

# **PARLIAMENTARY INQUIRY QUESTION ON NOTICE**

**Department of Health**

**Senate Select Committee on COVID-19**

**Inquiry into Australian Government's response to the COVID-19 pandemic**

**2 February 2022**

**PDR Number: IQ22-000020**

**Current statistics of COVID cases by state**

**Spoken**

**Hansard page number: 37**

**Senator: Rex Patrick**

**Question:**

Senator PATRICK: Could you give us some statistics on the people who are being admitted to hospital and the [inaudible] COVID that are fully vaccinated. I guess we're talking about since the population became vaccinated. Can you give a brief outline of that, to give people some feel for whether or not the statistics show that the vaccine has been helpful.

Prof. Kelly: [...] In terms of what we are seeing as to full vaccination versus a lack of full vaccination: unfortunately, that's another part of the data coming from the states that is actually delayed. So I do not have full information on that at the moment. What we have noted, at least—this is in relation to ICU and hospitalisation and, indeed, to cases—is that, in terms of cases, in previous waves, definitely two doses of the vaccine protected against people becoming infected, and so the majority of people that were infected were because of a lack of full vaccination, and that became even more the case with hospitalisation and ICU admission. With omicron, that was not as effective. We noted that at least for the two vaccines, and that's why the booster or third dose is so important in relation to that. But, again, I don't have complete information on all of the hospitalisations or ICU, and we've talked about deaths before, in terms of—

Dr Murphy: But I think some of the states and territories have released information on ICU, ventilation and admission, and I think there's a high proportion of unvaccinated people in those ICU populations. As Professor Kelly said, the states aren't giving us all this information, but some of them have released pretty impressive information. I don't know whether you—  
Senator PATRICK: Just very quickly, Chair [inaudible] on notice, the difficulty [inaudible] the state doing something different, I wonder if you can, on notice, at least get some consolidated data to the committee?

Prof. Kelly: Definitely, Senator. The issue is keeping up with the large numbers. That is the honest issue, and I don't blame my colleagues in the states for struggling with some of the more detailed information. They are giving us timely information on numbers of cases, age and so forth, so we have good information on that in both total cases and at the more severe end of the spectrum. That's important.

**Answer:**

Breakthrough infections are expected among people who are fully vaccinated.

A breakthrough infection is when someone tests positive for COVID after being fully vaccinated, regardless of symptoms. It is expected that the level of 'breakthrough infections', including those that experience severe illness (i.e., hospitalisation, ICU admission or death) among those vaccinated will rise as vaccination coverage increases. This does not mean the vaccines are not working.

As seen globally, people who are fully vaccinated are less likely to be infected if exposed and, more importantly, far less likely to develop severe disease than those who are unvaccinated.

The National Interoperable Notifiable Diseases Surveillance System (NINDSS) has fields to capture data on the hospitalisation and vaccination status of COVID-19 cases. Jurisdictions have varying processes in place to collect these data, with some data captured through routine linkage with existing datasets, and other data reliant on extensive case interview.

Jurisdictions are at various stages with linkage of notification data to available registers and data sources to improve the timeliness and completeness of vaccination and hospitalisation data for current reporting and analysis needs.

Additionally, the depth and quality of data has declined recently with the sudden and significant increase in cases since December 2021. With the recent surge in reported case numbers, the capacity to consistently conduct in-depth case interviews has decreased. Therefore, at this stage, data completeness for these fields in the NINDSS are not considered reliable.

On 15 February 2022, the Chief Medical Officer Professor Paul Kelly wrote to the jurisdictions requesting these data.

Some enhanced information regarding vaccination status and hospitalisation rates is published by individual states and territories. For example, information on the vaccination status of COVID-19 cases is published by NSW. This information provides a good indication of the relationship between vaccination and relative severity of illness, noting the high levels of disease transmission experienced in NSW during both the Delta and Omicron waves.

In the peak fortnight of the Delta outbreak in NSW (25 August to 7 September 2021), the COVID-19 case rate among two-dose vaccinated people was 49.5 per 100,000 while in unvaccinated people it was 561 per 100,000, a more than 10-fold difference. The rates of COVID-19 ICU admissions or deaths peaked in the fortnight 8 September to 21 September at 0.9 per 100,000 in two-dose vaccinated people compared to 15.6 per 100,000 in unvaccinated people, a greater than 16-fold difference. The full report published by NSW Health is available here: [www.health.nsw.gov.au/Infectious/covid-19/Documents/in-focus/covid-19-](http://www.health.nsw.gov.au/Infectious/covid-19/Documents/in-focus/covid-19-).

NSW Health also routinely reports information on clinical severity by vaccination status in their COVID-19 Surveillance Reports. As per the most recent report, for cases reported between 26 November 2021 to 15 January 2022 (largely reflective of the Omicron wave), the proportion of cases with severe health outcomes and death was higher among those who were not vaccinated or who had not completed the recommended vaccine schedule, compared with fully vaccinated people, across all age groups. NSW Health Weekly Surveillance Reports are available here: [www.health.nsw.gov.au/Infectious/covid-19/Pages/weekly-reports.aspx](http://www.health.nsw.gov.au/Infectious/covid-19/Pages/weekly-reports.aspx).