the same SARS-CoV-2 Delta variant is (a) **4,000** times more effective against hospitalisation and (b) **12,000** times more effective against death when deployed in NSW than when deployed in Israel!

We challenge the authors within NCIRS and the NSW Health, to publish a peer-reviewed paper of their findings; as it would set a global precedent for vaccine effectiveness.

Fiction 2 – Vaccination drove lower Case Numbers in Vaccinated Age Groups

Vaccination Levels did **not** drive lower case numbers. The chart below (based on data on page 3 of the report) shows that as vaccination levels increased, the percentage of vaccinated cases also increased!

% of Cases by Vaccination Status
NSW Delta Outbreak 16 June to 07 October 2021
(by Age Group)

Age Group	Unvaccinated	Vaccinated	Unknown
0 to 9	67.9%	0.0%	32.1%
10 to 19	69.6%	3.1%	27.4%
20 to 29	67.9%	13.1%	19.0%
30 to 39	63.0%	18.4%	18.7%
40 to 49	60.4%	20.9%	18.9%
50 to 59	57.2%	26.4%	16.5%
60 to 69	47.8%	36.3%	16.0%
70 to 79	40.0%	44.6%	15.5%
80 to 89	40.6%	45.6%	13.8%
90+	32.5%	54.3%	13.3%

The report makes no attempt to explain or highlight this worrying trend. Or to qualify the related assertions made in Falsehood 1.

This is the antithesis of what a vaccine is meant to accomplish. As emphasised by Professor Collignon in July 2021, one of the crucial roles of a vaccine is to **control disease propagation**:

> *"The key to this is vaccines, vaccines, and vaccines," he said. "It **decreases spread**, plus more importantly, it decreases the consequence of any spread."*

Fiction 3 – Vaccination altered the Trajectory of Infections

Vaccination levels did **NOT** alter the trajectory of cases during the Delta Outbreak.

The chart below shows Daily New Cases measured on the left-hand axis and Dose 2 (% of NSW population 12+) measured on the right-hand axis. (data source).
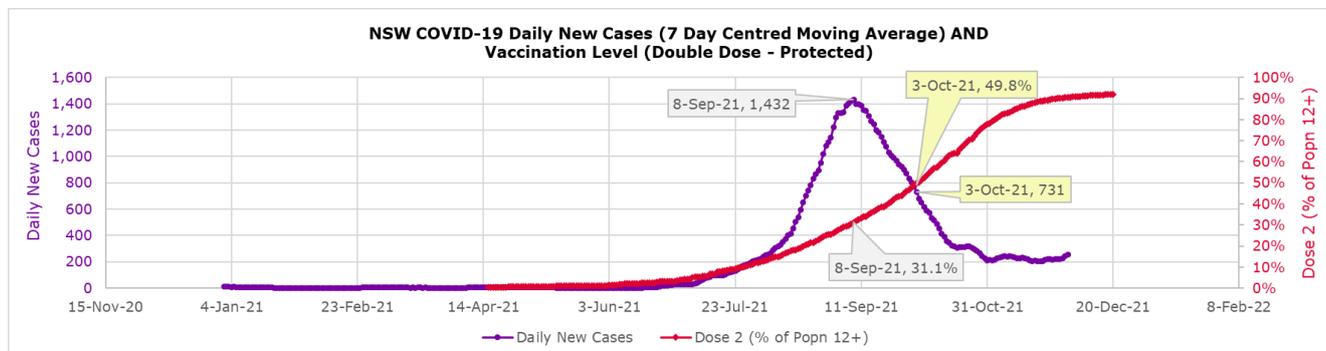
The peak of case numbers broke on **08 Sept 2021** at **1,432**. At that time only **31.1%** of NSW residents aged 12+ were **fully** vaccinated (source).

By **03 October 2021** cases had declined by just under **50%** to **731**, when **49.8%** of NSW residents aged 12+ were **fully** vaccinated (source).

It is impossible to believe that a vaccination level of **31%** would cause such a dramatic turnaround in cases on **08 Sept 2021**. Or that a vaccination level of **50%** would cause a **50%** drop in cases by **03 October 2021**.

