

# Housing and Health Trajectories Post Natural Disaster Events

Ang Li and Rebecca Bentley

NHMRC Centre of Research Excellence in Healthy Housing, Centre for Health Policy, Melbourne School of Population and Global Health, Faculty of Medicine, Dentistry and Health Sciences, The University of Melbourne

Email: [angli5@unimelb.edu.au](mailto:angli5@unimelb.edu.au) Twitter: @ANGLIhere



## Question

### How do people fare after the disaster?

- What are people's **housing** trajectories after experiencing an extreme weather event (flood, bushfire or cyclone) over time?
- What is the short- and long-term impact of these natural disaster events on people's **social, emotional and mental wellbeing**?

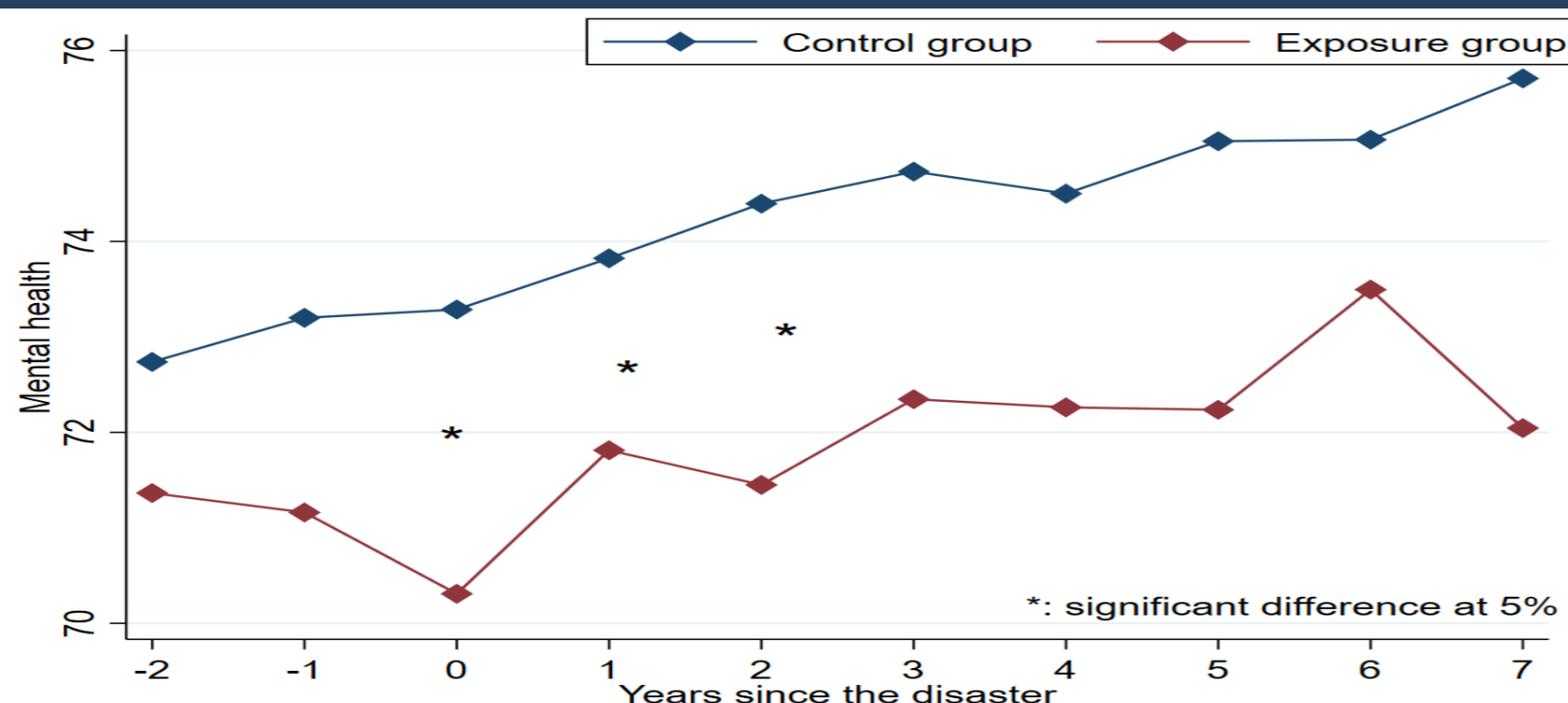
## Background

- Extreme weather disasters have profound health consequences and can result in damage to people's homes destabilising their recovery from the event.
- Disaster research and planning have not yet adequately considered housing in restoration and recovery trajectories (Hamideh et al. 2021).
- Existing studies on health impact largely lack control for pre-disaster or counterfactual outcomes (Kino et al. 2021).

