



Right care, First time, Where you live

SUMMARY OF WORKSHOP 1

SITE: WENTWORTH
HEALTHCARE
REGION: NEPEAN BLUE
MOUNTAINS
LOCATION: WINDSOR



FRIDAY
5TH APRIL 2024



THE UNIVERSITY OF
SYDNEY
—
Brain and Mind
Centre

Right care, first time, where you live Youth Mental Health Systems Modelling Workshop 1

DATE: 5th April 2024

TIME: 9.30am-1/ 1.30pm

VENUE: Crown Plaza Hawkesbury



Time	Item
09:00-9:30	Arrival, registration and tea/coffee
09:30-10:15	Welcome, Overview of Program aims and Objectives <ul style="list-style-type: none">• Welcome• Welcome to Country• Acknowledgement of lived experience• House keeping• Welcome from Wentworth Healthcare• Overview and aim of the Program
10:15-10:35	Session 1: Setting the scene and defining the youth mental health system in Nepean Blue Mountains region
10:35-10:45	Session 2: Introduction to Systems Modelling <ul style="list-style-type: none">• What is dynamic simulation modelling and how can it help?
10:45-10:55	Session 3: How the Economics will contribute to the modelling
11:00-11:20	Morning Tea
11:20-11:30	Session 4: Introduction to the architecture, tools and symbols of system dynamics modelling <ul style="list-style-type: none">• Introducing the concepts & symbols
11:30-13:00	Session 5: Participatory mapping exercise (activity) <ul style="list-style-type: none">• Interactive system mapping
13:00-13:30	Lunch

Overview Nepean Blue Mountains Region

The Wentworth Healthcare who deliver the PHN program in the Nepean Blue Mountains region supports the primary healthcare needs of over 360,000 people. The current population of 372,199 people living in the region is expected to increase by 25%, or to 466,650 people, by 2036. Of the current population, 3.7% are Aboriginal and Torres Strait Islander which is higher than the NSW state average of 2.9%. Four local government areas (LGAs) make up the Nepean Blue Mountains district including Blue Mountains, Hawkesbury, Lithgow, and Penrith. 19.7% of people are born overseas, out of the total population, 23.3% are in Penrith, 17.4% in Blue Mountains, 13.3% in Hawkesbury and 10.1% in Lithgow LGAs. Wide disparities in levels of socio-economic advantage and disadvantage are experienced within our region's LGAs with Lithgow having high levels of disadvantage and some areas of extreme disadvantage.



Significant difficulties and hurdles exist in the Nepean Blue Mountains area for young people seeking mental health care. The demand for improved mental health services is high, with around 1 in 10 people in the area reporting high to very high levels of psychological distress. Hospitalisations and deaths due to self-harm is higher in the Nepean Blue Mountains area than the state average. Social and geographical isolation is a major factor excluding people from community participation and is contributing to poorer mental health. As per the Wentworth Healthcare Mental Health and Suicide Prevention Foundation Plan 2019/2020, around 23.2% of the population is at risk of mental illness or requires early intervention, 9% have mild mental illness, 4.6% have moderate mental illness, and 3.1% have severe mental illness. Available population health data overall indicates the Nepean Blue Mountains region has a higher burden of mental illness and suicide compared to NSW. Overall, 17.2% of adults report high or very high psychological distress. The region also experiences relatively high rates of suicide. The

46 deaths (12.5 per 100,000 persons) from suicide in the region in 2016 was the highest

among metropolitan LHDs in NSW. The region experiences relatively high rates of self-harm, with hospitalisations for self-harm higher than the NSW state average. Furthermore, the Nepean Blue Mountains area has been greatly impacted by natural disasters in the past decade, which could contribute an additional burden to the mental health of young people in the region.

The difficulties and obstacles young people face while seeking mental health care in the Nepean Blue Mountains must be urgently addressed. By making use of the systems modelling results, we may work to create a more inclusive and functional mental health system that caters to the requirements of the area's young population.

The Right care, first time, where you live Program

The University of Sydney's Brain and Mind Centre is collaborating with Wentworth Healthcare and the Nepean Blue Mountains community to identify and respond to the unique needs of young people by co-developing a decision support tool using systems modelling.



Planning using dynamic systems modelling

The first phase of the Right care, first time, where you live Program is focused on strategic planning. Using a participatory systems modelling approach the service system and key social determinants are modelled to understand the drivers of youth mental health outcomes in the region. Complex systems have dynamic interactions that need to be understood to ensure that policymakers and commissioning bodies can invest in improvements that are likely to deliver the greatest improvements and avoid unintended consequences.

The process is undertaken with local communities to ensure the modelled system reflects the components and dynamics of the real-world system. The Program brings together the community from not only the health sector but also education, social welfare, and other

interacting sectors alongside young people with lived experience of mental health challenges to define how to improve youth mental health outcomes for the region.