If the vaccines were that effective, why is the NSW government placing the unvaccinated under house arrest until **95%** of NSW residents aged 12+ are fully vaccinated? And if they are so effective why has the vaccination target moved from 80%, to 90% to 95%, when in July 2021 the 'experts' were saying …

> *"Estimates on when Australia will reach herd immunity vary, but most experts agree it will be when around 70 to 80 per cent of the adult population is fully vaccinated (source)".*

Finally, if vaccinations **did** contribute to the decline in case numbers, the rate of **decline** in cases would be significantly **larger** than the rate of **increase**. This is not the case, as the 'purple hill' in the chart above is statistically symmetrical on either side of the peak.

Fiction 4 – Vaccination altered the Trajectory of Hospitalisations

Vaccination levels did **NOT** alter the trajectory of hospitalisations during the Delta Outbreak.

The chart below shows Hospitalised Cases (i.e. Hospital Load) measured on the left-hand axis and Dose 2 (% of NSW population 12+) measured on the right-hand axis. ([data source](#)).
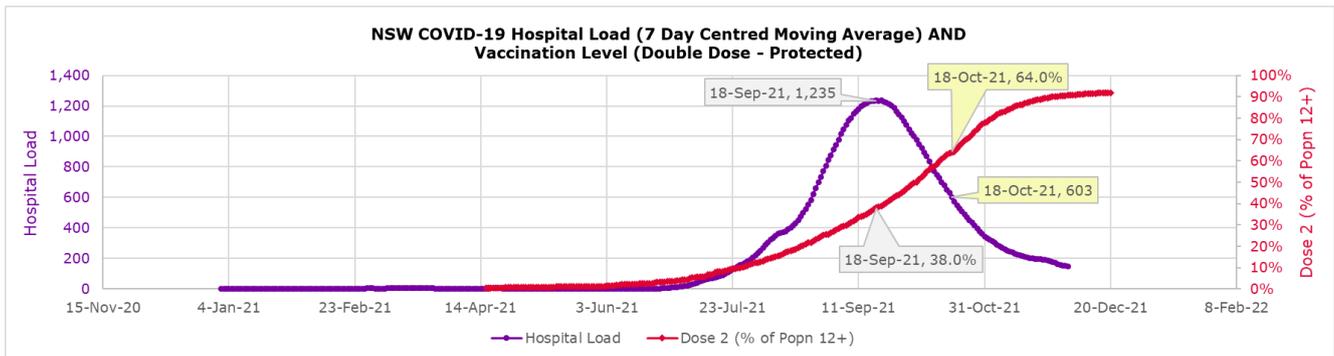
The peak of hospital load broke on **18 Sept 2021** at **1,235**. At that time only **38.0%** of NSW residents aged 12+ were **fully** vaccinated ([source](#)).

By **18 October 2021** hospital load had declined by just under **50%** to **603**, when **64%** of NSW residents aged 12+ were fully vaccinated ([source](#)).

It is impossible to believe that a vaccination level of **38%** would cause such a dramatic turnaround in hospital load on **18 Sept 2021**. Or that a vaccination level of **64%** would cause a **50%** drop in hospital load by **18 October 2021**.

If the vaccines were that effective, why is the NSW government placing the unvaccinated under house arrest until **95%** of NSW residents aged 12+ are fully vaccinated? And why has the vaccination target moved from 80%, to 90% to 95%.

Finally, if vaccinations did contribute to the decline in hospital load, the rate of **decline** in hospital load would be significantly **larger** than the rate of **increase**. This is not the case, as the 'purple hill' in the chart above is statistically symmetrical on either side of the peak.

Fiction 5 – Vaccination altered the Trajectory of Deaths

Vaccination levels did **NOT** alter the trajectory of deaths during the Delta Outbreak.

The chart below shows Daily Deaths measured on the left-hand axis and Dose 2 (% of NSW population 12+) measured on the right-hand axis. (data source).

The peak of Daily Deaths broke on **30 Sept 2021** at **11**. At that time only **46.9%** of NSW residents aged 12+ were **fully** vaccinated (source)

By **13 October 2021** daily deaths had declined by just under **50%** to **5**, when **60%** of NSW residents aged 12+ were fully vaccinated (source).

