COMMUNITY UNDERSTANDING OF TSUNAMI RISK AND WARNINGS SYSTEMS IN AUSTRALIAN COMMUNITIES

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PREVIOUS RESEARCH: AUSTRALIA

- Sydney residents and coastal council workers (*n* = 30):
  - low perceived tsunami risk
  - Mixed and poor understanding of basic science of tsunami

  (Bird & Dominey-Howes, 2006)

- WA/NSW/QLD/Tas Coastal Communities (*n* = 648):
  - Good knowledge of the tsunami characteristics but moderate levels of misunderstanding regarding tsunami timing.
  - 98% described elements of the tsunami warning system
  - 89% unsure of official evacuation routes/or that they existed.

  (Johnston, Paton, Coomer & Frandsen, 2009)

- Tasmanian East Coast Communities (*n* = 135):
  - 15% respondents had adopted ANY preparedness measure. Linked to lack of risk perception.

  (Paton, Frandsen & Johnston, 2010)

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Aims:

- Identify the nature and origins of current community beliefs/knowledge of tsunami risk, tsunami warning systems and communications.

- Use findings to inform the development, implementation, and evaluation of tsunami risk communication, warnings systems and tsunami preparedness in Australia.

=>Explore potential for Tsunami and Coastal Hazard DRR

- Traditional community engagement strategies
- Communication technologies

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Outcomes:

- Evidence-based warning strategies and practices for at-risk communities
- Action Research Program: Evaluation of existing tsunami-related community engagement/education initiatives and their development to meet end-user agency needs.
  - Tsunami - The Ultimate Guide
  - TsunamiSafe

Findings and recommended strategies/practices delivered to Tsunami Advisory Group, Surf Life Saving Australia and NSW SES by October 2015.

VOLUNTEER STUDY

Participants: Coastal Community Volunteers (*n* =17)*

- Volunteers coastal recreation groups or groups that are involved in natural hazard mitigation and response

Who:

- Australian Red Cross/Surf Life Saving Australia/Coastcare
- Yet to be interviewed: Tasmanian SES/NSW SES

Where from:

- *Hobart surrounds & Eastern Coast, Tasmania*
- *Sydney surrounds & Moruya Heads, NSW*
- *Adelaide, SA*
- *Perth, WA*
- *Darwin, NT*

Analysis to be completed: Thematic Analysis

VOLUNTEER STUDY: MAIN RESEARCH QUESTIONS

1. How do coastal community volunteers perceive tsunamis and tsunami risk?

2. What are coastal community volunteers' understandings of tsunami warnings systems and risk communications?

3. What is the value of communication technologies such as SMS, internet, social media (Facebook, Twitter etcetera) in tsunami risk communication, warnings and preparedness according to interviewees?

INITIAL FINDINGS /ANECDOTES: KNOWLEDGE

- **Likelihood**: Unsure how likely that they or their community would be affected/ thought that is was very unlikely.

- **Knowledge came from** news stories of tsunami events such as the Boxing Day Tsunami (2004) and the Japan Tsunami (2010) in the mass media.

- For some knowledge came from: **Past experience** working or living in a tsunami affected area, **conversations** with friends affected by tsunami, their **university studies**, or through work within their **volunteer organisation**.

- **Tsunami: The Ultimate Guide and TsunamiSafe websites and resources** were not acknowledged as a source of information during the interviews.

INITIAL FINDINGS /ANECDOTES: WARNINGS

- People expected warnings to come from **a number of sources** with radio and SMS being the most commonly mentioned.
  - internet/social media/ word of mouth /television

- Although some acknowledged that **sirens** would be useful, none stated that they expected find out about a tsunami through hearing a siren.

- Some thought that tsunami warnings would be like those sent out by the **bushfire warning systems** based on personal experience and knowledge of systems. Specific information:
  - where
  - how long
  - where to evacuate to
  - locations of evacuation centres, etc.

INITIAL FINDINGS /ANECDOTES: WARNINGS

- Only 6 interviewees acknowledged either the **SES or BOM** as official sources of tsunami warning communications, with one acknowledging both.

- Most interviewees: Need **multiple ways of getting warnings out**, and they would seek multiple sources before acting on a tsunami warning.

