

Unemployment, suicide, and COVID-19: Using the evidence to plan for prevention

Mark Deady
Research Fellow
University of New South Wales
Black Dog Institute
Faculty of Medicine
Sydney, New South Wales, Australia

Leona Tan
Research Fellow
University of New South Wales
School of Psychiatry
Faculty of Medicine
Sydney, New South Wales, Australia

University of New South Wales
Black Dog Institute
Faculty of Medicine
Sydney, New South Wales, Australia

Nathasha Kugenthiran
University of New South Wales
Black Dog Institute
Faculty of Medicine
Sydney, New South Wales, Australia

Daniel Collins
University of New South Wales
Black Dog Institute
Faculty of Medicine
Sydney, New South Wales, Australia

Helen Christensen
Chief Scientist
University of New South Wales
Black Dog Institute
Faculty of Medicine
Sydney, New South Wales, Australia

Samuel Harvey
Associate Professor and Chief Psychiatrist
Director of the Workplace Mental Health
University of New South Wales
Black Dog Institute

Faculty of Medicine
Sydney, New South Wales, Australia

Manuscript word count: 1,447 words

Competing interests: No relevant disclosures.

15-word intro

- COVID-19-related unemployment may significantly increase suicide rates, implementation of appropriate preventative measures is critical

Abstract – 100 words

In response to the COVID-19 pandemic, restrictions on movement and business operations have resulted in a sharp rise in unemployment. Global data consistently show that during times of economic hardship and rising unemployment, rates of suicide frequently rise. Certain measures have been found to be important in mitigating this increase. We present recommendations to lessen the potential impact of this crisis on suicide rates in Australia and ensure those who are affected are well-supported. These recommendations include aspects of welfare support, labour market programs, treatment, and prevention interventions, and coordinated care and reporting.

In response to the COVID-19 situation the imposition of social distancing policies and related labour market impacts have resulted in extensive job losses. Globally, the International Monetary Fund has predicted the steepest economic downturn since the Great Depression ¹. In May 2020, 2.3 million Australians (1 in 5 employed people) either were unemployed or had work hours reduced for economic reasons, resulting in the steepest rise in rates of unemployment on record—a change from 5.2% (March) to 7.1% ², with Treasury predicting a rate of 8% by September.

Unemployment alone is associated with a two- to threefold increased relative-risk of death by suicide, compared with being employed ³, and sudden spikes in unemployment are associated with corresponding surges in the population rates of suicide ⁴. The Global Financial Crisis (GFC), which led to the deepest recession since the 1930s and the loss of 30 million jobs worldwide, is estimated to have resulted in at least 10,000 additional economic suicides between 2008 and 2010 in Europe and North America ⁵. Projections using historical data suggest suicide rates may increase by 3.3–8.4% over the 2020–2021 period in the US ⁶, and up to 27% in Canada ⁷.

Of course, all this is speculative and although the links between economic recessions and suicide are well-documented, what is less clear is how the relationship plays out in the context of larger sociocultural and health events like COVID-19. The 1918–20 influenza pandemic caused around 39 million deaths worldwide and resulted in governments implementing quarantine, public hygiene, and social distancing policies, but evidence regarding its impact on world economies and suicide is limited. The SARS epidemic of 2003 came at the height of the Asian financial crisis so disentangling the two is difficult. However, during this period, suicide rates in a number of Asian nations increased in tandem with unemployment, reaching historical peaks in 2003 ⁸.

As the situation continues to change daily, an accurate estimate of likely unemployment resulting from the COVID-19 pandemic is difficult. Even current estimates underrepresent the impact as those who are still employed but at significantly reduced hours are discounted. This is of particular concern, when considering the GFC which saw Australian unemployment take a comparatively minor increase from 4.0% to 5.8% and coincided with an increase in suicide rates of 22% and 12% for unemployed men and women respectively ⁹.

As the current crisis may potentially double the current unemployment rate, one can extrapolate to alarming conclusions, with some (albeit unpublished) modelling reflecting this ¹⁰.