This process brings the community together over three workshops, identifies the components and flows within the system, the challenges, and supports people to work on common, evidence-informed, strategic solutions (the precursors to effective action).

Combining the current service system, problems and barriers and using sophisticated systems modelling and simulation to project future mental health trajectories, allows young people, commissioning bodies, policymakers and advocates to test possible solutions before significant financial investment. It helps stakeholders understand what combination of programs, services or system reforms are likely to deliver the largest impacts and support young people to thrive in their communities.

Health economics



Health economics allows policymakers, commissioning bodies and advocates to look at what the relative gain is for dollars spent on services and systems. Health economics integrated into dynamic models allows users to see how health benefits and costs accumulate over time and how multiple programs and systems compare against each other and combined.

Health economics allows for a transparent conversation about not only the most cost-effective options but also with greatest social returns and outcomes for young people.

Right care, first time, where you live is not a short-term program. The sustainability of this program is critical. Embedding this program within local governance systems and processes is needed to continuously improve and refine the decision-support tools over the long term. This Program is a resource to support communities in the long term and inform what programs and initiatives are

funded and implemented, how care is conducted, and how care is coordinated to ensure it is person-centric for young people and their families in the places in which they live.

Purpose and outcomes for Workshop 1

The main objectives for workshop 1 were as follows and will be expanded in this report.

1. To present an overview of the epidemiology and lived experience of mental health issues and suicidal behaviour relevant to the Nepean Blue Mountains region.
2. To introduce systems modelling to the workshop participants to facilitate meaningful engagement in the model development process.
3. To co-develop a conceptual map of the main drivers of mental health issues for young people in the Nepean Blue Mountains region including the mental health system that drives those outcomes. This will shape model development.



Outcomes of interest

Throughout the workshop, participants were asked to consider the types of pathways, barriers and interventions that might influence specific youth mental health outcomes. The primary mental health outcomes being addressed as part of this research Program were:

- Youth psychological distress
- Youth mental disorder
- Youth suicide deaths
- Youth mental health presentations at emergency departments
- Youth self-harm hospitalisations
- Youth not in employment, education, or training (NEET)



Mapping the Nepean Blue Mountains youth mental health service system

The Nepean Blue Mountains youth mental health system was mapped out by the workshop participants with robust conversations about the links between each of the parts of the system and how a young person might navigate it. (Figure 1).

Participants also spoke at length about various barriers in the system, factors that increase and decrease flows along service pathways as well as any additions to the model structure (Figure 2). These maps, along with notes of the discussion will be synthesised with available literature and data over the coming months to produce a draft systems model that will be presented at the second workshop to participants. Participants may be contacted to provide more specific information regarding service pathways, influencing factors, and available data to assist the University of Sydney team with developing and quantifying the model.



Figure 1

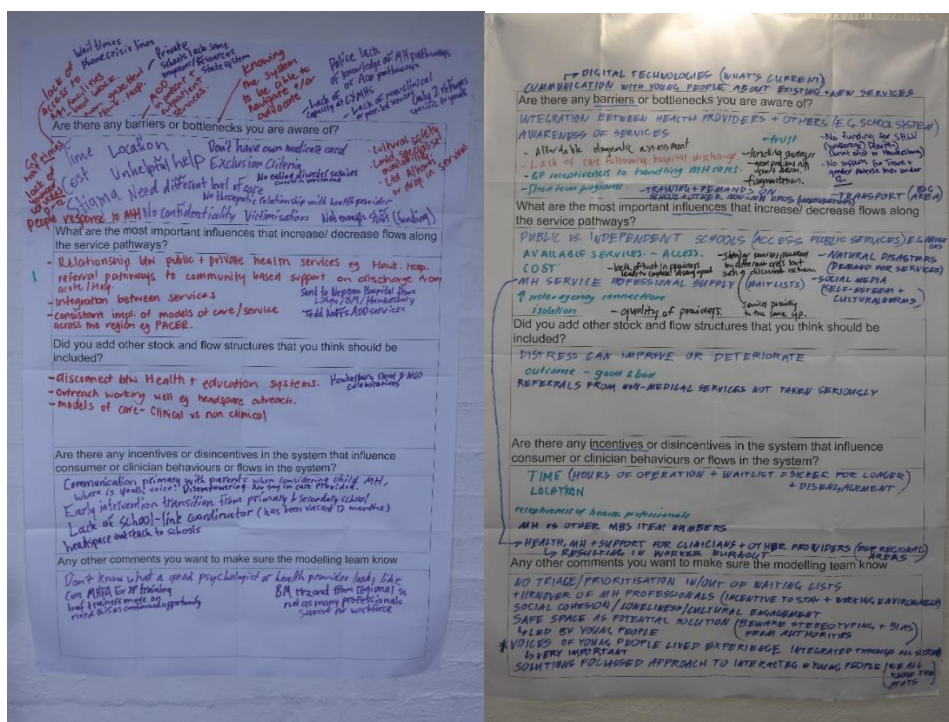


Figure 2

Key issues raised and discussed for consideration in the model.

