**Project Summary**

There is much debate around the potential impact of the Coronavirus Pandemic (COVID-19) on mental ill-health, economic adversity and suicide mortality in Australia, with the prevailing view being that all will rise dramatically. Two widely publicised models have suggested a median yearly increase in suicide rates of 9-25% (Epworth et al 2020, BMC 2020) – actual increases of 276-750 suicide deaths per year; which would mean Australia would account for almost 20 percent of the global suicide tally, which seems unlikely. A key factor in these models is the use of historical population-estimates of psychological distress acting as a final mediator of the effects of socio-economic factors such as job loss on suicide rates (Russ et al 2012). However the historical temporal links between the economy, suicide and psychological distress have not been re-examined in the current pandemic, nor in Australia.

To determine the link between psychological distress and other factors, a critical data source is reliable measures of psychological distress in the population. The Australian Bureau of Statistics (ABS) and the Melbourne Institute (University of Melbourne, Australia) both provide monthly estimates of psychological distress in the population using the K10 or one of it’s abbreviations (Kessler et al 2003). However during the pandemic, distress levels in the population varied at a much faster rate than monthly estimates can represent, and such daily peaks may coincide with changes in suicide rates more faithfully. *The University of Maryland Social Data Science Center Global COVID-19 Trends and Impact Survey, in partnership with Facebook*, collects daily samples of psychological distress since the beginning of the pandemic in April 2020 from Facebook users throughout Australia and its subregions. These daily samples represent a unique resource with which to compare against the routinely collected monthly estimates of psychological distress, and may also provide sufficient temporal resolution to support a detailed examination of the links between psychological distress and other factors such as unemployment and suicide.

While the *UMD Global CTIS* represents a unique and valuable resource, the publicly available data is provided in aggregate, adjusted for age, gender and region. Because there are likely to be important differences between genders and age groups in psychological distress (refs), we would like to request access to the microdata so that we can estimate the daily differences in psychological distress for each age group and gender over our regions of interest (Australian States and Territories).

Our analysis plan includes calculating daily estimates of psychological distress (depression, anxiety and financial concern items) for each age group and gender across the six regions available in *UMD Global CTIS* dataset for Australia. These temporal trends would be compared to other contemporaneously collected monthly estimates of similar variables by the ABS as well as our collaborators at the Melbourne Institute (e.g., Taking the Pulse of the Nation Tracker, TPNT survey available at <https://melbourneinstitute.unimelb.edu.au/data/covid-19-tracker>), to determine the convergent validity of all datasets. We would then aim to establish the association between psychological distress, economic uncertainty and suicide in the regional populations of Australia using suicide and economic data (e.g., unemployment rate) from each Australian State. Our ultimate aim would be to provide updated associations between economic uncertainty, suicide and psychological distress for Australia, and so enable better forecasting, resource allocation and policy-making.