

COVID-19 Mortality Working Group says excess deaths eased a little in August 2022 as flu season ends earlier than normal

7 December 2022

- **Excess mortality for August was 10% (+1,700 deaths).**
- **Excess mortality for the first eight months of 2022 was 13% (+15,400 deaths).**
- **Excess mortality is concentrated in older age groups (i.e., 65+ years) but is a significant percentage in all age groups in 2022.**
- **Most states and territories had broadly similar levels of excess mortality in 2022, but the delayed re-opening of WA's borders had a positive impact there.**

Excess deaths for the first eight months of 2022 were +15,400, or 13% more than predicted, the Actuaries Institute said. It said excess deaths in August were 10% more than predicted, lower than recent months, mostly due to lower-than-expected respiratory deaths following an earlier end to the flu season.

Applying their model to Australian Bureau of Statistics (ABS) data (released 25 November), the Institute's COVID-19 Mortality Working Group estimates that just over half of the excess mortality for the first eight months of 2022 (+8,200 deaths) is due to COVID-19 ('from COVID-19'), with another +2,100 deaths in people who had COVID-19 listed as a contributory cause ('with COVID-19'). The remaining excess deaths of +5,100 had no mention of COVID-19 on the death certificate.

Deaths from COVID-19 peaked in the last week of July and fell across August. "Even after removing all 'from' and 'with' COVID-19 deaths, significant excess mortality remains for 2022, with a spike around the time of the January peak in COVID-19 deaths and another coinciding with the peak of the flu season in June/July," said Karen Cutter, spokesperson for the Working Group.

Analysis of Causes

The Working Group said over 2020-2022 there is a "clear increase" in excess deaths due to ischaemic heart disease, with increasing trends in cancer and cerebrovascular disease. Diabetes deaths have generally been higher than expected throughout the pandemic. Of these causes, ischaemic heart disease is the biggest contributor to excess deaths in 2022, followed by cancer.

Deaths from respiratory disease have been significantly lower than expected throughout the pandemic, except for the short (and early) flu season in June/July 2022.

Deaths from other diseases have been, as a group, the largest contributor to non-COVID-19 excess deaths in 2021 and 2022. "It is not clear what might be driving this, although we expect that at least part of the excess will be in respect of people who otherwise may have succumbed to respiratory disease in 2020 and 2021," said Ms Cutter.

State/Territory breakdown

Ms Cutter said all states/territories apart from NT had significant levels of excess mortality in 2022. "Generally, about half of this was due to deaths from COVID-19, with the exception of Tasmania that had relatively fewer deaths from COVID-19 and more deaths from other causes," she said.

She said the lower measured excess mortality for WA reflected the later introduction of widespread COVID-19 into that state's population compared with the Eastern states.

With its relatively young and affluent population, the ACT experienced lower excess mortality than the larger states while the NT, also with a very young population, showed a low net impact of the pandemic.