It is impossible to believe that a vaccination level of **47%** would cause such a dramatic turnaround in daily deaths on **30 Sept 2021**. Or that a vaccination level of **60%** would cause a **50%** drop in daily deaths by **13 October 2021**.
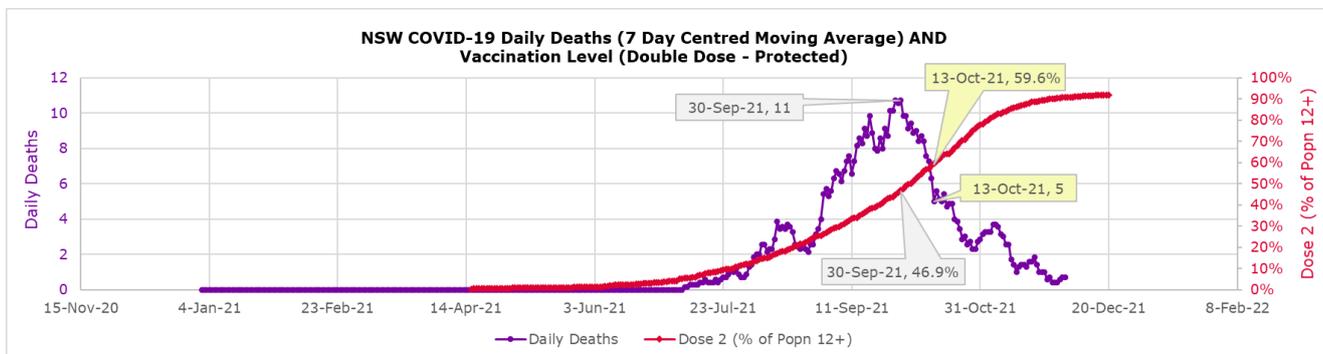
If the vaccines were that effective, why is the NSW government placing the unvaccinated under house arrest until **95%** of NSW residents aged 12+ are fully vaccinated? And why has the vaccination target moved from 80%, to 90% to 95%?

Finally, if vaccinations did contribute to the decline in deaths, the rate of **decline** in daily deaths would be significantly **larger** than the rate of **increase**. This is not the case, as the 'purple hill' in the chart above is statistically symmetrical on either side of the peak.

Fiction 6 – Vaccination conferred Greater Protections during NSW Delta outbreak

During the NSW Delta outbreak, the report's own data shows that vaccination did not confer any greater protection against serious disease outcomes.

According to page 1 of the report

> "There were 8,660 cases who were hospitalised, 1,015 admitted to ICU and 412 who died with COVID-19. Of these, 493 of the hospitalised, 30 of those admitted to ICU and 47 of those who died had received two doses of vaccine".

Tabulating these figures shows:

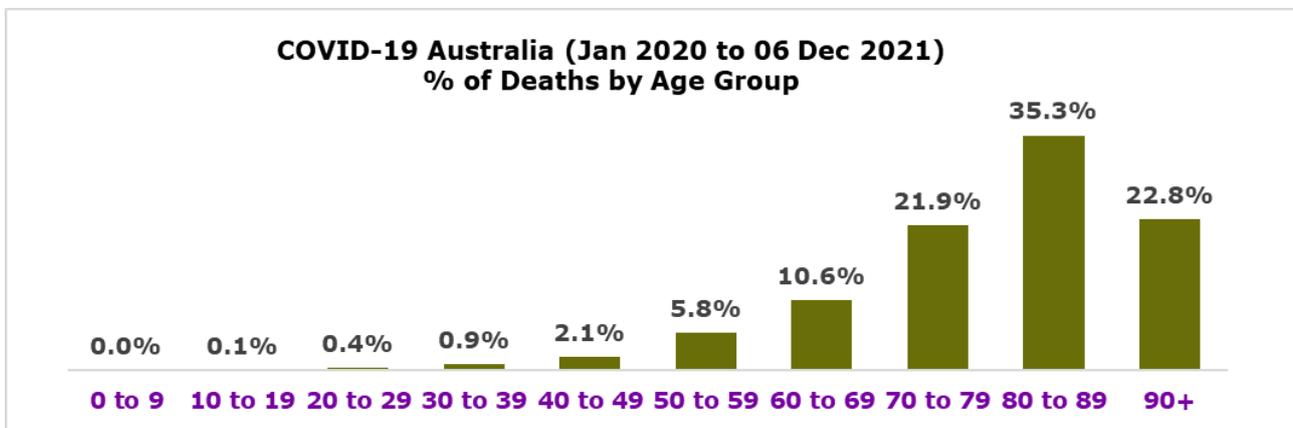| Disease Outcome	NSW Delta Outbreak Reported Data			Fully Vaccinated (% of Total)
	Unvaccinated (a)	Fully Vaccinated (b)	Total (c) = (a)+(b)	
Hospitalised	8,167	493	8,660	**5.7%**
ICU	985	30	1,015	3.0%
Deaths	365	47	412	**11.4%**
Hospitalisation Fatality Ratio	**4.5%**	**9.5%**		

