

Deaths from respiratory disease low in August: Actuaries Institute

28 November 2021

- Deaths from respiratory disease were down 28% in August.
- There were 79 doctor-certified COVID-19 deaths during the month.
- Deaths from all other causes were close-to-expected.
- In the 8 months to August 31, respiratory deaths were down 15% but deaths from other causes were higher.

Australia continued to see significantly lower deaths from flu and other respiratory illnesses in the month of August 2021, a trend that began with the COVID-19 pandemic.

Actuaries Institute analysis of the latest ABS data, for the month of August 2021, shows a fall of 28% in the number of deaths from all respiratory diseases and a fall of 15% over the year.

The modelling also shows that in the three months to August 2021, respiratory deaths were not as low as for the same period in 2020.

The Actuaries Institute modelling is based on monthly ABS data for doctor-certified deaths. It excludes about 10% of deaths, which are certified by the coroner.

The model measures actual deaths against predicted deaths, adjusted as the population ages and grows, and allowing for trends in mortality improvement. These adjustments are important because a simple comparison with historical averages can be misleading, said Jennifer Lang, Convenor of the Australian Actuaries Institute's COVID-19 Working Group.

The Actuaries' analysis shows around 1,300 deaths in August from all respiratory disease, 28% (500 deaths) lower than the expected number of around 1,800.

Over the year to August 31, there have been 8,700 respiratory deaths. This is 15% lower than the 10,200 predicted deaths from all respiratory disease.

The actuarial model predicts August as the month with the highest number of deaths for the calendar year. However, in August 2021, deaths from all forms of respiratory disease are showing very little to no seasonal increase.

There were 79 doctor-certified deaths in August from COVID-19. This compares to 82 officially recorded COVID-19 deaths in the month, suggesting that three deaths were referred to the coroner.

Deaths from heart disease were again higher-than-expected in August (up 4% at 1,270 deaths), noting that the predicted values allow for continued strong mortality improvement in this cause.

Deaths from dementia were significantly lower-than-expected in August, (down 8%, 1,450 deaths), possibly related to lower than usual levels of respiratory disease in the community.

Deaths from other causes, i.e. those not explicitly reported on by the ABS, were again higher than expected (up 3%). In the year to date, there have been 1,400 more deaths than predicted from 'other causes'. The ABS has a program of work underway to investigate the reasons for this increase, Ms Lang said.

In the year to date, deaths from all causes combined were close to predicted (only 100 higher).



“Again, it’s good to see fewer people are dying from respiratory diseases and perhaps this is the result of public health measures instituted during the COVID-19 lockdown,” Ms Lang said.

Actuaries Institute Chief Executive Elayne Grace said the value of the actuaries’ adjusted data and complex modelling is that a more complete picture of the impact of the measures taken to restrict COVID-19 can be seen. This will continue to be important as state and international borders open.

