



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



## Flattening the curve of mental ill-health: the importance of primary prevention in managing the mental health impacts of COVID-19



### ARTICLE INFO

#### Keywords:

COVID-19  
 Pandemic  
 Mental health  
 Mental disorders  
 Primary prevention  
 Risk factors

### ABSTRACT

The COVID-19 pandemic is one of the biggest challenges the global community has faced this century. The threat of the virus coupled with the impacts of the social and economic shut-down measures required to slow its spread, appear to be impacting on people's mental health and wellbeing. Over the weeks, months and years ahead it is likely that many countries will experience a 'wave' of COVID-19 related mental disorders as a result of an increase in risk factors linked to the pandemic such as social isolation; unemployment; housing and income stress; intimate partner violence; work-related trauma; and grief and loss. The 'two-pronged' approach used to deal with COVID-19, provides an excellent blueprint for managing its mental health impacts as well. Nations must focus on preventing the occurrence of new-onset cases of mental disorders as well as strengthening their mental healthcare response to support people who become mentally unwell. A focus on primary prevention is particularly important to 'flatten the curve' and avoid a surge in incidence of mental disorders stemming from the COVID-19 pandemic. Evidence-based interventions designed to prevent common disorders are already available and should be scaled-up. These interventions include parenting programs, social and emotional learning programs, self-care strategies, and workplace mental wellbeing programs, among others.

### 1. Introduction: the looming wave of mental ill-health

The coronavirus disease 2019 (COVID-19) pandemic is one of the biggest challenges the global community has faced this century. Across the world, scores of countries have imposed social and economic lockdown measures to prevent the spread of the SARS-CoV-2 virus (Hale, Petherick, Phillips, & Webster, 2020). The sudden and dramatic changes to people's lives and livelihoods are creating high levels of stress among people across the world. Much of this stress is a normal and probably temporary reaction to the new and uncertain nature of the situation and the social and economic disruption it has created.

However, there are worrying signs that stress levels are becoming problematic and causing some in the community to experience levels of psychological distress suggestive of emerging anxiety and mood disorders (Qiu et al., 2020; Wang et al., 2020). There are also concerns people already living with a mental disorder may experience a worsening of their condition (Yao, Chen, & Xu, 2020). It is likely that many countries will experience a 'wave' of COVID-19 related mental disorders over the weeks, months and years ahead (Montemurro, 2020; Shigemura, Ursano, Morganstein, Kurosawa, & Benedek, 2020). The 'two-pronged' approach used to deal with the virus, also provides an excellent blueprint for managing its mental health impacts (see Fig. 1). Nations should focus on preventing the occurrence of new cases of mental disorders as well as strengthening their mental healthcare response to support people who do become mentally unwell.