- **Social media** as a means of communicating risk and receiving warning:
  - **Negative**: *Risk of spreading false information, people panicking and people trusting poor information/not trusting good information.*
  - **Positive**: *Inform a lot of people quickly about warning, take it more seriously than if it was heard from other sources particularly if people they trusted or knew shared warnings with them.*

INITIAL FINDINGS /ANECDOTES: RESPONSE

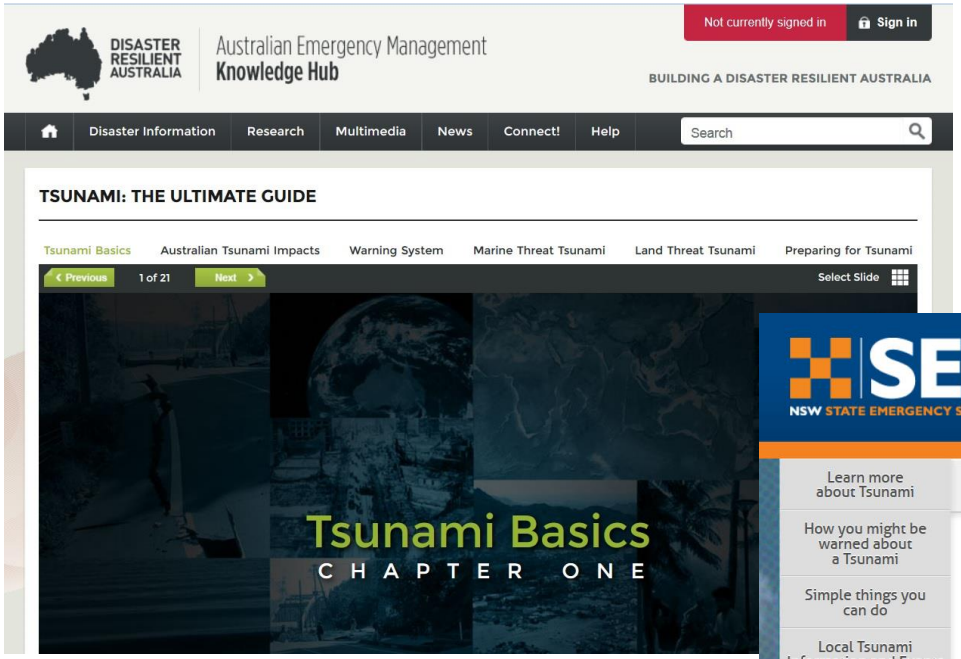
- It was perceived that warnings would provide enough time to for them respond to a tsunami threat.

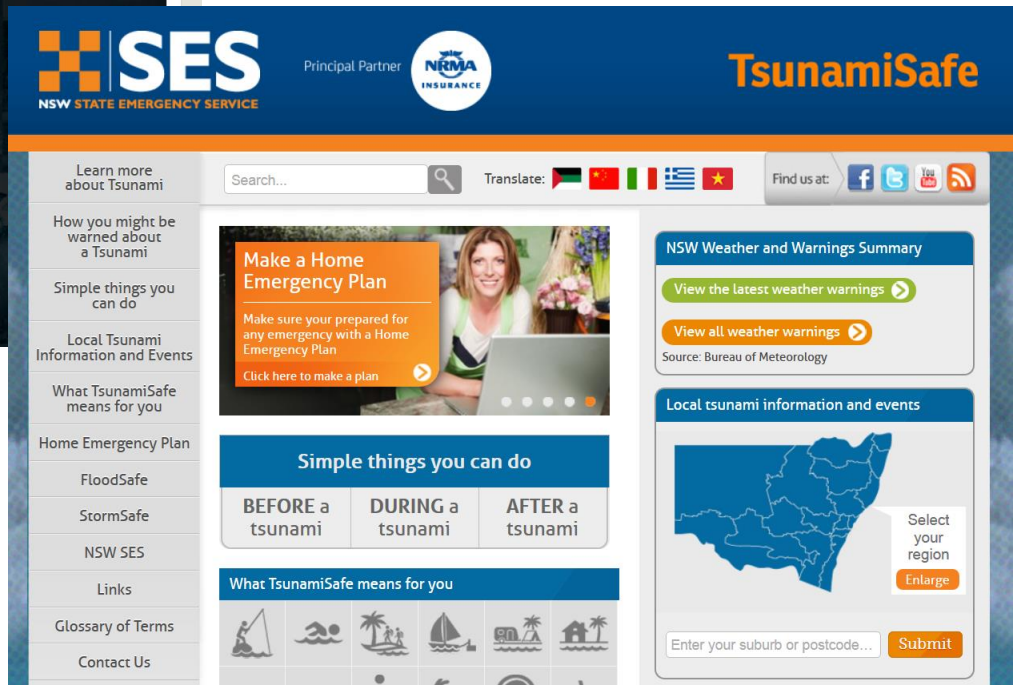
- **Warning times:** 20 mins - several hours. Some acknowledged this this time would variable. Depending on: Origin of event, and how quickly the event was identified.

- Interviewees estimated that around **30mins** was enough time for them to respond.
    - checking alternate information and warning sources
    - contact loved ones
    - check on their neighbours
    - gather together people/pets/personal items
    - evacuate

- **Issues affecting response**: A few acknowledged not being at home, potential traffic issues, and being separated from children.

ACTION RESEARCH PROGRAM





https://www. emknowledge.gov.au/connect/tsunami-the-ultimate-guide/#/

http://www.tsunamisafe.com.au/

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