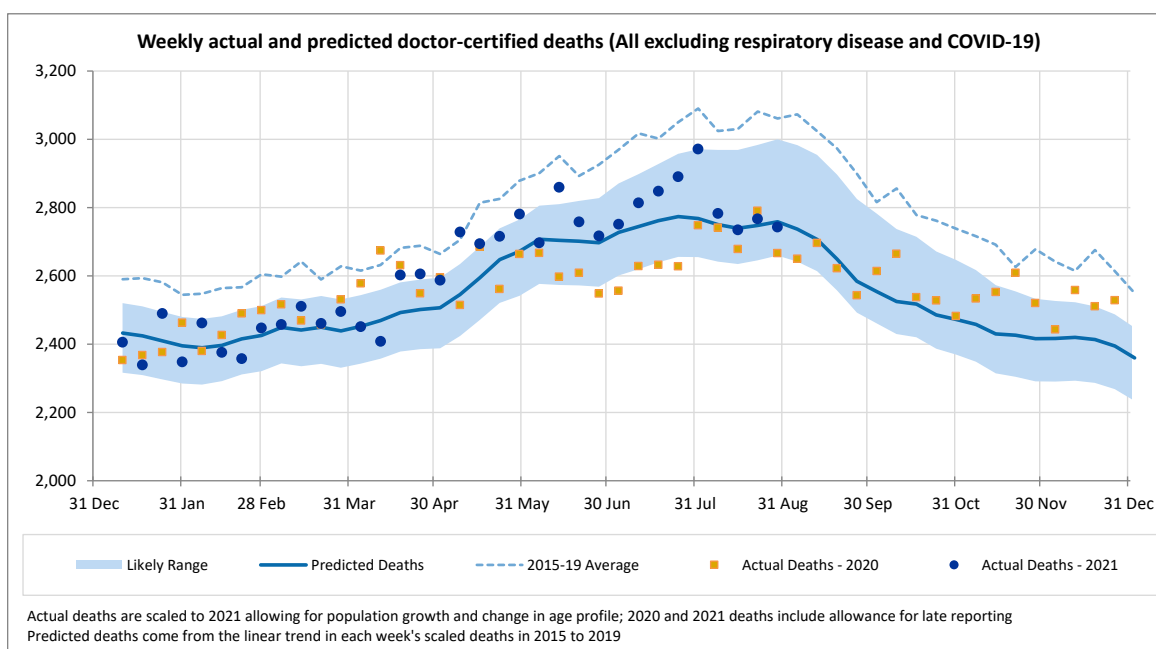
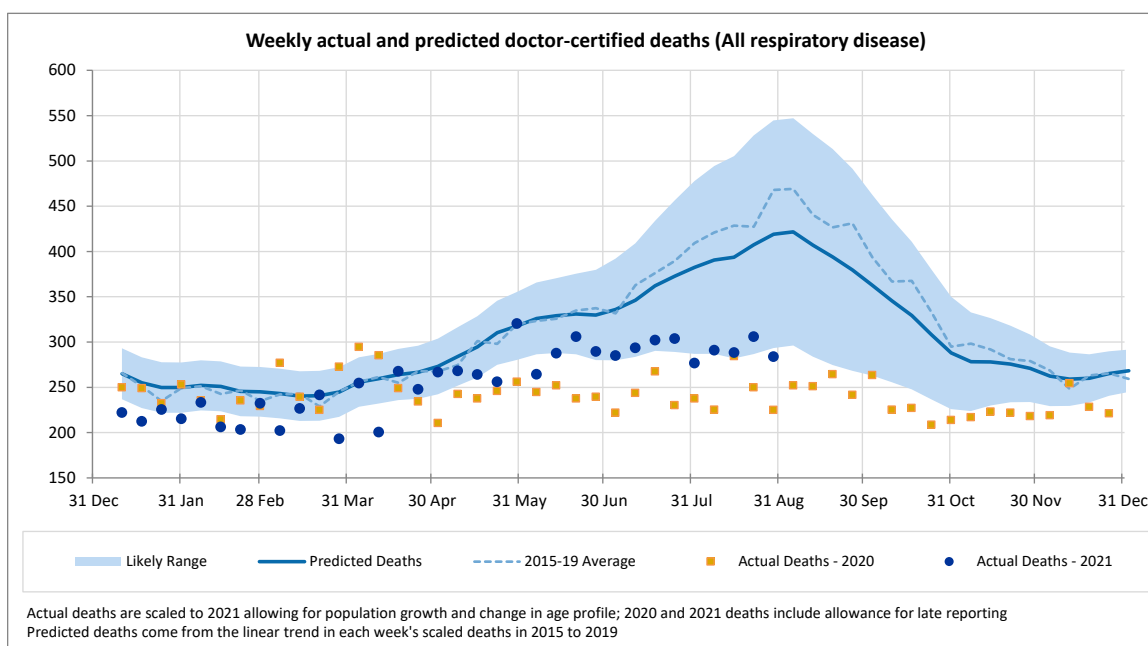
“The Actuaries Institute will continue to monitor the changed patterns in mortality as Australia gradually adapts to the new ‘Covid-normal’ environment,” Ms Grace said. “We hope that many public health measures - like wearing a mask in high risk areas - will allow some of the positive improvements in public health to continue,” she said.

Cause of Death	Latest Month - Aug 2021				2021 Year to Date (34 w weeks)			
	Actual	Predicted	Diff.	% Diff	Actual	Predicted	Diff.	% Diff
COVID-19	79	-	79		85	-	85	
All Respiratory Disease	1,300	1,800	(500)	-28%	8,700	10,200	(1,500)	-15%
Cancer	4,290	4,260	30	1%	32,400	32,700	(300)	-1%
Heart disease	1,270	1,210	50	4%	9,180	8,810	360	4%
Cerebrovascular disease	810	830	(20)	-3%	6,030	5,880	150	2%
Diabetes	460	440	20	3%	3,250	3,090	150	5%
Dementia	1,450	1,570	(120)	-8%	10,350	10,530	(180)	-2%
Other unspecified diseases	3,980	3,850	130	3%	27,900	26,500	1,400	5%
All Other Disease	12,300	12,200	100	1%	89,100	87,500	1,600	2%
Total	13,600	14,000	(400)	-2%	97,900	97,800	100	0%

Ms Lang said the Actuaries Institute model calculates a predicted baseline number of deaths for the main causes of doctor-certified deaths, by allowing for the 2021 population and age structure, plus a continuation of the 2015-19 trend of mortality improvements.

“To understand what’s happening in the community with mortality rates, it’s necessary to adjust the baseline to produce an ‘expected’ count of deaths,” Ms Lang said.

The tables show that, after adjusting for late reporting, actual deaths can be compared with the predicted baseline.



Jennifer Lang is available for interview.

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