#### 1.1. Flattening the mental ill-health curve

In many countries, including Australia, China and Italy, work on the

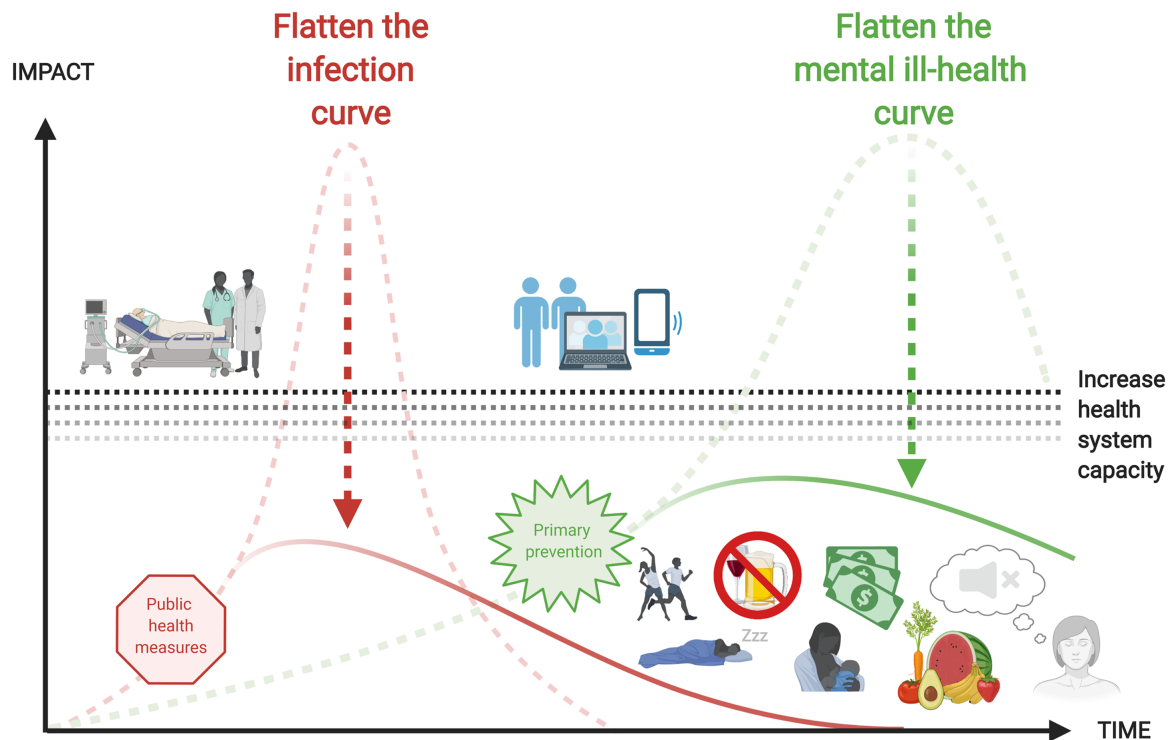
latter has already started, with mental healthcare service delivery re-designed to align with physical distancing restrictions and efforts made to boost capacity through increased availability of telephone support, online treatment programs, and telehealth mental health consultations (Department of Health, 2020; Starace & Ferrara, 2020; Zhou et al., 2020). However, while mental healthcare system strengthening measures are vital, on their own they will not 'flatten the curve of mental ill-health'. A focus on primary prevention is also needed to avoid a surge in incidence of mental disorders stemming from the COVID-19 pandemic.

#### 1.2. What can we do to prevent COVID-19 related mental ill-health?

There is good evidence to show that mental disorders are not inevitable and many common conditions can be prevented from occurring (Arango et al., 2018; Mendelson & Eaton, 2018). Wide-scale use of evidence-based preventive interventions will be needed to address the risk factors that are escalating due to the pandemic, including social isolation; unemployment; financial and housing stress; intimate partner violence; work-related trauma; and grief and loss.

##### 1.2.1. Children, young people and their parents and carers

The mental wellbeing of children, young people and their parents and carers, is a priority. Practical and emotional support, and assistance with material basics for parents experiencing socioeconomic disadvantage, can help to reduce the stress many parents are feeling. Existing evidence-based parenting programs focused on the prevention of conduct disorders, depression, and anxiety, particularly those available online, can assist parents to manage the dramatic changes in family life wrought by COVID-19 (Hansen, Broomfield, & Yap, 2019; Yap



Adapted by Dr Lachlan Kent from Twitter post by Dr Victor Tseng (@VectorSting Mar 31)

Fig. 1. A two-pronged approach: primary prevention and increased mental healthcare capacity.

et al., 2016). Parenting programs targeted to the prevention of childhood maltreatment and other adverse childhood experiences are also needed to counteract the increase in these particular risk factors that physical distancing and quarantine measures have created.