There were repeated conversations from workshop participants about key areas for consideration in the model:

- Impact of disasters on the psychological distress of young people
- System navigation and access across different LGAs
- Disconnection between health and other sectors (e.g. education)
- Wait times.
- Short term programs
- Staff turnover
- Voice of lived experience in determining solutions.

Interventions for inclusion in the model

During Workshop 1, participants were walked through the various elements within the systems model (e.g. services capacity growth, what if scenarios and interventions). In between the workshops, participants will be asked to vote for their top 6 interventions for inclusion in the first iteration of the model. Please click the following link to vote [LINK](#)



The prioritised interventions from the workshop participants will be presented at Workshop 2 for further refinement by workshop participants.

Natural disasters in the region (fires, floods, plague, COVID) were highlighted as significantly impacting the psychological distress of young people in the region. This will be taken into account when building the bespoke model for this region.

Data needs

A wide variety of data types are combined in systems models. The data sets may include both secondary data gathered from public domain and original data (inputs or feedback) gathered from participants. The specific data needs are determined through the model building process and essential data to parameterise and calibrate the model will be collated as the modelling progresses with the Program partners.

Over the coming months as the University of Sydney modelling team builds the model, the specific data, and the format in which it is needed will be discussed. Support for this process will be undertaken by a model development group with input from local data custodians, health planning positions and young people with lived experience. The model will require data input from a variety of agencies, particularly health, education, primary health services and hospitals to reflect the mental health system and key outcomes. The different contributions participants

make based on their expertise will be equally important in understanding the local characteristics and barriers in the system. Participants may be contacted via email regarding data contributions.

These contributions will enable the University of Sydney modelling team to continue to develop the model using available local data. Stakeholders are welcomed and encouraged to provide further advice, input, and feedback in between the workshops over the coming months.

Workshop 1 attendance list

We are grateful to the large group of participants who were able to make it to the workshop despite the torrential weather for their enormous contributions to Workshop 1. We hope that those unable to join us at workshop 1 may be able to join us for the second workshop. Below is a list of the organisations and groups represented at the workshop:

Young people with lived experience, Wentworth Healthcare, Nepean Blue Mountains Local Health District, Department of Education, General practitioners, MYST, Catholic education, Barnardos, Youth employment services, Headspace (Hawkesbury, Lithgow, Penrith), St John of God Hospital, Lifeline, Ted Noffs, Bligh Park Community Service, Hawkesbury Community Service, Blue Mountains Council, Private practitioners, Springwood neighbourhood centres, Head to Health, Wellways, My Power Foundations, Abstract supports, Nepean Blue Mountains Women's Domestic Violence Court Advocacy Service,

Engagement with young people with lived experience

Young people with a lived experience of mental health issues are a crucial element in ensuring that the model developed for the Nepean Blue Mountains region is reflective of the true experiences of people who utilise the system.

To ensure that young people authentically engage with the systems modelling process and their voices are heard, many steps have been taken by both Wentworth Healthcare and The University of Sydney, including:



- Information sessions (four face-to-face and 1 online) for young people to meet each other and be informed about the program before the first workshop.
- Reimbursement for time attending workshops.
- Workshop wellbeing inclusions such as a quiet room, sensory toys and mandalas, dedicated support workers to support all attendees.

Wentworth Healthcare and the University of Sydney are committed to making sure that the interaction with young people is genuine and consistent throughout all upcoming sessions.

Next steps

Development of a working base model

In the lead-up to Workshop 2, the University of Sydney team and Wentworth Healthcare will undertake additional engagement to ensure:

- Stakeholders will be sent a list of interventions to prioritise for inclusion in the first iteration of the model
- Key stakeholder groups (especially those with lived experience) are informed about the modelling process and how they can contribute and participate to the program.
- Gaps in the initial maps developed during Workshop 1 can be identified before Workshop 2
- The University of Sydney team can deliver a working base model for feedback and critique by the participants at Workshop 2.

Workshop 2 and 3

Workshop 2: Friday 9th August 2024

Workshop 3: Friday 18th October 2024

These workshops will be held at Penrith Panthers Leagues Club 123 Mulgoa Rd, Penrith NSW 2750

We would like to thank you again to those that were able to come to the workshop even with the extreme weather conditions and thank you for allowing us to reduce the time of the workshop to ensure everyone was able to get home safely.

We appreciate your ongoing engagement in this Program and we look forward to seeing you again at Workshops 2 and 3.