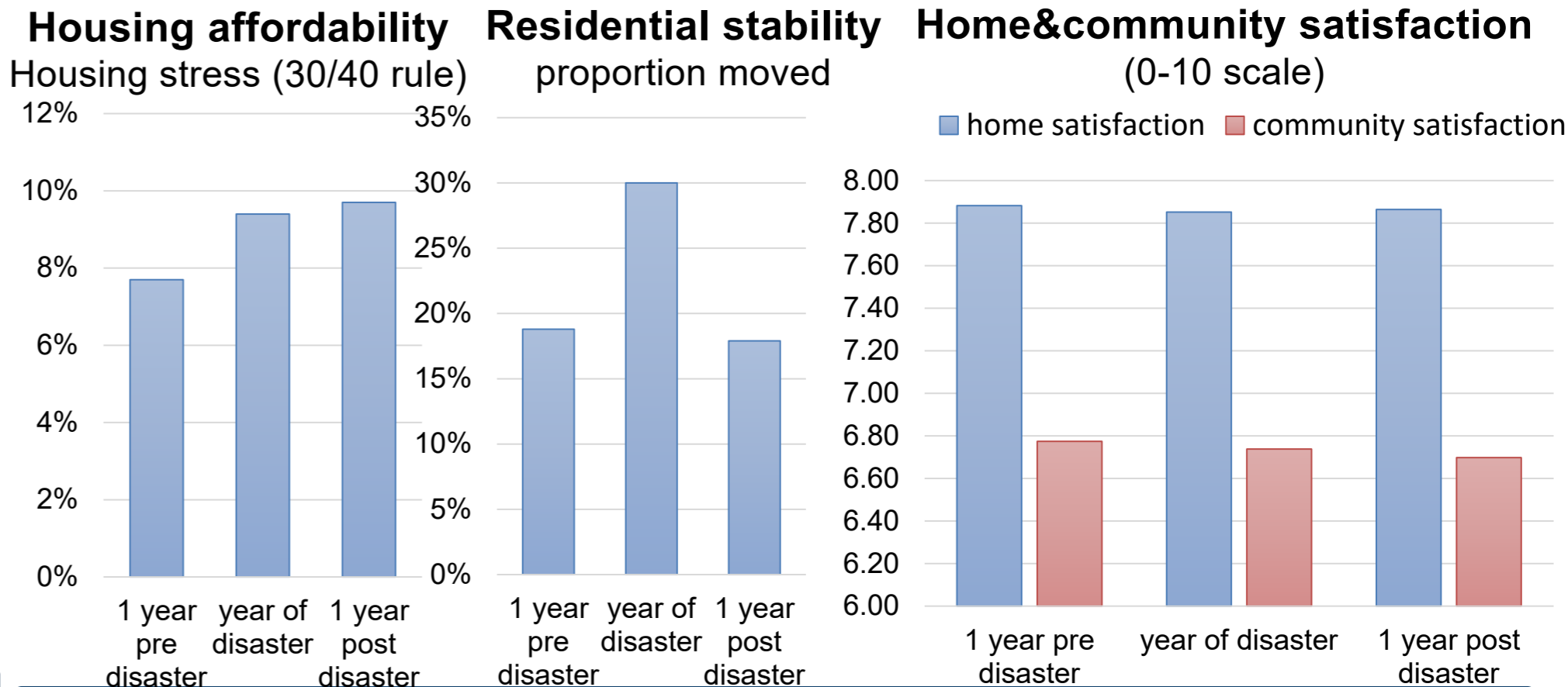
## Method

- Data: Household, Income and Labour Dynamics survey in Australia, 2009-19
- Exposure group: A weather related disaster (flood, bushfire, or cyclone) damaged or destroyed home
- Control group: 1:1 matching without replacement based on  $X_{it-1}$
- Covariates: demographic, socioeconomic, housing, health and locational factors
- $wellbeing_{it} = \sum_{k \in K} \delta_k D_{it}^k + \alpha X_{0i} + \theta_t$ , where  $D_{it}^k$  is a dummy equal to 1 in the kth period prior to or following the disaster (k=0 indicates the disaster year)

