



# Exploring the mental wealth of the North Coast PHN

Preliminary evaluation



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**SYDNEY**

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## Background

The results presented below have been generated from a system dynamics model to support mental health services planning and suicide prevention in the North Coast NSW region.

The model was developed in partnership with the North Coast Primary Health Network and will contribute to work being undertaken by the North Coast Collective, an approach which seeks to embed a regional collaborative model in addressing mental health needs across the continuum. In addition to health service providers, the Collective involves range of community stakeholders including people with lived experience of mental ill-health and suicidal behaviour.

***To re-purpose existing detailed and robust mental health systems models to support decision making nationally (as the Doherty Institute did for COVID-19) and for other regional hotspots around Australia requires a serious national commitment and investment.***

# Preliminary evaluation

**Scenarios:** Preliminary results presented below were derived from two scenarios:

- **Scenario 1:** A conservative scenario that assumes an unemployment rate of 11.1%, with youth unemployment reaching 24.0% (and at 10% reduction in social connectedness)
- **Scenario 2:** A more pessimistic scenario that assumes the unemployment rate will reach as high as 15.9%, with youth unemployment reaching 34.8% (with a 20% reduction in social connectedness)
- For both scenarios, a conservative "Frictional Capital Approach" has been used

**Preliminary results:** For the North Coast region:

- **Scenario 1:** Under the conservative scenario, the total productivity costs associated with COVID-19 and the subsequent increased mental health burden is estimated to be **\$2.066B** (cumulative cost from March 2020 to 2025); this represents 3.3% of baseline productivity. Of this, **\$228.8M** represents the cost of productivity losses directly attributable to mental health and suicide.
- **Scenario 2:** Under the pessimistic scenario, the total productivity costs associated with a COVID-19 and the subsequent increased mental health burden is estimated to be **\$4.255B** (cumulative cost from March 2020 to 2025); this represents 6.8% of baseline productivity. Of this, **\$503M** represents the cost of productivity losses directly attributable to mental health and suicide.

Scenario 1: Productivity loss - Cost \$M per year

Scenario 2: Productivity loss - Cost \$M per year

Period	Unemployment	Mental Health (employed & unemployed)	Period	Unemployment	Mental Health (employed & unemployed)
Mar 2020 - Jan 2021	411.67	-21.48*	Mar 2020 - Jan 2021	14.82	-41.77*
Jan 2021 - Jan 2022	592.27	8.45	Jan 2021 - Jan 2022	1186.54	27.30
Jan 2022 - Jan 2023	438.28	60.31	Jan 2022 - Jan 2023	914.32	136.07
Jan 2023 - Jan 2024	341.99	86.42	Jan 2023 - Jan 2024	731.07	184.57
Jan 2024 - Jan 2025	281.93	95.07	Jan 2024 - Jan 2025	608.28	196.85
<b>Total (Mar 2020 - Jan 2025)</b>	<b>2066.14</b>	<b>228.76</b>	<b>Total (Mar 2020 - Jan 2025)</b>	<b>4255.03</b>	<b>503.03</b>

\*When the impact of COVID-19 related unemployment occurs, a proportion of the distressed population in work shift to being unemployed, and the attributed costs shift accordingly, resulting in an initially negative productivity cost attributable to deteriorating mental health. As the full impact of COVID-19 is felt, the effect of increasing distress in the employed population more than offsets the shift in costs due to job loss, and productivity costs due to poor mental health increase rapidly.

Investment is needed to leverage existing work of the new University of Sydney, Brain and Mind Centre, Centre for Mental Wealth who are developing a national model capable of guiding Federal Government decision making over the near and longer term. Regional variation in productivity losses necessitates the additional customisation of the national model to 8-12 representative regions across the country.

# Assumptions

The cost of productivity losses included in the estimates provided are:

- Cost of lost productivity per month unemployed directly attributable to COVID-19
- Premature death due to increased psychological distress and suicide
- Absenteeism and presenteeism of those in employment as a result of moderate to high/very high psychological distress
- Lost productivity due to hospitalisation
- Lost productivity among carers of those affected by high/very high psychological distress.

These estimates are NOT the full productivity impacts from COVID-19 on the economy, but a subset related to increased mental health impacts.

The estimates provided above are conservative as they:

- a. do not yet account for the impacts of education and training losses on future productivity;
- b. have not yet factored in 'underemployment' i.e. where businesses and households who remain employed are less productive due to lockdown, disruptions to normal life and work patterns, and balancing multiple competing demands. 'Underemployment' figures are uncertain currently but are likely to be significant; and
- c. represent a conservative 'Frictional Capital Approach' (where the costs to business are only incurred for an average of 3 months following a suicide death as opposed to capturing the cost of a productive life lost to suicide).

Discount rate used: 5% per annum

Key uncertainties are the health sector response to the COVID-19 crisis and speed of economic recovery.