

# Community Recovery After Flood Survey – Impact on Mental Health

Professor Ross Bailie

UCRH is a collaborating Centre between:

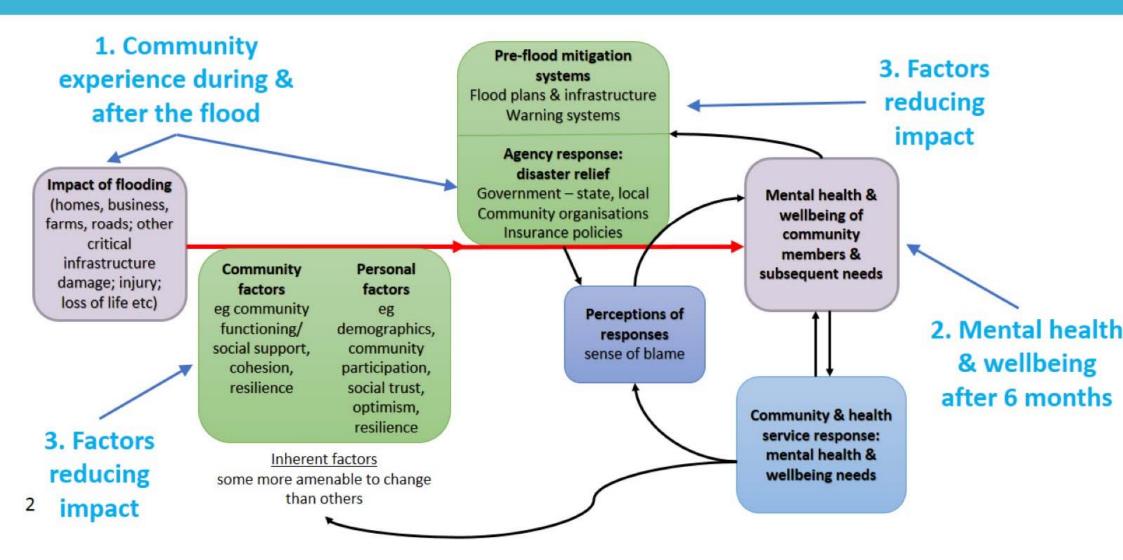


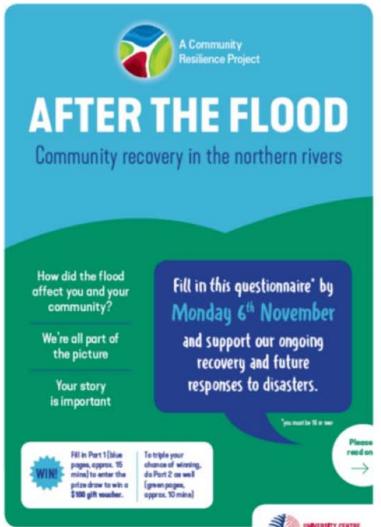






## Community Recovery after Flood Survey – impact on mental health





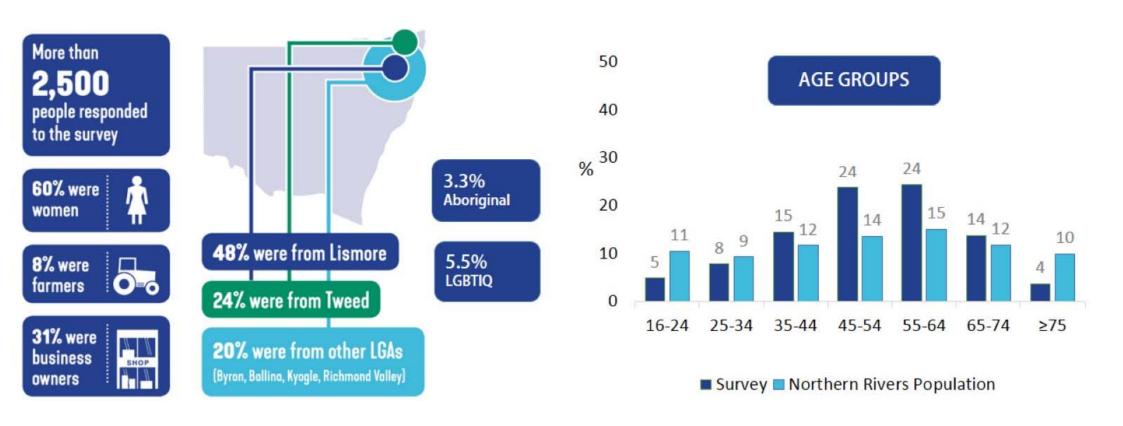
This research is heling conducted by the University Centre for Rural Health in partnership with community organisations and state and local government.  Northern Rivers (6 LGAs) ~200,000 pop everyone ≥16 years

