

Research Insights

Mental distress in Australia over the course of the first wave of the COVID-19 pandemic

Is there an association between the number of active COVID-19 cases and the prevalence of mental distress?

COVID-19 case numbers and mental distress in the Australian community

The *Taking the Pulse of the Nation* survey has been tracking Australians' mental health since the first week of April 2020. An earlier analysis by Butterworth (2020) estimated that levels of mental distress in Australia had doubled since the COVID-19 pandemic began.

A number of different factors are likely to have led to increased mental distress in the community. People may be anxious about their own health, or that of their family, friends and work colleagues. The economic shock associated with the COVID-19 pandemic has led to job loss, business closures and corresponding financial strain for many. Furthermore, lockdowns and social isolation have disrupted people's social connections and increased feelings of loneliness.

As circumstances change over time and across Australia, we expect levels of distress in the community will also change. Since the beginning of April, the pandemic has evolved across Australia in terms of how many people are reported to have contracted the virus (see Figure 1). The number of new COVID-19 cases was initially high in early April but declined steadily and stabilised soon after as the various lockdown measures showed effect. Although the number of new cases remained low and stable for a few weeks, by mid-June the number of daily COVID-19 cases had begun to increase, reflecting growth in cases in Victoria.

In this Research Insight, we analyse 14 weeks of data from the *Taking the Pulse of the Nation* survey to investigate whether changes in Australians' mental distress correspond to changes in the previous week's COVID-19 case numbers, from the week beginning on 6 April to the week beginning on 6 July.

This analysis focuses on using weekly data from the *Taking the Pulse of the Nation* survey to track mental distress at a national level through the first wave of the COVID-19 crisis and ends at the point the number of COVID-19 cases in the second wave began to increase significantly in Victoria. Levels of mental distress are compared to official weekly numbers (COVID LIVE 2020) of new COVID-19 cases (from the previous week). We also examine differences in mental distress over time by labour force status and financial stress status, and how this is related to COVID-19 case numbers.

At the time of writing, data from the *Taking the Pulse of the Nation* survey were available until early September. There are several reasons why the analyses in this Research Insight do not include these observations. First, after the 14th week the *Taking the Pulse of the Nation* survey was conducted fortnightly instead of weekly. We want to track the association between new COVID-19 cases and mental distress on a weekly basis and not change time-frame during the analysis period. Second, this Research Insight focuses on the National level and thus on the time period corresponding to the first wave of the pandemic. Third, the survey numbers, especially at a fortnightly frequency) may not be sufficient to support robust time series analysis at the state level. Therefore, although the potential localised effect of the marked increase in COVID-19 cases in Victoria during the second wave is of interest, it is not the focus of this Research Insight.