a. **Pandemic of the Vaccinated**. Fully vaccinated make up **5.7%** of hospitalisations but **11.4%** of deaths; and

b. **Higher Risk of Death for Vaccinated.** The Hospitalisation Fatality Ratio (HFR) (i.e. deaths divide by hospitalisations) shows that of those ending up in hospital **4.5%** of the unvaccinated died, while twice that i.e. **9.5%** of the vaccinated died.

If the authors cared about transparency and effective public health policy, rather than stigmatising the unvaccinated, they would publish **all** hospitalisation and deaths data by **age**, by **reason for hospitalisation**, by **underlying health condition,** by **precise vaccination status,** by **source of infection,** and by **point of testing positive**.

Fiction 7 – The Delta Variant is Highly Virulent

The NSW outbreak of COVID-19 (SARS-CoV-2 Delta variant) has **not** been as lethal as propagandised and fear mongered.

As of **06 December 2021**, of the 2,026 Australian deaths 'attributed' to COVID19, the age distribution is shown in the chart below (source).

COVID-19 Australia (Jan 2020 to 06 Dec 2021)
% of Deaths by Age Group

Age Group	%
0 to 9	0.0%
10 to 19	0.1%
20 to 29	0.4%
30 to 39	0.9%
40 to 49	2.1%
50 to 59	5.8%
60 to 69	10.6%
70 to 79	21.9%
80 to 89	35.3%
90+	22.8%

Based on these statistics, just under **23%** of COVID19 deaths are aged **90** and above, approximately **58%** of deaths are aged **80** and above, and **80%** of deaths are aged **70** and above. The weighted average age of deaths attributed to COVID19 is **80**.

And this is all on the **assumption** that these deaths were **solely/primarily** caused by COVID19. In a previous report we showed that this cannot be the case.

By way of comparison, the average life expectancy in Australia is between **80** and **82** years.

According to page 5 of the report by NCIRS and NSW Department of Health, the average age of fully vaccinated deaths during the NSW Delta outbreak is **82**. It goes on to say:

> "*The **majority** of cases with very serious COVID-19, that is they were admitted to ICU or died with COVID-19, and who had **two doses** of vaccine were **elderly** and in **aged care** facilities or had significant underlying comorbidities*".

Which then begs the questions …

> '*If the **majority** of the **vulnerable**, **fully** vaccinated, still go on to die at an age **two** years **above** average life expectancy, precisely **what benefit** is vaccination conferring on this valuable group of NSW residents? Are the authors claiming that COVID-19 vaccination **extends** the life of the vulnerable elderly by on average **two** years?'*
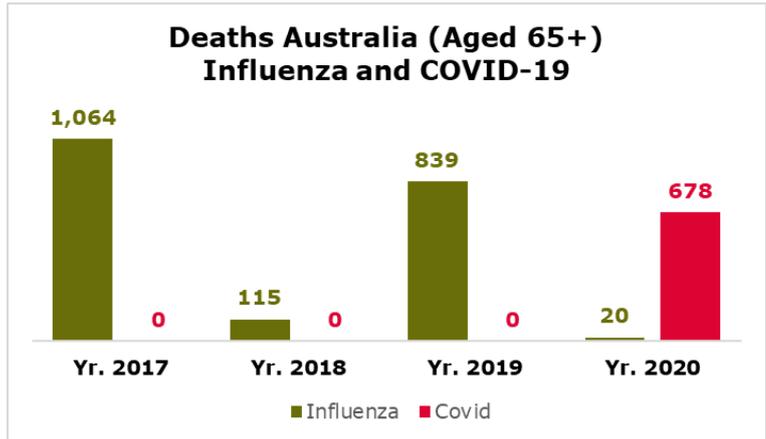
The report goes on to say

> "*Not all cases were hospitalised due to COVID-19 severity; in particular those at the extremes of age (i.e. elderly and children) may have been hospitalised for monitoring, infection control purposes, or social reasons*".