 key groups: people living with disadvantage, farmers, business owners, older people (+75), younger people (<25), Indigenous community, LGBTIQ community</li>

 online & paper-based + door-to-door in worst affected areas of Lismore and Murwillumbah

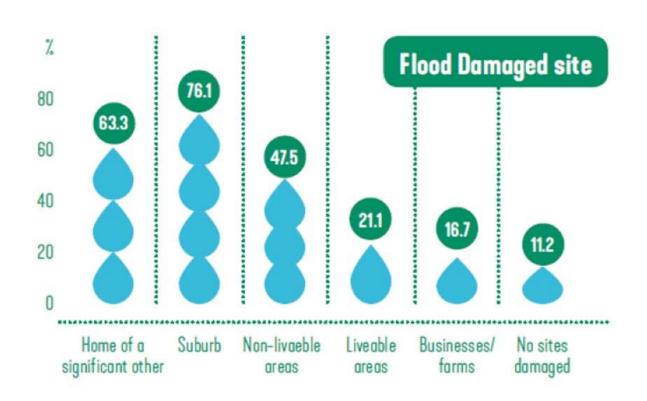


## ... who took part in the survey?

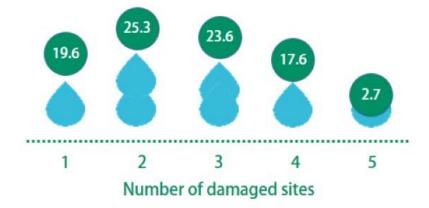


#### ... what was flooded?

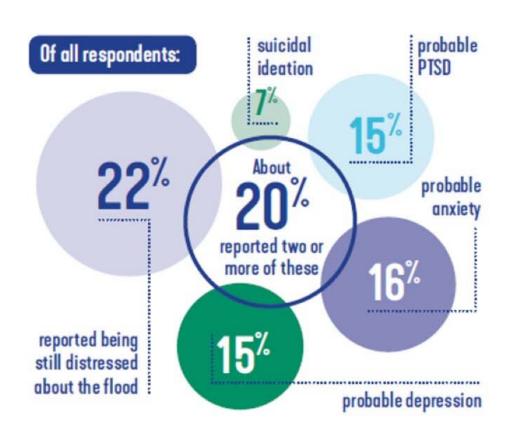
#### Almost all respondents reported some damage