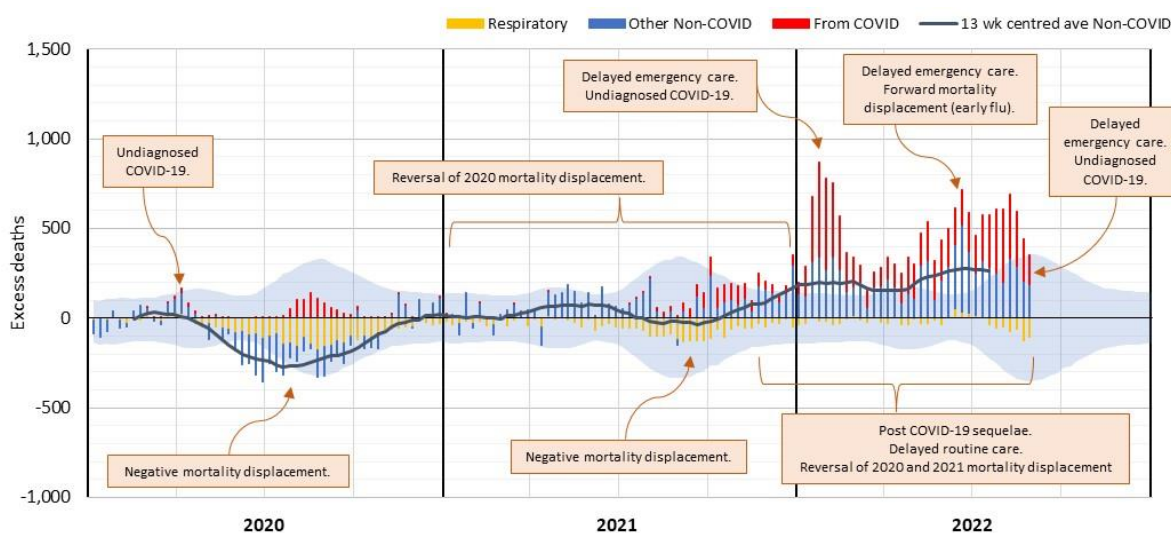
Impact on Age bands

The Working Group said it is notable that there are excess deaths in almost all age bands in 2022. While the number and percentage of excess deaths is higher in older age bands, there are excess deaths in all age groups, even after removing deaths from and with COVID-19.

Ms Cutter said while the numbers of deaths in the 0-44 and 45-64 age bands is small (fewer younger people die), excess deaths in 2022 were materially higher than expected, particularly for females. "The differences are worth investigation, although the small numbers mean that there is considerable natural variation," she said.

Possible causes of Non-COVID-19 excess deaths

The Working Group has carefully considered the possible reasons for non-COVID-19 excess deaths, given the insights that can be gleaned from piecing together the analysis by cause, age/gender and state/territory.



The graph highlights that multiple factors are likely in play, and different factors may be more or less pronounced at various times.

The latest [Actuaries Digital](#) article on COVID-19 excess mortality can be found [here](#).

Karen Cutter is available for interview.

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ATTACHMENTS

Excess deaths in Australia – By Cause of Death to 31 August 2022

Cause of Death	Month of Aug 2022				Jan to Aug 2022				2021 (52 weeks)		2020 (53 weeks)	
	Actual	Predicted	Excess	% Excess	Actual	Predicted	Excess	% Excess	Excess	% Excess	Excess	% Excess
COVID-19												
Doctor-certified	1,080	-	1,080	100%	7,800	-	7,800	100%	1,248	100%	856	100%
Coroner-referred	57	-	57	100%	410	-	410	100%	122	100%	51	100%
All COVID-19	1,137	-	1,137	100%	8,210	-	8,210	100%	1,370	100%	907	100%
Doctor-certified other respiratory disease												
Influenza	14	170	(160)	-92%	270	360	(90)	-25%	(790)	-100%	(690)	-94%
Pneumonia	240	380	(140)	-38%	1,510	2,040	(530)	-26%	(890)	-31%	(810)	-29%
Lower respiratory	820	890	(70)	-8%	5,280	5,370	(90)	-2%	(830)	-10%	(1,260)	-15%
Other respiratory	360	430	(60)	-15%	2,480	2,610	(130)	-5%	(110)	-3%	(500)	-14%
All doctor-certified respiratory	1,430	1,860	(430)	-23%	9,540	10,380	(830)	-8%	(2,630)	-17%	(3,260)	-21%
Doctor-certified other diseases												
Cancer	4,450	4,260	190	4%	33,980	33,230	750	2%	110	0%	(680)	-1%
Ischaemic heart disease	1,450	1,170	280	23%	10,220	8,730	1,490	17%	830	6%	(90)	-1%
Cerebrovascular disease	830	790	40	5%	6,350	5,860	490	8%	320	4%	(70)	-1%
Diabetes	510	480	30	5%	3,820	3,360	460	14%	380	8%	390	8%
Dementia	1,630	1,660	(20)	-1%	11,780	11,050	730	7%	(570)	-3%	(830)	-5%
Other unspecified diseases	4,340	4,030	310	8%	31,160	28,050	3,110	11%	2,400	6%	(610)	-2%
All other doctor-certified disease	13,210	12,400	810	7%	97,310	90,280	7,030	8%	3,470	3%	(1,890)	-1%
Non-COVID-19 coroner-referred	2,080	1,920	150	8%	15,140	14,160	980	7%	800	4%	(100)	-1%
Total	17,900	16,200	1,700	10%	130,200	114,800	15,400	13%	3,000	2%	(4,300)	-3%