As previously, if the authors cared about transparency and effective public health policy, rather than stigmatising the unvaccinated, they would publish **all** hospitalisation and deaths data by **age**, by **reason for hospitalisation**, by **underlying health condition,** by **precise vaccination status,** by **source of infection,** and by **point of testing positive**.

Finally, with the **sudden disappearance** of influenza deaths amongst the elderly in 2020 ([source](#)), to maintain their credibility in managing public health, NCIRS and the NSW Department of Health must address the question

'***Are COVID-19 deaths of the elderly during the NSW Delta outbreak from or simply with COVID19?***'

Deaths Australia (Aged 65+) Influenza and COVID-19

	Influenza	Covid
Yr. 2017	1,064	0
Yr. 2018	115	0
Yr. 2019	839	0
Yr. 2020	20	678

Falsehood 3 – Unvaccinated Case Rate is 10 times Vaccinated

> *"In the peak fortnight, the case rate among 2-dose vaccinated people was 49.5 per 100,000 whilst in unvaccinated people it was 561 per 100,000; a more than 10-fold difference".*

These rates were based on "population and cases restricted to **12 years** and **older** resident in **Greater Sydney**" (refer page 6 of the report by NCIRS and NSW Department of Health).

This is a deeply misleading statement as it implies that case rates within NSW unvaccinated populations are several multiples higher than within vaccinated populations.

The statement is deeply and factually flawed for four reasons.

Negligence 1 – Overinflation of unvaccinated cases (Insufficient Sampling)

According to the authors (page 11 of the report):

> "*The vaccination status of cases was more likely to be **unknown** for the period **25 August** to **21 September**, when the **greatest** numbers of cases were diagnosed.*
>
> *Direct detailed manual review in the AIR of a random sample of cases (**n=50**) with unknown vaccination status found that **82%** did not have a COVID-19 vaccine. This **suggests** that the **majority** of the cases classified with **unknown** vaccination are likely to be **unvaccinated**".*

Falsehood 3 is based on an analysis of the population of greater Sydney i.e. **5,367,139** (source). It is also based on those aged 12+, of which the proportion is approximately **85%** (source). So the net population being examined in Falsehood 3 is equal to **4,562,068**.

Based on this net population, to be highly certain (i.e. 99% with a margin of error of 5%) that the majority (i.e. **82%**) of those with '**unknown**' vaccination status are actually **unvaccinated**, the authors would have had to examine the records of **392** individuals. This is basic statistical theory. So compared to the **50** sampled, this is statistical **under-sampling** by a factor of **eight** (i.e. 392/50).

Again based on basic statistical theory (i.e. for credible confidence intervals), with a random sample of only **50** records, the actual percentage of **truly unvaccinated** but with a record showing '**unknown**' can be as low as **68%**.

Given that the authors have **under-sampled by a factor of eight**, and that the actual percentage can be as low as **68%**, it is entirely disingenuous of the authors to make the

assertion that "the **majority** of the cases classified as **unknown** vaccination are likely to be **unvaccinated**".

In doing so the authors have negligently over-inflated unvaccinated cases; this is statistical fraud.

The statistically objective approach would have been to firstly **assume** a **50%** proportion i.e. 'unknown' is split evenly between unvaccinated and vaccinated. In which case, for statistical certainty, the authors would have had to review **664** records, i.e. the authors have **under-sampled** by a factor of **13**.

Negligence 2 – Overinflation of Unvaccinated Cases (Systematic Errors)

According to the authors (refer page 11 of the report)

> *"The vaccination **status** of cases was more likely to be **unknown** for the period **25 August** to **21 September**, when the **greatest** numbers of cases were diagnosed."*

An objective author would have explored this observation a little further; before jumping to the conclusion that the "majority of the cases classified with unknown vaccination are likely to be unvaccinated".

Here's our exploration.

For each fortnight, the chart below shows **Total Cases** and **Total Number of Dose 1** shots dispensed. Cleary there is a relationship.