Almost one half (44%) reported some damage in 3 or more sites

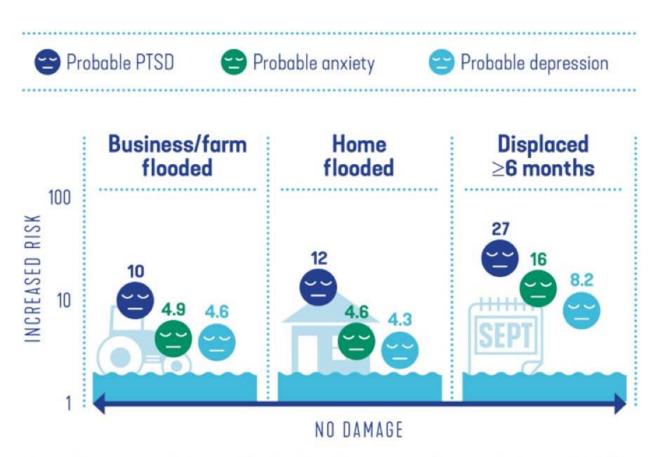


# ... how respondents were affected





#### ... flood & mental health risk



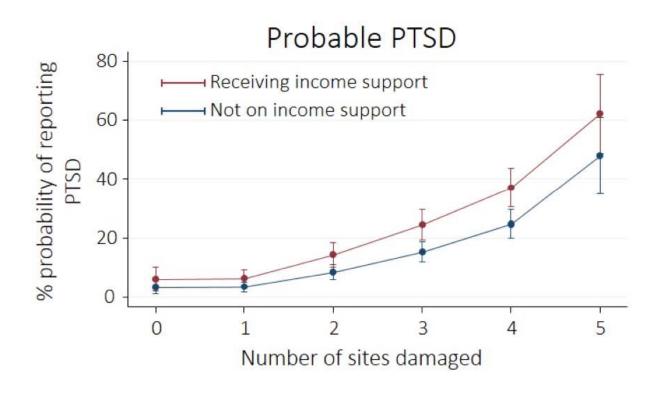
Compared to no damage, higher risk for respondents:

- whose properties were flooded
- who endured lengthy displacement

(after adjusting for age, sex, Indigeneity & indicators of disadvantage)

Logistic regression – adjusted odds ratio; all associations significant at p<0.001

#### ... flood & mental health risk



- PTSD risk increases with number of sites damaged
- Risk higher for respondents on income support payments

(44% respondents reported damage in ≥3 sites)

## ... socio-economic groups

#### Based on flood map & ABS data – 2017 flood footprint

(Thanks to NSW Office of Environment & Heritage for provision of flood maps)

						Greater
					Northern	Sydney
	Lismore		Tweed		Rivers**	Region
	(N=4,982)*		(N=8,212)*		(N=239,604)	(N=~5 mil)
	n	%	n	%	%	%
1st (lowest)	<b>4,</b> 076	81.8	3,826	47.0	26.5	15.7
2 <sup>nd</sup>	390	7.8	1,438	17.5	28.5	16.0
3 <sup>rd</sup>	367	7.4	2,615	31.8	25.8	18.2
4 <sup>th</sup>	89	1.8	297	3.6	15.5	22.3
5 <sup>th</sup> (highest)	60	1.2	0	0	3.8	27.8

Majority of people directly affected in flooded areas come from lowest two socioeconomic groups - both in Lismore (90%) & Tweed region (64.5%).

<sup>\*</sup>Usual resident population, ABS 2016

<sup>\*\*</sup>Richmond-Tweed SA4

Outcomes Flood damage (unadjusted odds ratios)	Low income level n=835 (<\$50K vs ≥\$50K)	Aboriginal community n=83 (vs non-Indigenous)	LGBTIQ community n=139 (vs non-LGBTIQ)				
Home flooded	2.31**	2.35**	2.15**				
Evacuated from home	2.64**	2.89**	2.10**				
Displaced ≥6mths	3.50**	3.32**	2.10				
Mental health outcomes (adjusted odds ratios - taking into account degree of flood impact)							
PTSD	2.14**	2.28*	2.22**				
Anxiety	1.80**	2.70**	2.27**				
Depression	2.24**	2.76**	1.54				
Suicidal ideation	2.24**	0.89	2.69**				

<sup>\*</sup>p≤0.01 \*\* p≤0.001



### ... where to from here



- Continued community consultation:
  - · communicating and making sense of results
  - · current service gaps
  - · preparing for future events
  - priorities for future analysis/research/interventions
- Feedback to State politicians
- Further analysis of data –second half of the questionnaire (resilience), written comments
- Applying for funding, including for a longitudinal study



## Acknowledgements

# Thank you

- Community members
- Community Advisory Groups
- Funding agencies
- UCRH flood research team
- Survey piloters & doorknockers











