

# Human Health and Social Impacts Node

Building climate resilience through policy-engaged mental health research



**While the most immediate effects of flooding are well documented, the longer-term effects of floods are not as well understood.**

Photo: iStock/Davidf

Rainfall from ex-Tropical Cyclone Debbie in late March to early April 2017 resulted in unprecedented water rises in the Tweed and Wilson Rivers that affected many residents in the Northern Rivers area of New South Wales. Almost all the extreme rainfall from ex-Tropical Cyclone Debbie fell within 24 hours. There is high confidence that the intensity of extreme rainfall experienced in eastern Australia, including northern NSW will increase due to global warming.

Floods have significant negative health and social impacts on people of all ages. While the most immediate effects of flooding (injuries, infections, chemical hazards, and disruption to health and social services) are well documented,

the longer-term effects of floods are less understood (Alderman et al. 2012). There are several risk factors linked to psychosocial health issues following natural disasters such as the degree of exposure, previous flood experience and disaster preparedness. Prevalence of depression, anxiety and post-traumatic stress have been associated with flooding (Waite et al. 2017).

This cross-sectional study will examine the mental health and wellbeing of communities in the Northern Rivers region six months following flooding in April 2017.

## Research outcomes

From the survey analysis, we expect information on:

- the mental wellbeing needs of different sectors of the community following the natural disaster event, including vulnerable groups
- if these needs were met (fully, partially, not) and the contribution of government, community and insurance responses to meeting or not meeting those needs
- the association between community resilience and wellbeing of the community and key interest groups, including vulnerable populations.

We will use the findings to inform the design of qualitative case-studies and a prospective sample study to examine the medium to long-term flood impact including the role of resilience and adaptive capacities of communities to respond to disaster events.

## Who will use this information?

- Local government
- Northern NSW Local Health District
- Emergency services
- Office of Emergency Management
- NSW Rural Assistance Authority
- NSW Department of Industry
- Northern Rivers NSW Business Chamber
- Universities
- Non-governmental organisations
- Primary Health Network.

## References

Alderman K, Turner LR, and Tong S 2012, Floods and human health: A systematic review in *Environment International*, 47: p. 37-47.

Waite TD, et al. 2017, The English national cohort study of flooding and health: cross-sectional analysis of mental health outcomes at year one in *BMC Public Health*, 17(1): p. 129.

## Human Health and Social Impacts Node

Building on current sources of health and climate change information, the Human Health and Social Impacts Node will support the NSW Government by:

1. delivering robust, sector specific information targeting the health system, vulnerable communities and government agencies
2. establishing baselines for monitoring, evaluation and analysis of adaptation programs that seek to protect and promote health, and strengthen the delivery of health services, in the face of a changing climate
3. improving understanding of vulnerability in the context of exposure, sensitivity and adaptive capacity
4. providing practical information on building resilience in communities and in the health sector.

The work program of the Node is informed by eco-social understandings of relationships between climate change and health. The approach taken acknowledges the range of environmental, social and economic consequences of climate change, including regional variation in impacts and vulnerability.

### The Node is a partnership between:

- **Department of Planning, Industry and Environment**
- **University of Sydney**
- **NSW Health**

## More information

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