Despite this grim speculative forecast, this is not the whole story. There are marked differences between the present crisis and those that have come before. For instance, the current recession is supply (rather than demand) driven, and the prospect of recovery, though slow, is conceivable and may bolster optimism. Although major industries will be severely impacted (e.g., mining and tourism), there is potential for increased local spending as the borders remain closed. Additionally, some hope may be found in the resilience shown by civilians in times of global unrest—for instance, the often cited “blitz spirit”¹¹—and the possibility that the shared experience of the pandemic might bring a sense of social cohesion which may prove life-preserving.

Notwithstanding considerable evidence of the psychosocial impacts of mass unemployment, we argue that the impact of the COVID-19 pandemic on suicide rates is far from predetermined, and that early and sustained action can prevent many suicides and other adverse mental health outcomes. During prior recessions, Austria, Sweden, and Finland have each displayed resilience in the face of substantially increased unemployment⁵. In fact, despite sizeable rises in unemployment rates in Sweden and Finland in the early 90s, the rate of suicide decreased⁴.

We suggest that based on the available literature there are several factors which may moderate the impacts of widespread unemployment. These include both early prevention measures and crisis care: sustained welfare spending, labour market programs and protections, adequate funding of (and access to) mental health services including prevention programs and engaging new technologies in reporting and care-response.

Firstly, countries with sustained welfare spending during recessions have less marked increases in suicide rates than those that cut spending on welfare and job-search initiatives for the unemployed¹². Robust social policies to ensure adequate welfare benefits for those with low or sudden loss of income are thought to be central to offsetting the impact of the recession on suicide¹³. Where governments expand public welfare spending in the wake of disasters there is good evidence for a reduction in suicide. The Federal Government’s introduction of the *JobKeeper* and *JobSeeker* payment schemes are likely to mitigate suicide risk while simultaneously stimulating the economy and require long-term investment.

Secondly, countries with active labour market programs, which assist the unemployed to find work or retrain, and those with labour market protections have lower rates of unemployment-related suicide than those that do not¹². It has been estimated that during European recession

periods of the last fifty years each US\$100 per capita of investment in active labour market programs reduced the association of unemployment with suicide by 0.4% ⁴.

Thirdly, it is critical that investment is made immediately in mental health, not just in terms of treatment, but also evidence-based prevention programs. Different approaches are required to reduce attempts, and deaths, involving both public health and clinical services. In terms of direct suicide prevention interventions, there is increasing evidence for multilevel systems approaches—utilising components ranging from individual-level (e.g. assertive aftercare, psychosocial interventions) to public health interventions (e.g. GP and gatekeeper training) ¹⁴, in addition to indirect interventions (targeting risk-factors). Critical to effectiveness is the degree of penetration of these services, based on early population modelling, and the types of factors likely to differentially affect communities, including indigenous communities. Improving quality, availability and access to programs and crisis support services is vital to preventing suicide ¹⁴, with the current crisis both creating new challenges and compounding pre-existing systemic issues.

While the mental health sector is rapidly mobilising to improve access and the government has been quick to revise the Medicare rebate in this regard, it is vital that resource allocation and innovation continues beyond the span of the physical distancing measures. While increasing telehealth services is critical, the health professionals available to support them are unlikely to increase to meet need, and blended services which include automatised digital components may be a more efficient solution. The additional \$48.1 million in mental health funding announced in May is a positive step, however, further funding for evidence-based prevention initiatives is more important than ever to alleviate demand on treatment services. In terms of suicide prevention, digital interventions may hold some utility for both at-risk and actively suicidal individuals, especially where other health services are lacking ¹⁵.

Of course, economies undergoing recessions by their very nature have significant financial constraints, and governments will inevitably have to review spending across all services. It is critical that these limited funds are directed toward the most viable and cost-effective services. Importantly, not all groups are affected equally, and sub-group consideration is vital. In crisis periods, it can be the most disadvantaged groups that are disproportionately affected, and marginalised and at-risk populations require specific attention. It is also important to consider that many of the adverse consequences of job loss including house repossession, mounting debts, mental health problems and relationship strain are delayed and therefore long-term investment is required ¹⁶.

