

## **Suicide risk and prevention during the COVID19 pandemic.**

The mental health effects of the COVID-19 pandemic might be profound[1] and there are suggestions that suicide rates will rise, though this is not inevitable. Suicide is likely to become a more pressing concern as the pandemic spreads and has longer-term effects on the general population, the economy and vulnerable groups. Preventing suicide therefore needs urgent consideration. The response must capitalise on, but extend beyond, general mental health policies and practices.

There is some evidence that suicides increased in the USA during the 1918-19 influenza pandemic[2] and among older people in Hong Kong during the 2003 SARS epidemic[3]. The current context is different and evolving. A wide-ranging interdisciplinary response that recognises how the pandemic might heighten risk and applies knowledge about effective suicide prevention approaches is key. Selective, indicated and universal interventions are required (see Panel).

The likely adverse effects of the pandemic on people with mental illness, and on population mental health in general, might be exacerbated by fear, self-isolation and physical distancing[4]. Suicide risk might be increased because of COVID19-related stigma towards affected individuals and their families. Those with psychiatric disorders might experience worsening symptoms and others might develop new mental health problems, especially depression, anxiety and post-traumatic stress (all associated with increased suicide risk). These will be experienced by the general population and those with high levels of exposure, like frontline health care workers. The consequences for mental health services are already being felt (e.g., increased workloads and the need to find new ways of working). Some services are developing expertise in conducting psychiatric assessments and delivering interventions remotely (e.g., by telephone, digitally); this should be implemented more widely, but with consideration that not all patients will feel comfortable with such interactions and they may present implications for privacy. Making evidence-based online resources and interventions freely available at scale could benefit population mental health.

People in suicidal crises require special attention. Some might not seek help, fearing that services are overwhelmed and that attending face-to-face appointments might put them at risk. Others might seek help from voluntary sector crisis helplines which might be stretched beyond capacity due to surges in calls and reductions in volunteers. Mental health services should develop clear remote

assessment and care pathways for suicidal individuals and staff training to support new ways of working (see Royal College of Psychiatrists guidance: <https://www.rcpsych.ac.uk/about-us/responding-to-covid-19/responding-to-covid-19-guidance-for-clinicians>). Helplines will require support to maintain/increase their volunteer workforce and offer them more flexible methods of working. Digital training resources would enable those who have not previously worked with suicidal individuals to take active roles in mental health services and helplines. Evidence-based online interventions and apps should be made available to support suicidal individuals[5].

Loss of employment and financial stressors are well-recognised risk factors for suicide[6]. Governments should provide financial safety nets (e.g., food/housing/unemployment supports). Consideration must be given not only to individuals' current situations but also their futures. For example, many young people have had their education interrupted and are anxious about their prospects. Educational institutions must seek alternative ways to deliver curricula and governments need to be prepared to offer them financial support if necessary. Active labour market programmes will also be crucial [6].

The pandemic might adversely affect other known precipitants of suicide. For example, domestic violence and alcohol consumption might increase during lockdown. Public health responses must ensure that those facing interpersonal violence are supported and that safe drinking messages are communicated. Social isolation, entrapment and loneliness contribute to suicide risk [7] and are likely to increase during the pandemic, particularly for bereaved individuals. Providing community support for those living alone and encouraging families/friends to 'check in' is helpful. Easily accessible help for bereaved individuals is critical.

Access to means is a major risk factor for suicide. In the current environment, certain lethal means (e.g. firearms/pesticides/analgesics) might be more readily available, 'stockpiled' in homes. Retailers selling such products should be especially vigilant when dealing with distressed individuals. Governments and NGOS should consider temporary sales restrictions (e.g. on quantities) and deliver carefully framed messages about reducing access to commonly used and highly lethal suicide means.

Irresponsible media reporting of suicide can lead to spikes in suicides [8]. Repeated exposure to stories about the crisis can increase fear[9] and heighten suicide risk. Media professionals should ensure that reporting follows existing [10] and COVID-19-specific guidelines

([https://www.iasp.info/pdf/2020\\_briefing\\_statement\\_ABversion\\_reporting\\_on\\_suicide\\_during\\_covid19.pdf](https://www.iasp.info/pdf/2020_briefing_statement_ABversion_reporting_on_suicide_during_covid19.pdf)).

Comprehensive responses should be informed by enhanced surveillance of COVID-19-related risk factors contributing to suicidal behaviours. Some suicide and self-harm registers are now collecting data on COVID-19-related stressors contributing to the episode, summaries of these data will facilitate timely public health responses. Repeat representative cross-sectional and longitudinal surveys will help identify increases in population-level risk, as might anonymised real-time data on caller concerns from helplines. Monitoring demands and capacity of mental healthcare providers over coming months is also essential to ensure resources are directed to those parts of the system under greatest pressure. These efforts need to be appropriately resourced and coordinated.