Key Insights

1 Mental distress tracks the number of COVID-19 cases...

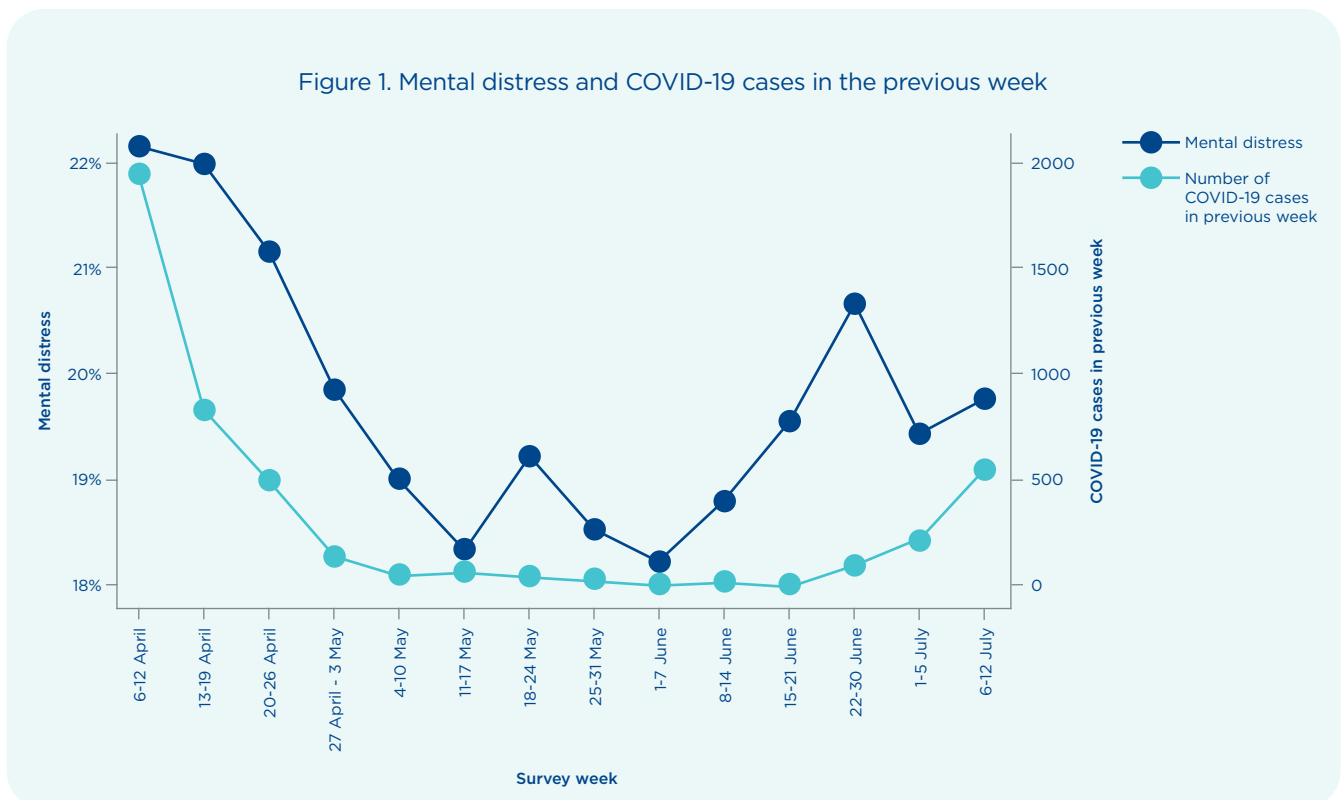
Between April and July, there is a strong correlation ($r = 0.78$) between average levels of mental distress among working age community members and the number of new COVID-19 cases recorded for Australia in the previous week (Table 1). Changes in mental distress over time track the previous week's COVID-19 infections (Figure 1).

Levels of mental distress initially declined as the number of COVID-19 cases declined. Mental distress started rising from the week beginning on 15 June, matching the previous week's increase in COVID-19 case numbers.

Table 1: Correlations between mental distress and lagged COVID-19 cases

	Mental distress					
	Overall	Employed	Unemployed	Not in the labour force	No financial stress	Financial stress
Lagged cases	0.78	0.76	0.19	-0.09	0.71	0.42

Notes: Data are weighted to be representative of the Australian working age (18-64) population. The correlation coefficient can range from 0 to 1; the closer to 1, the stronger the correlation. Bold font indicates coefficient is statistically significant at the 1% level.



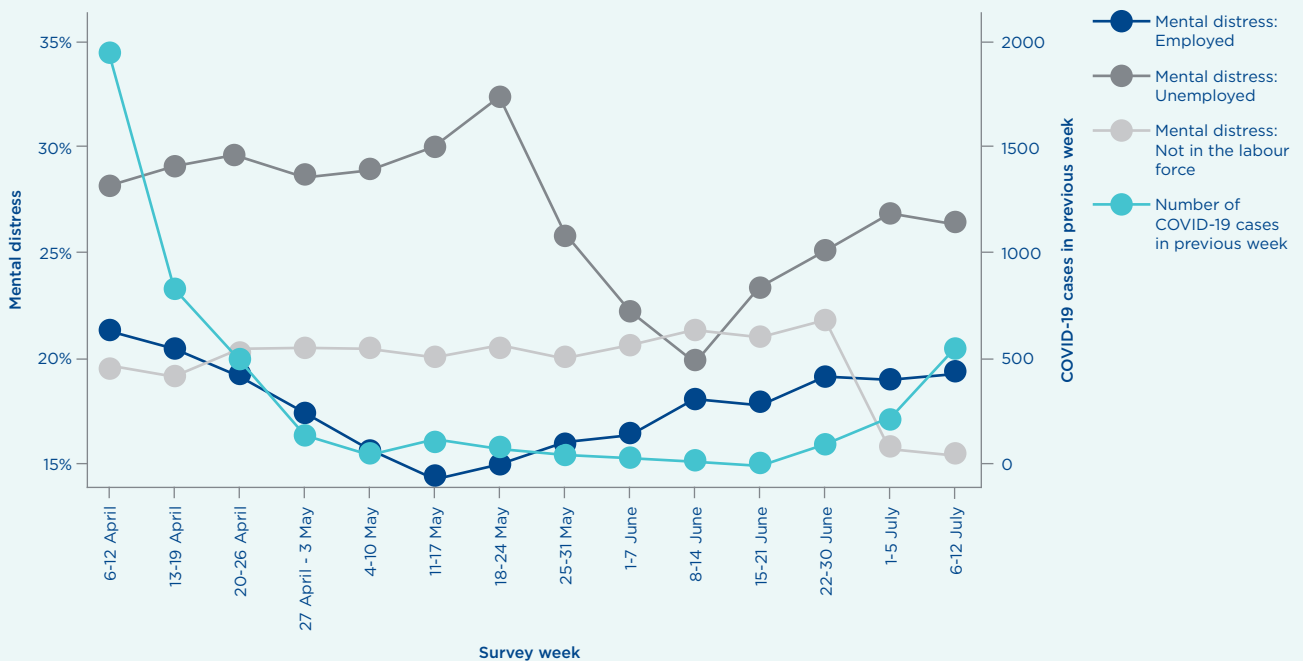
Note: Data are weighted to be representative of the Australian working age (18-64) population. Mental distress generated from *Taking the Pulse of the Nation* - Melbourne Institute survey and COVID-19 cases obtained from COVID LIVE (2020).

