



PROGRAM C


## Clearing the undergrowth

Shedding light on the factors that influence the decision to prepare for bushfires

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PROGRAM C : Clearing the undergrowth: factors that influence preparedness

### ⇒ Decisions, decisions, decisions...

- ⇒ Decision-making is the process by which an individual weighs the pros and cons of a particular choice
- ⇒ But some decisions are easily made, while others may not be as straight forward
  - ↳ the consequences of the choice we make largely determines the difficulty of the decision and how much effort we put into making the decision

**consequences?**

- ↳ understanding what influences an individual's decision to prepare for bushfire is important for risk communication

## ➔ What choice do we have?

- ➔ Making the choice to prepare for bushfire is difficult because a bad choice could have severe consequences
  - ↳ we know this because we've seen it, read about it or heard from friends or family
- ➔ Because the consequences could be bad, we want to make the best choice possible
  - ↳ is this based on the information we're given? Partly
- ➔ **BUT**, the consequences are only part of the story
- ➔ Our choice depends on intrinsic factors like who we are, our attitudes, our beliefs and our experiences
- ➔ But it is also based on extrinsic factors like the environment, who we associate with, and how highly we rate the risk of bushfire



Photo: Hobart Herald

## ➔ Decision-making and risk communication - 'fear in the right proportion'? (19<sup>th</sup> health worker)

- ➔ Risk communication is a targeted exchange of information about the possible effects of threatening events
- ➔ Does risk communication still rely on fear as it did historically?
- ➔ Much of the information about natural hazards like bushfires is provided through specialised agencies
- ➔ By outlining threats and how to deal with them, risk communicators aim to influence the decision-making process to increase the resilience of the receiver
- ➔ Risk communication information *hopefully* encourages the individual to make the safest choice
- ➔ Because of the nature of a bushfire, risk communication must target both the individual and the community



## ➔ What is effective bushfire risk communication?

- ➔ To best fight a bushfire, we must understand how it behaves, consumes fuel, and the weather conditions that encourage it
- ➔ Likewise, for effective bushfire risk communication, we must understand the factors that influence the way people make a decision
- ➔ What role does the community play?
  - ↳ Diffusion of risk information among community members
- ➔ Depends on the individual
  - ↳ how does the individual interpret the message (render it meaningful)?
  - ↳ how does the individual apply this information (do they understand it)?



## ➔ Diffusion of ideas in a community

- ➔ The nature of the community receiving risk communication information may influence the adoption of the message
- ➔ Bushfire preparedness ideas are not new, but they may be for the individual receiving them
  - ↳ good community support could help the message diffuse, and increase the adoption of protective behaviours
- ➔ The effectiveness of the risk communication message relies on how it is utilised and its movement through the target audience
  - ↳ how close is the community?
  - ↳ do they have a 'corporate knowledge' of bushfire?
- ➔ How does the unpredictability of bushfire influence the way community/individual incorporate risk information into their lives?



## ➔ What factors at the individual level influence the decision to prepare?

- ➔ Several important factors identified in the hazard preparedness literature (earthquakes, volcanoes *etc.*)

- ↳ intention to prepare
- ↳ risk perception
- ↳ critical awareness
- ↳ self efficacy
- ↳ outcome expectancy
- ↳ action coping



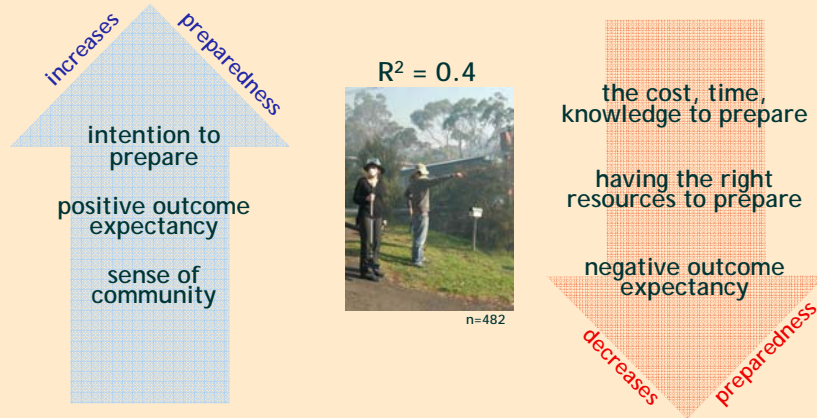
- ➔ How do these factors influence the preparedness of householders living on the urban fringe of Hobart?

## ➔ Preparedness for bushfires around Hobart

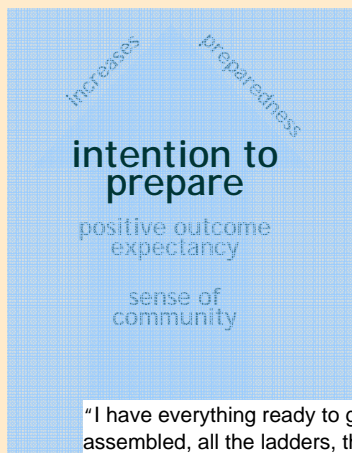
- ➔ 1525 questionnaires were distributed to households on the urban fringe of Hobart (12 localities)
- ➔ 482 questionnaires were completed (32% response)
- ➔ Men were more likely to complete the questionnaire (51.2%) than women (47.7%)
- ➔ The average age of all respondents was 51 years (ranging from 18 to 87 years)
- ➔ Most respondents owned their homes (90.7%), but some renters (8.1%) also completed the questionnaire
- ➔ 19 semi-structured telephone interviews were conducted to compliment this data



## ➔ What influences preparedness for bushfires in Hobart?



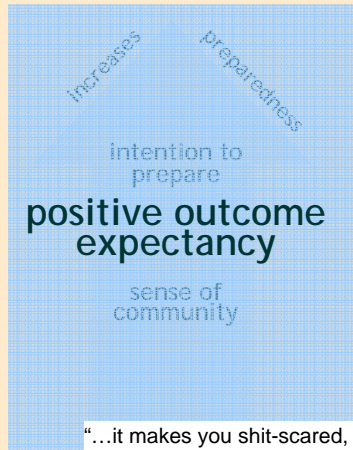
## ➔ What influences preparedness for bushfires?



