

Modeling shows path to suicide prevention in COVID-19 recovery

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New modeling released today by the University of Sydney's Brain and Mind Centre combines productivity and suicide data, demonstrating the benefits of acting urgently and effectively to flatten the mental health "curve."

Ahead of the National Cabinet meeting on Friday, unique modeling by

the University of Sydney's Brain and Mind Centre (BMC) demonstrates that many lives can be saved, particularly in rural and regional Australia, by urgent actions to flatten the [mental health](#) "curve."

The modeling, released today, shows that taking a holistic approach to [suicide](#) prevention in the wake of COVID-19 makes sense not only from a mental health perspective but also economically.

It shows that over a five-year period in one region alone, without urgent and effective action, up to half a billion dollars in productivity losses would be directly attributable to mental health and suicide in a coronavirus-impacted world.

The Brain and Mind Centre has focused on the NSW North Coast Primary Health Network in its scenario modeling, considering scenarios of increases in specialized mental [health services](#) that are in the range of 2-11 percent per year of pre-COVID-19 capacity.

Findings from this modeling indicate 8-10 percent reductions in suicide, self-harm hospitalizations and ED presentations can be achieved by investing in a combination of specialized mental health services (provided by mental health GPs, psychiatrists and allied health services, and community mental health services) with IT-enabled coordinated care and post-[suicide attempt](#) assertive aftercare (active outreach and enhanced contact to support someone after an attempt).

When extrapolated from the North Coast area of 530,000 people, to the national picture (if similar conditions apply), this would translate over the five years to 2650 lives saved, 33,450 fewer suicide attempts and 225,800 fewer presentations to EDs nationwide.

Key points

- Brain and Mind Centre (BMC) modeling last week showed suicides could spike by between 750 and 1500 deaths per year, as reported by [7.30](#) and The Australian.
- New modeling [reported this week](#) shows productivity impacts of mental ill-health from COVID-19 are very significant and long-lasting.
- Today, BMC releases health system solutions, where suicidal behavior and impacts on the health systems can be reduced by up to 10 percent annually, flattening the curve*.
- This shows how up to 53 suicide deaths—in addition to, 669 suicide attempts, and 4516 Emergency Department (ED) presentations over five years—could be prevented in one region of 530,000 people alone—this could translate nationally to 2650 lives saved, 33,450 fewer suicide attempts and 225,800 fewer presentations to EDs, assuming similar conditions.

Brain and Mind Centre co-director of health and policy, Professor Ian Hickie AM, said mental health services capability could be markedly increased immediately by linking private hospital, day clinics and other services into the public system.

"In the same way that hospital beds and intensive care capacity were increased in preparation for COVID-19 cases, the national capacity to provide rapid and effective care for those with a mental health crisis can be increased immediately," he said.

"We now need to be smart about tackling the mental health curve. Pre-COVID-19, Prime Minister Scott Morrison highlighted the prevention of youth suicide as a priority, and emphasised his wish to see new 21st Century thinking about ways forward—resulting in the launch of the NHMRC Centre of Research Excellence YOUTHe, headquartered here at BMC.

"Prime Minister Morrison now needs to ensure that those same young people do not suffer the lifetime consequences from the [economic downturn](#)—we need to be proactive about mental health, and learn from the past but also look to the future."

The modeling is unique in integrating economic and mental health data, highlighting the value of dynamic systems modeling (used in the COVID-19 response) in informing the allocation of mental health spending in a way that is strategic, targeted, and efficient.

"The results show the impact different levels of investment in mental health programs and services will play a vital role in supplementing efforts to increase community connectedness and the social and economic supports required to help flatten this curve," Professor Hickie said.

Economist and affiliate of the Brain and Mind Centre's new Centre for Mental Wealth, Associate Professor Kenny Lawson, said: "Our work is demonstrating the value of system dynamics modeling to capture the feedbacks between the economy, mental health and policy responses."

Head of Systems modeling and Simulation at the BMC, Associate Professor Jo-An Atkinson, explains the importance of nuanced approaches when assessing a national response.

"We have modeled many of the programs and services that are available or being considered for funding, and note that there can be significant variation in their impacts as a result of regional variation.

"There is an often-overlooked link between the mental wellbeing of Australians and our economic performance," said Associate Professor Atkinson, who is also co-lead of the BMC Centre for Mental Wealth.

"There is a need for significant investment in bringing together economic, clinical and [mental health services](#) research, and policy reform expertise—to integrate broader macroeconomic factors into our models that drive, and are driven by, our nation's mental health and wellbeing."

Provided by University of Sydney

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