Finally, engaging new technologies in the fight against suicide may present a valuable new tool. This includes IT-enabled coordinated care and the dynamic reporting of suicide risk using immediate and real-time data so that developing hotspots can be identified and shut down and local services can be mobilised. Although this field of study is in its infancy the potential for concepts such as integrated, geospatial mapping, hotspot surveillance, and in real-time reporting could lead to significant advancements in predicting and intervening in suicidal behaviour¹⁷.

Ultimately, the economic fallout resulting from the COVID-19 situation represents a threat, requiring urgent mobilisation and planning. There are certain steps required to moderate the mental health impacts of widespread unemployment, including sustained welfare spending, labour market programs, adequate investment in (and access to) mental health treatment and prevention services, and the dynamic reporting of suicide risk to aid regional responses and means restriction. The current economic crisis presents an opportunity to implement policies that would not only mitigate the impact of the recession on suicide but may incidentally reduce the national health and economic burden presented by emotional distress in any economic cycle. In doing so, there may be the ability to emerge from the current crisis stronger and more resilient as a nation.

References

1. International Monetary Fund. World Economic Outlook, April 2020: Chapter 1. Washington: International Monetary Fund; 2020.
2. ABS. 6202.0 - Labour Force, Australia, May. Canberra: Australian Bureau of Statistics; 2020 Jun 2020.
3. Milner A, Page A, LaMontagne AD. Long-Term Unemployment and Suicide: A Systematic Review and Meta-Analysis. *PLOS ONE*. 2013;8(1):e51333.
4. Stuckler D, Basu S, Suhrcke M, Coutts A, McKee M. The public health effect of economic crises and alternative policy responses in Europe: an empirical analysis. *Lancet*. 2009;374:315–23.
5. Reeves A, McKee M, Stuckler D. Economic suicides in the Great Recession in Europe and North America. *British Journal of Psychiatry*. 2014;205(3):246-7.
6. McIntyre RS, Lee Y. Preventing suicide in the context of the COVID-19 pandemic. *World Psychiatry*. 2020;19(2):250-1.
7. McIntyre RS, Lee Y. Projected increases in suicide in Canada as a consequence of COVID-19. *Psychiatry Research*. 2020;290:113104.
8. Chang SS, Gunnell D, Sterne JA, Lu TH, Cheng AT. Was the economic crisis 1997-1998 responsible for rising suicide rates in East/Southeast Asia? A time-trend analysis for Japan, Hong Kong, South Korea, Taiwan, Singapore and Thailand. *Soc Sci Med*. 2009;68(7):1322-31.
9. Milner A, Morrell S, LaMontagne AD. Economically inactive, unemployed and employed suicides in Australia by age and sex over a 10-year period: what was the impact of the 2007 economic recession? *International Journal of Epidemiology*. 2014;43(5):1500-7.
10. COVID-19 impact likely to lead to increased rates of suicide and mental illness [press release]. Australian Medical Association 2020.
11. Field G. Nights Underground in Darkest London: The Blitz, 1940–1941. *International Labor and Working-Class History*. 2002;62:11-49.
12. Haw C, Hawton K, Gunnell D, Platt S. Economic recession and suicidal behaviour: Possible mechanisms and ameliorating factors. 2015;61(1):73-81.
13. Stuckler D, Basu S, McKee M. Budget crises, health, and social welfare programmes. *BMJ*. 2010;340:c3311.
14. Kryszynska K, Batterham PJ, Tye M, Shand F, Calear AL, Cockayne N, et al. Best strategies for reducing the suicide rate in Australia. *Aust N Z J Psychiatry*. 2016;50(2):115-8.
15. Torok M, Han J, Baker S, Werner-Seidler A, Wong I, Larsen ME, et al. Suicide prevention using self-guided digital interventions: a systematic review and meta-analysis of randomised controlled trials. *The Lancet Digital Health*. 2020;2(1):e25-e36.
16. Quaglio G, Karapiperis T, Van Woensel L, Arnold E, McDaid D. Austerity and health in Europe. *Health Policy*. 2013;113(1):13-9.
17. Torok M, Konings P, Batterham PJ, Christensen H. Spatial clustering of fatal, and non-fatal, suicide in New South Wales, Australia: implications for evidence-based prevention. *BMC Psychiatry*. 2017;17(1):339.