2 ... especially for people employed...

Unemployment and lack of workforce connection are associated with increased mental distress. Looking at differences by labour force status, the unemployed have the highest levels of mental distress relative to other groups (Figure 2) (Butterworth 2020). Distress among the employed follows lagged COVID-19 cases quite strongly, with a correlation of 0.76 (Table 1). In contrast, there is much less evidence of a relationship between new COVID-19 case numbers and mental distress among the unemployed ($r = 0.19$) and those not in the labour force ($r = -0.09$).

Mental distress among the employed may be associated with new COVID-19 cases, as increasing infections may raise anxiety about contracting the disease at work, and the potential of further lockdowns and increased job uncertainty. Mental distress has a weaker relation to lagged COVID-19 cases for the unemployed and those not in the labour force, suggesting other factors—such as financial stress and worries about joblessness—are more immediate determinants of their mental distress.

Figure 2. Mental distress and COVID-19 cases in the previous week by labour force status



Note: Data are weighted to be representative of the Australian working age (18-64) population. Mental distress generated from *Taking the Pulse of the Nation* - Melbourne Institute survey and COVID-19 cases obtained from COVID LIVE (2020).

3 ...and people not in financial distress

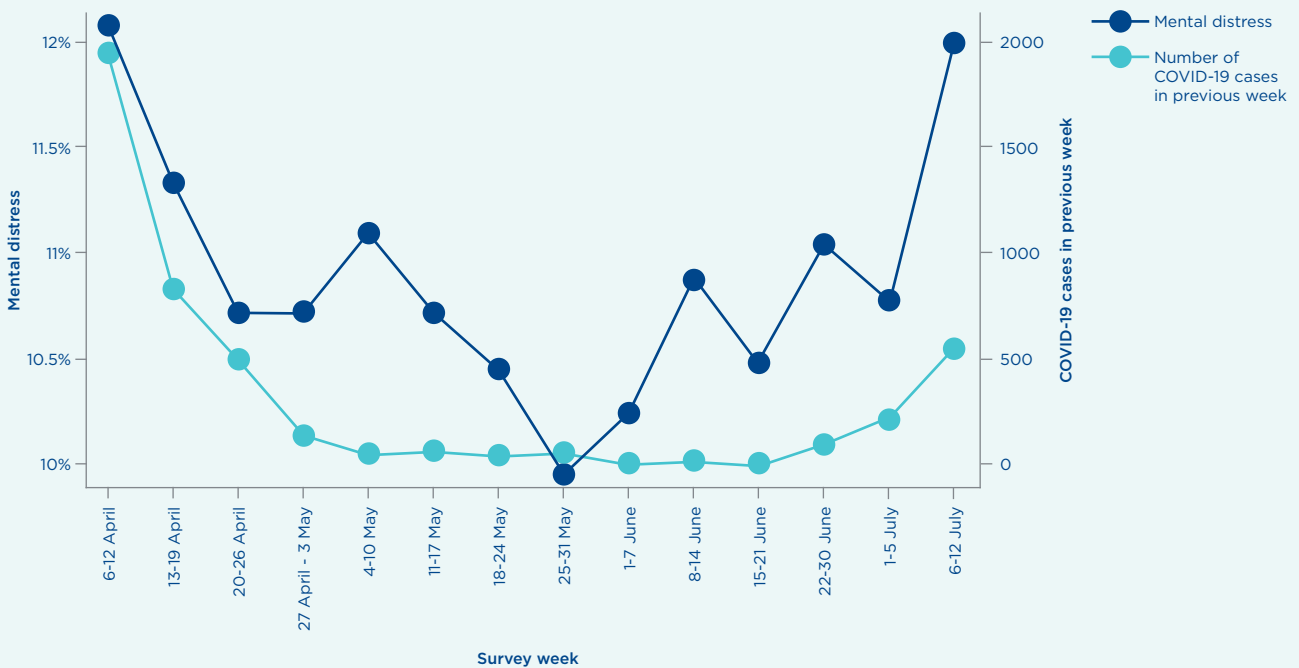
Across the 14 waves, those who were unemployed reported the highest rate of financial stress. Overall, 44 per cent of unemployed working age adults reported being in financial stress, compared to 27 per cent of employed adults and 31 per cent of those not in the labour force. The greater financial stress experienced by those who are unemployed is likely to drive their consistently higher rates of mental distress and explain why variation in the number of COVID-19 cases over time has less of an impact on levels of mental distress in this group.