As cases were rising and falling, the number of dose 1 shots being administered was following a similar trajectory. A clear indication of a pandemic of fear.
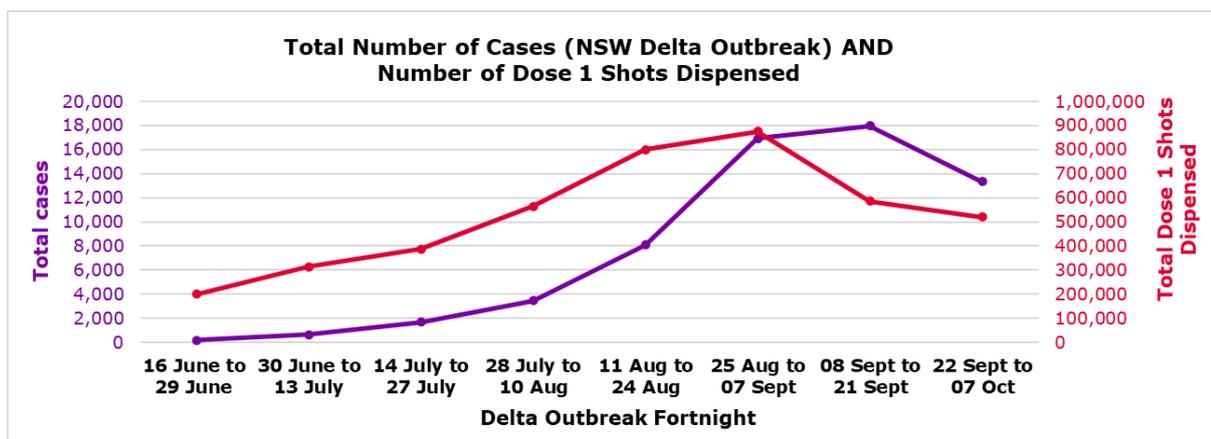
In addition, the chart below shows **Total Number of Dose 1** shots dispensed AND the **Percentage of Cases with Unknown Vaccination Status**. Once again, there is a clear relationship.

Total Number of Dose 1 Dispensed AND % of Cases with Unknown Vax Status
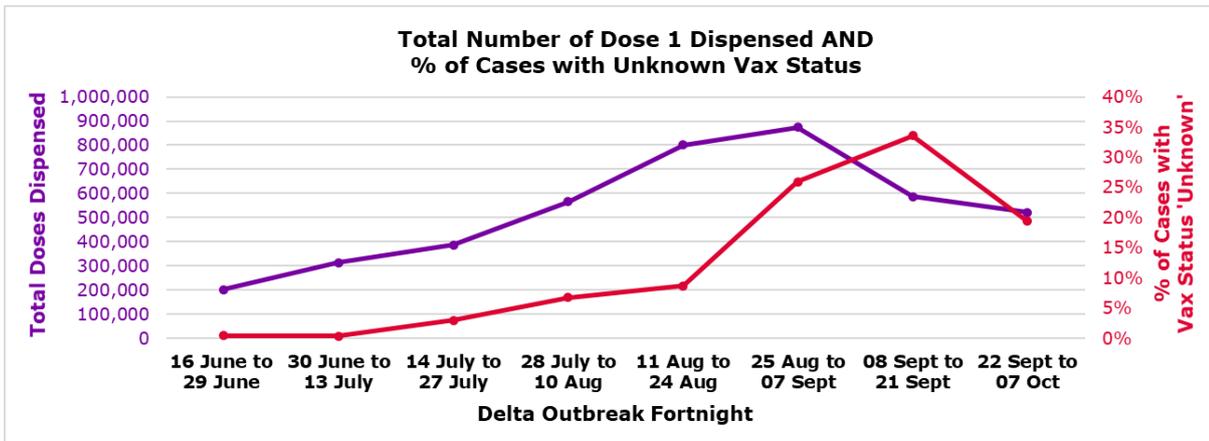
A further examination of the Australian Government (Services Australia) webpage on 'How to record and update immunisation details' reveals the following warning

> *Most practice management software batch uploads data to the AIR. Because of this there may be **delays in updating** the AIR when you record details using your software.*

Clearly what the charts above are showing is the delay between vaccine injection and data entry into the Australian Immunisation Register (AIR).