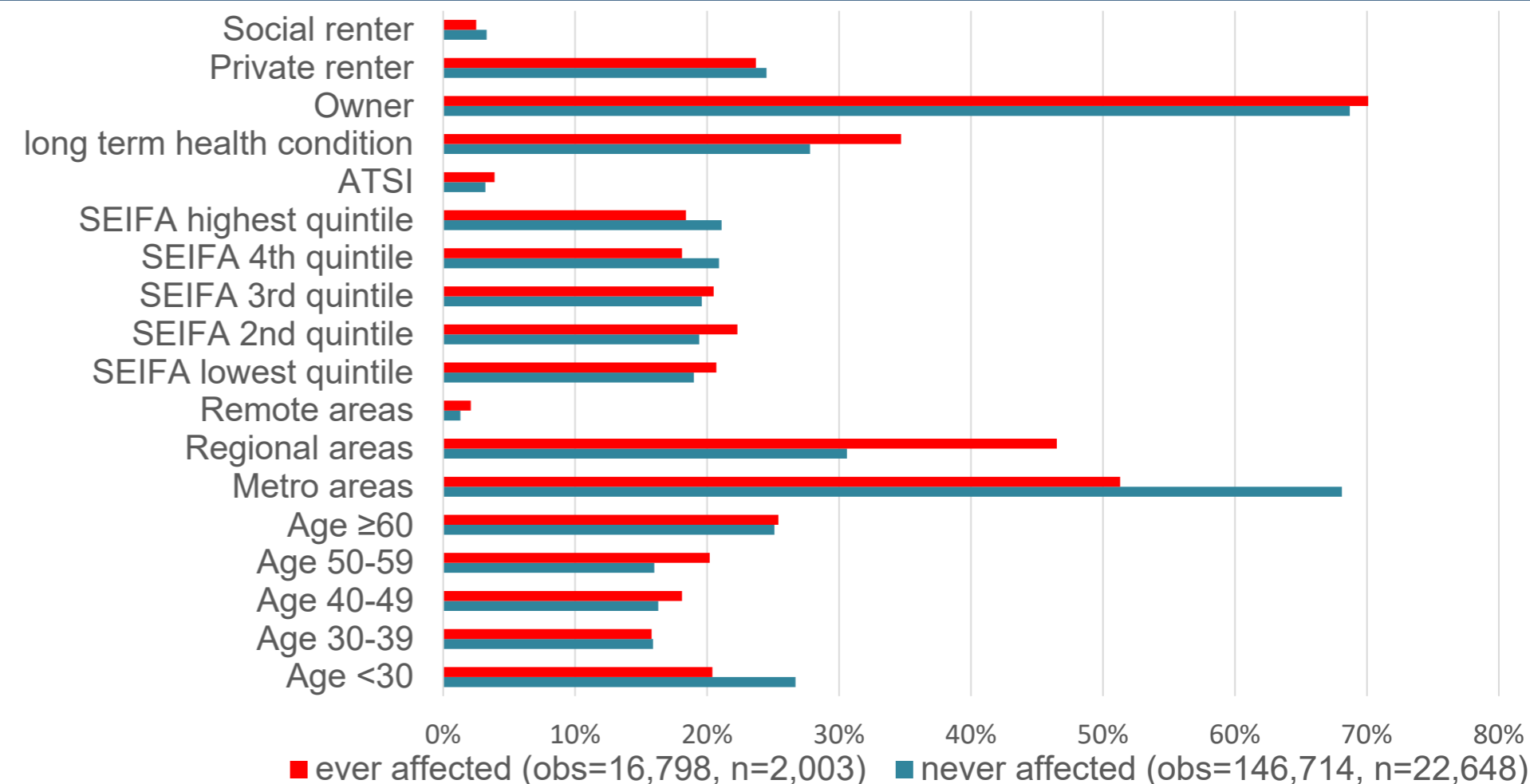
## Mental health among affected and unaffected population



## Housing prior to, during and post disaster



## Groups most at risk



## Discussion

- Natural disasters impact most on socio-economically vulnerable groups. The protective potential of assistance with housing following disasters warrants more research attention.