The suicide-related consequences of the pandemic might vary depending on countries' public health control measures, sociocultural/demographic structures, availability of digital alternatives to face-to-face consultation and existing supports. The effects might be worse in resource poor settings where economic adversity will be compounded by inadequate welfare supports. Other concerns in these settings include social effects of banning religious gatherings and funerals, interpersonal violence, unintended consequences of alcohol bans, and vulnerable migrant workers. COVID-19 related stigma and misinformation may be particularly acute in these settings. Many of the solutions proposed above will be applicable globally, but additional efforts will be required in resource poor settings.

These are unprecedented times. The pandemic will cause distress and leave many vulnerable. Mental health consequences are likely to be present for longer and peak later than the actual pandemic. However, research evidence and the experience of national strategies provide a strong basis for suicide prevention. We should be prepared to take the actions highlighted here, backed by vigilance and international collaboration.

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#### **Authors contribution**

All authors contributed to writing the article and the development of the ideas expressed in it. Members of the International COVID-19 Suicide Prevention Research Collaboration, contributed to the ideas expressed in the article and commented on an early draft.

#### **Declarations of interest**

LA, DG, KH, NK are members of the Department of Health and Social Care (England) National Suicide Prevention Strategy Advisory Group (LA, Chair). DG has grants from NIHR, outside the submitted work and is a member of Samaritans Policy and Research Committee and Movember's Global Advisory Cttee. LA holds grants from DHSC during the conduct of the study. AJ reports chairing the National Advisory Group on Suicide and Self-harm Prevention to Welsh Government and is national lead on suicide prevention for Public Health Wales. NK reports grants and personal fees from Department of Health and Social Care, National Institute of Health Research, National Institute of Health and Care Excellence, Healthcare Quality and Improvement Partnership, outside the submitted work; and work with NHS England on national quality improvement. He has chaired NICE guideline committees for Self-harm and Depression He is currently the Topic Advisor for the new NICE Guidelines for self-harm. RO'C reports grants from NIHR, Medical Research Foundation, Scottish Government, NHS Health Scotland/Public Health Scotland, outside the submitted work; and he is co-chair of the Academic Advisory Group to the Scottish Government's National Suicide Prevention Leadership Group. He is also a member of the National Institute of Health and Care Excellence's guideline development group for the new NICE self-harm guidelines initiatives for suicide and self-harm.

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## References

1. Holmes et al. Multidisciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science. *Lancet Psychiatry*, in press (2020). [Add details](#)
2. Wasserman IM. The Impact of Epidemic, War, Prohibition and Media on Suicide: United States, 1910–1920. *Suicide and Life-Threatening Behavior* 1992; 22: 240-254. doi:[10.1111/j.1943-278X.1992.tb00231.x](https://doi.org/10.1111/j.1943-278X.1992.tb00231.x)
3. Cheung YT, Chau PH, Yip PSF. A revisit on older adults suicides and Severe Acute Respiratory Syndrome (SARS) epidemic in Hong Kong. *Int J Geriatr Psychiatry* 2008; 23: 1231–1238.
4. Yao H, Chen JH, Xu Yi-Feng. Patients with mental health disorders in the COVID-19 epidemic. *Lancet Psychiatry* 2020; 7, e21 [https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366\(20\)30090-0/fulltext](https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(20)30090-0/fulltext)
5. Torok M, Han J, Baker S, Werner-Seidler A, Wong I, Larsen ME, Christensen H. Suicide prevention using self-guided digital interventions: a systematic review and meta-analysis of randomised controlled trials. *Lancet Digital Health* 2020; 2: e25–36 [https://www.thelancet.com/journals/landig/article/PIIS2589-7500\(19\)30199-2/fulltext](https://www.thelancet.com/journals/landig/article/PIIS2589-7500(19)30199-2/fulltext)
6. 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 (9686), 315-323. [http://dx.doi.org/10.1016/S0140-6736\(09\)61124-7](http://dx.doi.org/10.1016/S0140-6736(09)61124-7) .
7. O'Connor RC, Kirtley OJ. The Integrated Motivational-Volitional Model of Suicidal Behaviour. *Philosophical Transactions of the Royal Society B* 2018; 373: 20170268.
8. Niederkrotenthaler T, Braun M, Pirkis J, et al. Association between suicide reporting in the media and suicide: systematic review and meta-analysis. *BMJ* 2020; 368:m575.
9. Garfin DR, Silver RC, Holman EA. The Novel Coronavirus (COVID-2019) Outbreak: Amplification of Public Health Consequences by Media Exposure. *Health Psychology* 2020 Advance online publication. <http://dx.doi.org/10.1037/hea0000875>
10. World Health Organisation Preventing suicide: a resource for media professionals - update 2017 [https://www.who.int/mental\\_health/suicide-prevention/resource\\_booklet\\_2017/en/](https://www.who.int/mental_health/suicide-prevention/resource_booklet_2017/en/)

## Panel A public health response to mitigating suicide risk associated with the COVID-19 pandemic

**SELECTIVE/INDICATED INTERVENTIONS**  
(Target individuals who are at heightened risk of suicide or are actively suicidal; designed to reduce risk of suicide among these individuals)

**UNIVERSAL INTERVENTIONS**  
(Target the whole populations and focus on particular risk factors without identifying specific individuals with those risk factors; designed to improve mental health and reduce suicide risk across the population)