Skills-building programs that enable children and young people to acquire the social and emotional skills that contribute to resilience, mental wellbeing, and a reduced risk of mental disorders also need to be scaled-up. Many evidence-based programs designed for school-based delivery already exist but are often poorly implemented due to the lack of time, resourcing and professional development offered to support educators to deliver these programs. It would be very timely for governments to provide additional resources and supports for schools and educators to implement these important programs. Adapting such programs to online delivery should also be considered, so children, young people and their parents and carers can access them independently.

### 1.2.2. Adults and the elderly

Adults too need attention. A public awareness campaign encouraging people to look after their mental health as they would look after their physical health would help raise awareness and encourage action. Self-care strategies drawn from health, clinical and positive psychology that are known to enhance mental wellbeing and reduce the odds of mental ill-health could be promoted through such campaigns as well as through online learning programs for adults. These strategies need to be widely promoted with messaging nuanced over time to align with the evolving nature of the stressors that people are experiencing.

Workplace mental wellbeing initiatives tailored to tackling the new stressors and changes in work practices caused by COVID-19 are needed across all workforces. Those on the frontline of pandemic response efforts, such as healthcare workers, should be a distinct target for prevention programs given the work-related trauma many have experienced (Torales, O'Higgins, Castaldelli-Maia, & Ventriglio, 2020). Tailored support for educators is also important to address the challenges they are experiencing and to empower them to support students.

Tackling loneliness is also vital and the elderly are a key focus. Many may have already been experiencing loneliness pre-COVID-19 and physical distancing restrictions may have exacerbated these feelings further. Moreover, in the absence of a vaccine or effective treatment for COVID-19, the public may still be encouraged to minimise social contact with older people even as physical distancing restrictions ease, putting older persons at risk of protracted periods of isolation and loneliness.

### 1.2.3. Mentally healthy social and economic policies

Attention should also be given to public policies to help people cope through the current upheaval as well as its social and economic aftermath. The COVID-19 pandemic has highlighted the importance of social policies that ensure people have equitable access to the social determinants of health and mental health, like good-quality education, a living wage, stable housing, and affordable access to health and mental healthcare.

In some countries crucial social policies have already been put in place. In Australia, Federal Government funded income support has been increased for the elderly and the unemployed. Businesses that have experienced a drop in income are entitled to subsidies to help them retain and pay their workers. Banks are able to adjust loan repayments and landlords are being supported to reduce rents for individuals and businesses experiencing income stress. These policies must be kept in place for as long as possible, until the economic situation stabilises.

### 1.2.4. Data-driven planning and action

Data to guide action is essential. COVID-19 has shown the importance of reliable, real-time information to enable tailoring of response measures. Population-level data on risk and protective factor exposure and levels of mental wellbeing and psychological distress would be invaluable.

## 2. Conclusion

As countries slowly control the spread of the SARS-CoV-2 virus a new challenge for governments will be how to avert a potential mental health crisis as individuals and communities experience the social and economic aftershocks of the pandemic. Strengthening the mental healthcare system is important, but on its own it will not address this problem. Primary prevention must be a parallel part of the solution. A number of evidence-based approaches to primary prevention already exist and can be scaled-up immediately, while we continue to support research to find new and more effective approaches.

### Declaration of Competing Interest

I am on the Editorial Board for the Mental Health and Prevention journal and Professor Jorm is the Chair of the Prevention United Scientific Advisory Committee.

### Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.mhp.2020.200185](https://doi.org/10.1016/j.mhp.2020.200185).