It is interesting that the decline in mental distress shown for the unemployed from mid-May follows the introduction of the Coronavirus Supplement, which effectively doubled the rate of income support. It may show that the additional financial support helped protect the mental health of those who were unemployed. It is important to note that the levels of mental distress are already much higher among people in financial distress. Given the large differences in mental distress across financial stress status, we present separate figures in order to better display changes in mental distress.

For those not in financial distress (Figure 3), mental distress initially declined as the number of COVID-19 cases in the previous week declined, after which mental distress remained relatively constant. Mental distress started rising from the beginning of June, with COVID-19 cases the previous week increasing substantially as well. The correlation between mental distress and COVID-19 case numbers is 0.71 among people not in financial stress.

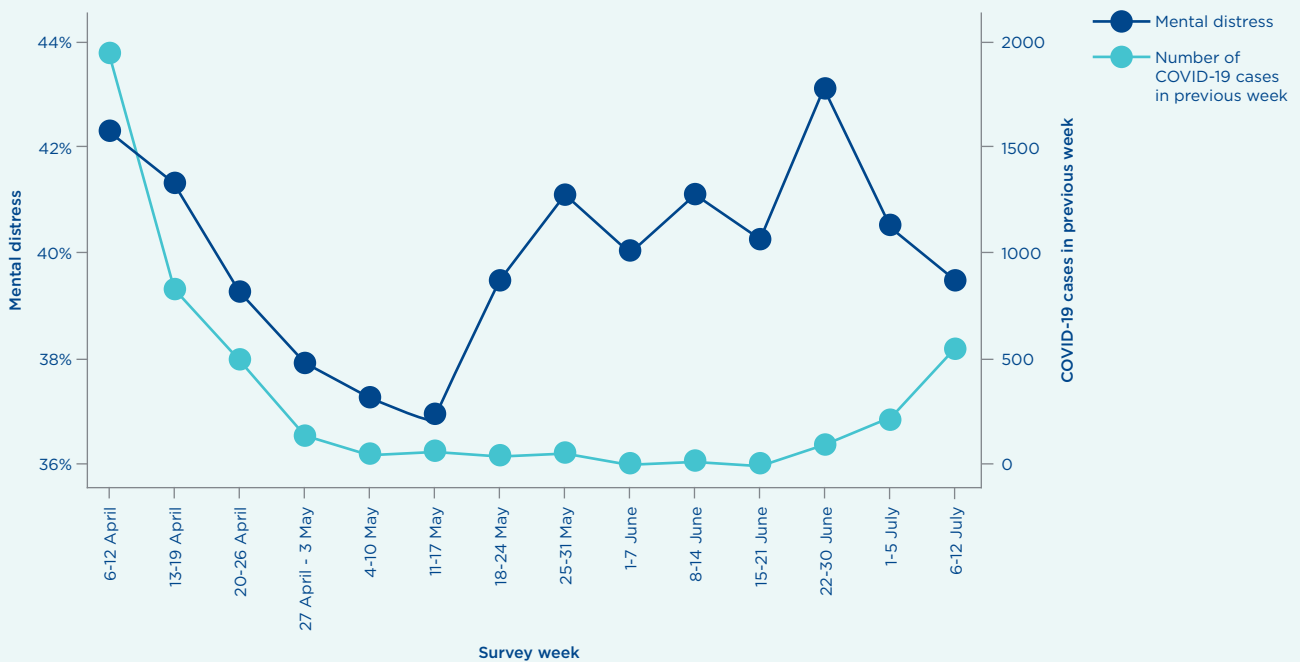
For persons experiencing financial stress (Figure 4), mental distress very closely tracked COVID-19 cases until mid-May, but from a much higher level than persons not in financial stress. However, from mid-May mental distress for those in financial stress remained high despite a fall in COVID-19 cases. The correlation between mental distress and the previous week's COVID-19 cases is 0.42, much weaker than for people not in financial stress.