And that this delay rose and fell in proportion with the vaccination workload.

Hence, as vaccination rates started to fall, the delay became smaller, and the percentage of entries in AIR with an 'unknown' vaccination status also started to fall.

As such to draw the blanket conclusion that all cases with 'unknown' vaccination status are actually 'unvaccinated' is highly improper and inaccurate. It fails to take into account and/or explain this profound systematic anomaly in the data.

Negligence 3 – Using an Imprecise and Opaque Population Size

To calculate the rate of infection, the authors used a population denominator from the Australian Immunisation Register (AIR).

The AIR is **not** the **transparent**, **credible**, and **precise** measure of population. That is the Australian Bureau of Statistics (ABS).

The impact of this negligence will become clear in our recalculation of case rates below.

Negligence 4 – Ignoring Case Definition, False Positives, Post Vaccination Cases

Contrary to the accepted practice during previous epidemics, with COVID-19 health bureaucrats have treated a **single** positive result from a PCR-based test as **confirmation of infection**, **irrespective** of **signs**, **symptoms** and **exposure** (source).

This is based on a widespread belief that 'positive' results in these tests are highly reliable. However, evidence from external quality assessments and real-world data indicate a high enough false positive rate to make positive results highly unreliable over a broad range of scenarios (source).

The **unreliability** of PCR-based testing, and the **incidence** of **false positives**, is **higher** when community **prevalence** of the subject virus is **low**.

Hence, the most important action, negligently ignored by NSW Health, is to check 'positive' results with additional tests, in particular when prevalence is low (source).

When this was performed by Cambridge University, the results were alarming.

During the period 20 November 2020 to 21 February 2021, Cambridge University conducted a **rigorous** mass testing of **asymptomatic** COVID-19 students. The results were published in the British Medical Journal (source).

The testing was carried out using the 'pooling' technique (source), whereby each student took two samples, one from each nostril. The samples from the left nostrils of five students were pooled at the point of collection into a combined sample.

If the combined sample was negative, all students in that pool were cleared.

If the combined sample was positive, then the sample from the right nostril of each student in that positive pool was tested. In essence, any positive student was tested twice, first in the pooled sample and second in the individual sample.

The Cambridge University researchers found that **43** of **10,394** pools tested positive. And **36** of the **43** pools were **false positive** at the **second** testing.

So while the **population false positive** (i.e. 36/10,394) was small at **0.35%, 84%** (i.e. 36/84) of those **testing positive** were actually **false positives.**

In Cambridge during the period of testing the community prevalence of the SARS-CoV-2 virus was between 0.44% and 0.96% (source).

During the NSW Delta outbreak (16 June 2021 to 07 October 2021) there was a total of 62,309 cases (source) over a NSW population of 8,176,000 (source). So, at the very

worst, and by a significant margin, this gives a SARS-CoV-2 population incidence ratio of **0.8%**.

Assuming that the learnings and proportions from the Cambridge University study are largely transferable to NSW, it is highly likely that at least **80%** (i.e. 49,000 out of 62,000) of the **positive** cases in the **NSW Delta outbreak** were **false** positives.

In addition, a recent study, published by the Lancet, found that

> *"Post-vaccination symptoms per se cannot be differentiated from COVID-19 with clinical robustness, either using symptom profiles or machine-derived models."*

As such, it certain that a proportion of post-vaccination 'cases' have been undetected; and simply classified as 'vaccine effects'. This would to a certain degree under-estimate 'vaccinated cases'.

In their report it is inconceivable that the management team at NCIRS and the Ministers at NSW Health made no attempt to quantify, and understand the implications of:

a. the number of false positives during the NSW Delta outbreak; and

b. the number of post-vaccination cases incorrectly classified as vaccination effects.

Corrected Case Rate – Vaccinated vs Unvaccinated

So correcting for all the errors made throughout the report by NCIRS and NSW Health, we'll now calculate the actual population case rates of 'vaccinated' vs 'unvaccinated'; using the report's definition of 'fully vaccinated'.

Along the way we'll make a few assumptions which we'll explore later in this section.

We'll start by estimating the resident population of Greater Sydney aged 12 years plus.