### References

- Hansen, A., Broomfield, G., & Yap, M. B. H. (2019). A systematic review of technology-assisted parenting programs for mental health problems in youth aged 0-18 years: Applicability to underserved Australian communities. *Australian Journal of Psychology*, 4, 433. <https://doi.org/10.1111/ajpy.12250>.
- Mendelson, T., & Eaton, W. W. (2018). Recent advances in the prevention of mental disorders. *Social psychiatry and psychiatric epidemiology*, 53(4), 325–339. <https://doi.org/10.1007/s00127-018-1501-6>.
- Montemurro, N. (2020). The emotional impact of COVID-19: From medical staff to common people. *Brain, Behavior, and Immunity*. <https://doi.org/10.1016/j.bbi.2020.03.032>.
- Department of Health. (2020). *Fact sheet COVID-19 National Health Plan – Supporting the mental health of Australians through the Coronavirus pandemic, 2020*. Canberra: Australian Government Department of Health.
- Qiu, J.-Y., Shen, B., Zhao, M., Wang, Z., Xie, B., & Xu, Y. (2020). A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. *General Psychiatry*, 33(2), e100213. <https://doi.org/10.1136/gpsych-2020-100213>.
- Shigemura, J., Ursano, R. J., Morganstein, J. C., Kurosawa, M., & Benedek, D. M. (2020). Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: Mental health consequences and target populations. *Psychiatry and Clinical Neurosciences*, 74(4), 281–282. <https://doi.org/10.1111/pcn.12988>.
- Starace, F., & Ferrara, M. (2020). COVID-19 disease emergency operational instructions for Mental Health Departments issued by the Italian Society of Epidemiological Psychiatry. *Epidemiology and Psychiatric Sciences*, 29, e116. <https://doi.org/10.1017/S2045796020000372>.
- Torales, J., O'Higgins, M., Castaldelli-Maia, J. M., & Ventriglio, A. (2020). The outbreak of COVID-19 coronavirus and its impact on global mental health. *International Journal of Social Psychiatry*. <https://doi.org/10.1177/0020764020915212> 20764020915212.
- Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate Psychological Responses and Associated Factors during the Initial Stage of the 2019 Coronavirus Disease (COVID-19) Epidemic among the General Population in China. *International Journal of Environmental Research and Public Health*, 17(5), <https://doi.org/10.3390/ijerph17051729>.
- Yao, H., Chen, J.-H., & Xu, Y.-F. (2020). Patients with mental health disorders in the COVID-19 epidemic. *The Lancet Psychiatry*, 7(4), e21. [https://doi.org/10.1016/S2215-0366\(20\)30090-0](https://doi.org/10.1016/S2215-0366(20)30090-0).
- Hale, T., Petherick, A., Phillips, T., & Webster, S. (2020). Variation in Government Responses to COVID-19. Version 4.0. Retrieved from [www.bsg.ox.ac.uk/covid-tracker](http://www.bsg.ox.ac.uk/covid-tracker).
- Yap, M. B. H., Morgan, A. J., Cairns, K., Jorm, A. F., Hetrick, S. E., & Merry, S. (2016). Parents in prevention: A meta-analysis of randomized controlled trials of parenting interventions to prevent internalizing problems in children from birth to age 18. *Clinical Psychology Review*, 50, 138–158. <https://doi.org/10.1016/j.cpr.2016.10.003>.
- Zhou, X., Snoswell, C. L., Harding, L. E., Bambling, M., Edirippulige, S., Bai, X., & Smith, A. C. (2020). The Role of Telehealth in Reducing the Mental Health Burden from COVID-19. *Telemedicine and e-Health*, 26(4), 377–379. <https://doi.org/10.1089/tmj.2020.0068>.
- Arango, C., Díaz-Caneja, C. M., McGorry, P. D., Rapoport, J., Sommer, I. E., Vorstman, J. A., ... Carpenter, W. (2018). Preventive strategies for mental health. *The Lancet Psychiatry*, 5(7), 591–604. [https://doi.org/10.1016/S2215-0366\(18\)30057-9](https://doi.org/10.1016/S2215-0366(18)30057-9).

Stephen R. Carbone\*

Executive Director Prevention United and Honorary, University of Melbourne School of Population and Global Health, 552 Victoria Street North Melbourne Victoria, 3051, Australia  
E-mail address: [stephen.carbone@preventionunited.org.au](mailto:stephen.carbone@preventionunited.org.au)

\* Corresponding author.