

CAPABILITY STATEMENT

Mental Health in Climate Change Transdisciplinary Research Network



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

About Us

The University of Queensland's **Mental Health in Climate Change Transdisciplinary Research Network (MHCC-TRN)** was established in late 2019 to help government agencies, community groups, and other organisations respond to the mental health and wellbeing challenges associated with a changing climate.

Environmental disasters such as floods, bushfires, cyclones, storms, prolonged heat, and drought, can cause significant distress for individuals and communities, and subsequently affect their physical and mental health.

There has been little evidence about the burden of a changing climate on mental health. Further transdisciplinary research is required to better guide policymakers, health service planners, and communities in developing and implementing interventions that successfully support affected individuals and communities.

This transdisciplinary network brings together academics from a range of disciplines across UQ, as well as industry partners, government agencies, and community organisations. Its mission is to understand the challenges faced by those impacted and develop much needed research that will serve as evidence base for interventions, tools, and policies to improve mental health outcomes in communities.



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Research Objectives

- 1. To understand the experience, distribution and determinants of mental illness/poor social and emotional wellbeing in the age of climate change.**
 - Explore, characterise, and quantify the full range of (short-, medium-, and long-term) mental health outcomes and emotional experiences associated with a changing climate, and identify which are most significant for communities
 - Understand how social/political/institutional forces shape emotional wellbeing, vulnerability, and resilience
 - Develop an appropriate and validated measure of the social and wellbeing impacts of a changing climate
- 2. To conceptualise the systems underpinning social and emotional wellbeing in the age of climate change.**
 - Explore, define, and quantify pathways and mediating factors connecting changing climate exposures and mental health outcomes
 - Qualitatively identify critical points for intervention that can be quantitatively tested
 - Develop a model, which can be iteratively refined, where the most viable points for intervention can be tested prior to implementation and where scenarios can be run to help service planning on the ground
- 3. To develop interventions to harness the political importance of emotional responses to a changing climate, while optimising the social and emotional wellbeing of communities in the age of climate change.**
 - Explore existing community and psychosocial interventions for social and emotional wellbeing in the context of changing climate, and critically analyse their inclusivity, feasibility, effectiveness, and benefits
 - Develop novel interventions where gaps exist
 - Analyse and assess the co-benefits of taking action
- 4. To inductively understand and quantify the benefits of addressing the social, emotional, and mental health harms associated with climate change.**
 - Analyse and assess the inclusivity, feasibility, effectiveness, and benefits of existing and novel community and psychosocial interventions for social and emotional wellbeing in the context of a changing climate
 - Explore, understand, and quantify the benefits of intervening to reduce the social and emotional effects, including mental health harms, associated with a changing climate
- 5. To translate knowledge into policy and practice through research with in-built impact to improve social and emotional wellbeing in the age of climate change.**
 - Work with key stakeholders to develop research-based translation strategies that consider optimal mechanisms in context for policy and practice change.
 - Understand how social and emotional wellbeing shapes changing climate decision-making across sectors and evaluate the impacts of decision-making on mental health.

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Projects Underway

A systematic review of mental health and climate change

A/Prof Fiona Charlson

The scoping review assessed the available literature related to climate change and mental health against the World Health Organisation's (WHO) five global research priorities for protecting human health from climate change.

A system dynamics model for understanding poor mental health outcomes among rural Queenslanders

A/Professor Fiona Charlson and Dr Craig Jacobson

This project aims to evaluate existing and new intervention targets for reducing poor mental health outcomes among rural Queenslanders.

The sexual health of queer young people in Queensland

A/Prof Lisa Fitzgerald, Prof Lisa McDaid, A/Prof Allyson Mutch, Dr Judith Dean, Chris Prickard

Although focused on sexual health, the project will interview 60 young queer people throughout Queensland to understand their mental health and wellbeing and gain their perspectives on active citizenship and forms of activism, communities of identity, and climate change.

PhD Projects Underway

- The effects of climate change on youth mental health: *Tara Crandon*
- Adaptive distress or maladaptive disconnect? How individuals cope with the threat of climate change: *Carla Magi-Prowse*
- Heat island impacts and community health: The importance of Urban form: *Renuka Bhoge*

Available PhD Projects (funding available)

- Exploring the development of community-based interventions to mitigate the mental health impacts of climate change.

Contact A/Prof Fiona Charlson, f.charlson@uq.edu.au

- Climate Change and its Health Impacts in Cities - a range of available projects.

Contact Dr Sara Alidoust, s.alidoust@uq.edu.au



Case study

SPOTLIGHT ON STANTHORPE

Researchers from our network are currently working in the community of Stanthorpe, Queensland, to develop a prototype digital simulation tool to assess mental health outcomes associated with environmental disasters. Stanthorpe has been chosen for this pilot project as the community has been heavily impacted by numerous environmental disasters associated with a changing climate including prolonged drought, running out of drinking water, bushfires, severe storms, and COVID-19. These events have come in rapid succession and are stretching the community to breaking point.

The digital simulation tool will equip local councils and other agencies to make evidence-based choices about how they should direct resources for the greatest benefit.

The tool will support assessment of the mental health needs of a community following a natural disaster, identify ideal points for intervention, allow the simulation of mental health interventions on the community prior to implementation, and inform decision-making about the mental health responses most likely to be effective.

NETWORK MEMBERS



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Dr Sara Alidoust
School of Earth and Environmental Sciences, UQ

- Planning healthy cities
- Social sustainability and community wellbeing
- Age-friendly planning
- Stakeholder consultation & participatory planning

Emerging housing models
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Dr Craig Jacobson
Queensland Centre for Mental Health Research and
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- System dynamics modelling of mental health outcomes
- Process engineering
- Statistical modelling
- Addressing wicked problems

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A/Professor Fiona Charlson
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- Epidemiology
- Burden of disease
- Mental health services research
- Program evaluation
- Global mental health policy

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- Applied Microeconometrics
- Health Economics
- Mental Health and Wellbeing
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- Nature-based interventions for health and wellbeing

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- Household behaviour
- Behavioural responses to information and financial incentives
- Unintended effects of environmental policy

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Professor Kelly Fielding
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- Environmental communication
- Sustainable urban water management
- Climate change beliefs and action
- Pro-environmental action

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- Indigenous health
- Climate change and health
- Water, sanitation and hygiene (WASH)
- Sustainable development

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A/Professor Lisa Fitzgerald
School of Public Health, UQ

- Qualitative longitudinal research
- Social determinants of health
- Community and participatory methods/co-design

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Professor Lisa McDaid
Institute for Social Science Research, UQ

- Solution-focused social science and health
- Health inequalities
- Intervention development and evaluation
- Community participative research
- Salutogenesis and assets-based interventions
- Syndemics

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- The benefits of interacting with nature
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