Figure 3. Mental distress and COVID-19 cases in the previous week by individuals not in financial stress



Note: Data are weighted to be representative of the Australian working age (18-64) population. Mental distress generated from *Taking the Pulse of the Nation* - Melbourne Institute survey and COVID-19 cases obtained from COVID LIVE (2020).

Figure 4. Mental distress and COVID-19 cases in the previous week by individuals in financial stress



Note: Data are weighted to be representative of the Australian working age (18-64) population. Mental distress generated from *Taking the Pulse of the Nation* - Melbourne Institute survey and COVID-19 cases obtained from COVID LIVE (2020).

COVID-19 cases may reflect underlying mental distress

Through the COVID-19 crisis, the weekly level of mental distress in working-age Australians has been strongly related to the number of new cases recorded in the previous week. The relationship is not perfect but supports the notion that mental distress in the community is related to how strongly the threat of COVID-19 is experienced. This relationship is most evident among the employed – potentially indicating that the perceived threat of increasing COVID-19 cases reflects anxieties of contracting the disease (among those who physically need to work with other people) and concerns about stricter lockdowns and job losses.

Those in financial stress and/or are unemployed report much higher rates of mental distress than those who are employed or not experiencing financial stress. This same pattern was evident pre-COVID (Crowe, Butterworth & Leach 2016) Although elevated, the current analysis showed that the level of mental distress in these groups is less sensitive to changes in the number of new COVID-19 cases over time. This suggests that mental distress for those in financial difficulty primarily reflects their dire economic circumstances rather than anxieties about the spread of the pandemic.

The evidence that levels of mental distress in the community has reflected variation in the number of new COVID-19 cases lends support for a number of the responses already introduced.

The provision of clear and accurate information describing risks and ways of preventing infection can help to mitigate levels of community mental distress in such difficult times (Black Dog Institute 2020). The increases observed in levels of community distress also supports Australian Government initiatives to expand telephone and video conferencing options for mental health services and provide additional funding for digital and telephone support services (Morrison 2020)

Levels of mental distress among those in adverse economic circumstances, such as unemployment or financial stress, also suggest that addressing these underlying social conditions needs to be a focus in both the immediate and longer-term. The decline in distress observed midway through the time series for those who were unemployed followed a substantial increase in the level of income support and may show how improved financial circumstances can boost mental health. Though further research is needed, policymakers and mental health services providers need to be mindful of increased risk of mental distress as the special financial support provided through the pandemic is withdrawn.

Finally, the time series analyses in this Research Insight ended just as the the second wave of new COVID-19 cases in Victoria was beginning. Future waves of data collection through the *Taking the Pulse of the Nation* survey may provide the opportunity to look at localised mental health effects of the second wave in Victoria and to consider how mental health in the rest of Australia is influenced by local vs. national changes.

Further Information

Datasets

This analysis has been drawn from *Taking the Pulse of the Nation* – Melbourne Institute’s survey of the impact of COVID-19. The aim of the weekly survey is to track changes in the economic and social wellbeing of Australians living through the effects of the coronavirus pandemic whilst adapting to various changes in Federal and State government policies. The survey contains responses from 1,200 persons per week, aged 18 years and over. The sample is stratified by gender, age and location to be representative of the Australian population. The current analysis draws on the first 14 weeks of the survey (6 April to 6 July) and therefore includes data from up to 16,800 Australian adults.

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Glossary of terms

Mental distress: To measure mental distress, respondents are asked: “During the past week about how often did you feel depressed or anxious?” Responses range from ‘all the time’, ‘most of the time’, ‘some of the time’, ‘a little of the time’, and ‘none of the time’. A person is classified as being in mental distress if during the past week they felt depressed or anxious ‘all the time’ or ‘most of the time’.

Financial stress: To measure financial distress, respondents are asked: “How would you describe your current financial conditions, in terms of paying for essential goods and services such as bills, rents, mortgages?” Responses range from ‘very financially stressed’, ‘moderately financially stressed’, ‘making ends meet’, ‘moderately comfortable financially’, and ‘very comfortable financially’. A person is classified as being in financial distress if they describe their financial situation as ‘very financially stressed’ or ‘moderately financially stressed’.

References & Endnotes

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