* Figures shaded green indicate that the observed values are below the 95% prediction interval while figures shaded red are above the 95% prediction interval

Excess deaths in Australia – By Age/Gender to 31 July 2022

Age Band and Gender	2022 Year to Date (30 weeks)						2021				2020			
	Actual	Predicted	Excess	% Excess	Covid-19	% Net	Excess	% Excess	Covid-19	% Net	Excess	% Excess	Covid-19	% Net
Males, 0-44	2,970	2,890	80	3%	58	1%	-80	-2%	24	-2%	-120	-2%	2	-2%
Males, 45-64	8,010	7,700	310	4%	305	0%	-80	-1%	143	-2%	-350	-3%	19	-3%
Males, 65-74	10,370	9,450	920	10%	711	2%	400	2%	182	1%	-200	-1%	56	-2%
Males, 75-84	17,110	14,570	2,540	17%	1,509	7%	1,020	4%	243	3%	-560	-2%	126	-3%
Males, 85 and over	19,810	16,950	2,860	17%	2,187	4%	590	2%	212	1%	-810	-3%	212	-4%
Males, All ages	58,300	51,600	6,700	13%	4,770	4%	1,900	2%	805	1%	-2,000	-2%	415	-3%
Females, 0-44	1,600	1,490	110	7%	33	5%	100	4%	15	3%	10	0%	0	0%
Females, 45-64	5,090	4,750	340	7%	194	3%	-40	0%	77	-1%	-150	-2%	12	-2%
Females, 65-74	6,740	6,320	420	7%	360	1%	260	2%	105	1%	-410	-4%	24	-4%
Females, 75-84	12,910	11,270	1,640	15%	898	7%	780	4%	140	3%	-380	-2%	113	-3%
Females, 85 and over	26,540	22,760	3,780	17%	2,270	7%	1,340	3%	215	3%	-1,350	-3%	295	-4%
Females, All ages	52,900	46,600	6,300	14%	3,755	5%	2,500	3%	552	2%	-2,300	-3%	444	-3%
Person, 0-44	4,570	4,380	190	4%	91	2%	20	0%	39	0%	-110	-1%	2	-1%
Person, 45-64	13,100	12,450	650	5%	499	1%	-110	-1%	220	-2%	-500	-2%	31	-2%
Person, 65-74	17,110	15,770	1,340	8%	1,071	2%	660	2%	287	1%	-610	-2%	80	-3%
Person, 75-84	30,030	25,840	4,190	16%	2,407	7%	1,800	4%	383	3%	-940	-2%	239	-3%
Person, 85 and over	46,350	39,710	6,640	17%	4,457	5%	1,930	3%	427	2%	-2,160	-3%	507	-4%
Person, All ages	111,200	98,100	13,000	13%	8,525	5%	4,300	3%	1,357	2%	-4,300	-3%	859	-3%

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* COVID-19 deaths shown are those both from and with COVID-19

Excess deaths in Australia – By State/Territory to 31 July 2022

State/Territory	2022 Year to Date (30 weeks)						2021				2020			
	Actual	Predicted	Excess	% Excess	Covid-19	% Net	Excess	% Excess	Covid-19	% Net	Excess	% Excess	Covid-19	% Net
NSW	36,800	32,200	4,600	14%	2,552	6%	700	1%	625	0%	-2,000	-4%	62	-4%
Victoria	27,600	23,900	3,700	16%	1,984	7%	1,800	4%	698	3%	-300	-1%	805	-3%
Queensland	22,500	19,800	2,700	14%	1,191	8%	800	2%	0	2%	-1,200	-4%	0	-4%
South Australia	9,100	8,300	800	10%	457	5%	200	1%	0	1%	-400	-3%	0	-3%
Western Australia	9,800	9,100	700	9%	341	5%	700	4%	0	4%	-200	-2%	11	-2%
Tasmania	3,000	2,600	400	15%	108	11%	300	8%	0	8%	-100	-3%	17	-3%
Northern Territory	660	680	-20	-3%	27	-7%	20	2%	1	2%	-20	-1%	0	-1%
ACT	1,700	1,500	200	12%	104	5%	0	-2%	12	-2%	-100	-2%	2	-2%
Australia	111,200	98,100	13,000	13%	6,764	7%	4,300	3%	1,336	2%	-4,300	-3%	897	-3%

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