Table 1. Resident Population Greater Sydney Aged 12 Plus		
	Population Value	**Source**
Population Greater Sydney	5,367,139	Source
% Of Popn Aged 12 Plus	85%	Source
Population Greater Sydney Aged 12 Plus	4,562,068	Calculated

Next we'll breakdown this population of Greater Sydney Aged 12 Plus, into unvaccinated and vaccinated populations; for the fortnight during which these case rates were calculated in the NCIRS and NSW health report.

Table 2. Vaccination Status - Greater Sydney Aged 12 Plus Midpoint of Fortnight 25 Aug to 07 Sept 2021 Fully Vaccinated = 14 Days after Dose 2			
	Unvaccinated	**Vaccinated**	
NSW Vaccination Status (Percentage at 01 Sept 2021)	73.1%	26.9%	Source
Greater Sydney Vaccination Status (Populations at 01 Sept 2021)	3,334,872	1,227,196	Calculated

Next, we'll estimate the number of cases and assume all were in ages 12 plus.

Table 3. SARS-CoV-2 Cases Greater Sydney 25 Aug to 07 Sept 2021		
	Cases	**Source**
Number of Cases in NSW	16,920	Source
% Of NSW Cases in Greater Sydney	50%	Source
Total Number of Cases Greater Sydney	8,460	Calculated

Next, we'll breakdown these 8,460 cases by **vaccination status** using the percentages given on page two of the report by NCIRS and NSW Health.

Table 4. SARS-CoV-2 Cases by Vaccination Status NSW Delta Outbreak 16 June to 07 October 2021		
Vaccination Status	**% Of Cases**	**Number of Cases**
None	46.8%	3,960
Interim	16.3%	1,381
One	9.2%	776
Two	6.0%	511
Unknown	21.6%	1,831
Total		**8,460**

Next, we'll assume that the percentage of cases with **unknown** vaccination status in the period 25 Aug to 07 Sept 2021 is split **evenly** between **vaccinated** and **unvaccinated**.

Note: This is a more reasonable assumption given (a) the report's under-sampling and (b) the lags between vaccine injection and AIR registration, exposed above.

So the more credible cases rates (i.e. 'cases by vaccination status' in Table 4 divided by 'relevant population' in Table 2) are as shown below:

Table 5. SARS-CoV-2 Population Infection Rates (per 100k) by Vaccination Status NSW Delta Outbreak 25 Aug to 07 Sept 2021		
Vaccination Status	**Claimed Rate**	**Corrected Rate**
Unvaccinated (Cases included = None+Interim+One+50% of unknown)	561.0	210.9
Vaccinated (Cases included = Two+50% of unknown)	49.5	116.3
Case Rate Ratio (Unvaccinated/Vaccinated)	**11.3**	**1.8**

Based on the calculations above, the report by NCIRS and NSW Health has significantly over-estimated the ratio of unvaccinated to vaccinated case rates.

The true ratio is **1.8** not **11.3**. As such the report is incorrect by at least a factor of **six**.

And even this ratio of **1.8** is likely **over-estimated**; as in our calculations we made three simplifying assumptions:

1. **Equivalent Testing Rates**. We assumed that testing rates are the same between vaccinated and unvaccinated populations. And, due to a false sense of security ([source](#)), it is more likely that testing rates are lower in vaccinated populations. As such **vaccinated** cases are more likely to be **under-detected** leading to an **under-estimation** of **vaccinated** case rate.

2. **Equivalent Exposure Risk**. Given that the vaccination program started with the relatively less mobile elderly, it is likely that at the time of the NSW Delta outbreak exposure risk was slightly lower for the vaccinated. This would tend to **reduce vaccinated** case numbers and again **under-estimate** vaccinated case rates.

3. **Unvaccinated Includes Partially and Interim Vaccinated**. In our rate calculations, we (reluctantly) categorised partially and interim vaccinees as unvaccinated; simply because public data of vaccination status at a more granular level is not available. Again, this would tend to **over-estimate unvaccinated** population case rates.

Collectively, these three simplifying assumptions would tend to **decrease** the **unvaccinated case rate** for NSW during the Delta outbreak.

If the Ministers of NSW Health were to publish more granular data, a re-calculation without these assumptions would certainly show the unvaccinated and vaccinated case rates to be statistically identical.

Clearly this would be at odds with the narrative being peddled, the need to stigmatise the unvaccinated, and the coercion to vaccinate.