- ➔ The most important factor predicting preparedness (accounts for 21% of variability)
- ➔ Individuals form their intention to prepare through a complex interaction between other factors including positive OE and Sense of Community.
- ➔ Effective risk communication must encourage individuals to form this intention to prepare
- ➔ Few people described preparing that was long term - most indicated that preparations would be made at the last minute
  - ↳ do people hedge their bets? Preparing to stay and defend vs leaving

"I have everything ready to go. All the towels are out, all my clothing is assembled, all the ladders, the sprinkler system is ready to go... and that's how I live most of the year". R

## ➔ What influences preparedness for bushfires?



- ➔ Does preparedness actually make a difference?
- ➔ These results suggest that if householders think that preparedness helps, they are more likely to undertake protective behaviours
- ➔ However, many people reported that this positivity would depend on the fire's severity
  - ↳ this drives the preparation bet-hedging
- ➔ Effective risk communication should focus on positive outcomes after fire
  - ↳ what have householders done that saved their property during a bushfire?

"...it makes you shit-scared, but at the same time if you're prepared I believe you can minimise the risk of harm to yourself and to your property". c

## ➔ What influences preparedness for bushfires?



- ➔ Effective preparedness for bushfires involves a mix of individual/household and community preparedness
- ➔ Established, close-knit communities, with residents who have lived there for some time and have a 'corporate knowledge' about bushfires that they actively pass on
  - ↳ promotes excellent collective preparedness
- ➔ Diffuse communities, where people don't know their neighbours show the opposite
  - ↳ if you don't know your neighbour, why help them?

"...if it wasn't for them I don't think we would have been nearly as proactive, like we probably wouldn't have done anything about it..." R

## ➔ What influences preparedness for bushfires?

"I'm always complaining that I don't have the time for these things, but I guess you should have time for important stuff like that". M

- ➔ Making recommended preparations is often expensive, time consuming or requires specific information
- ➔ Consequently, preparing is often conducted opportunistically
  - ↳ a water tank for drinking water can also act as an alternate water supply
- ➔ Because bushfire is seasonal, people don't think about it in the winter and concentrate on other salient concerns
  - ↳ keen gardeners are 'prepared' all year round

**the cost, time, knowledge to prepare**

having the right resources to prepare

negative outcome expectancy

decreases

preparedness

## ➔ What influences preparedness for bushfires?

"... good, practical how-to information about preparing I suppose. Maybe instances where you hear those stories of houses that were successfully defended, like what happened, what preparation had been done..." S

- ➔ Lacking the right information, a mower, ladders or rakes might prevent someone from preparing
- ➔ But, having access to the right information is a resource people most often specify as important
- ➔ People rely on a variety of sources
  - ↳ some are trusted (local radio)
  - ↳ others not (print and news media)
- ➔ People must be able to act on the information - knowing that information is available doesn't mean it's used in the way it's intended

**having the right resources to prepare**

the cost, time, knowledge to prepare

negative outcome expectancy

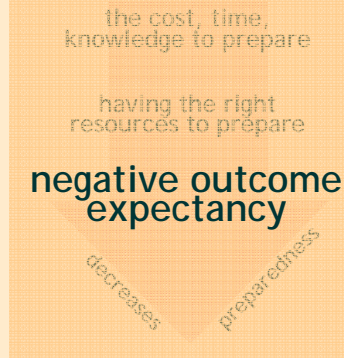
decreases

preparedness

## ➔ What influences preparedness for bushfires?

"...we've got two 30-metre trees, and to be honest, if they caught fire, you know, and they started throwing stuff everywhere, I don't think I'd want to stay and try and defend it".

- ➔ If people believe that preparing will not benefit them, they're unlikely to follow risk communication advice
- ➔ What makes people feel nothing can be done?
  - ↳ they've had a bad experience that has given them a fatalistic attitude (locus of control)
  - ↳ their friends, family or community are not supportive
  - ↳ fear or anxiety
- ➔ Risk communication must use techniques to show that preparing is beneficial



## ➔ Applying these results in the real world...

### Predictors that increase the likelihood of preparing

<b>intention to prepare</b>	<ul style="list-style-type: none"> <li>➔ Ensuring householders are well aware of bushfire risk if they live in at-risk locations</li> <li>➔ Effort must be focussed on the stay/go message - 'early' for householders is not necessarily 'early' from a fire authority's perspective</li> <li>➔ While intention to prepare is a primary predictor of preparedness, both positive outcome expectancy and sense of community build a householder's intention to prepare</li> </ul>
<b>positive outcome expectancy</b>	<ul style="list-style-type: none"> <li>➔ Utilising a risk communication message that incorporates information showing people preparing and defending their property successfully</li> </ul>
<b>sense of community</b>	<ul style="list-style-type: none"> <li>➔ Targeting risk information that encourages community based activities</li> <li>➔ Encouraging information transfer from old to new residents</li> </ul>



## → Applying these results in the real world...

### Predictors that reduce the likelihood of preparing

the cost, time, knowledge to prepare

- Providing information to householders detailing multiple uses for preparedness behaviours - for eg rainwater tanks or incorporating preparedness steps into normal gardening routines

having the right resources to prepare

- Checklists are an excellent source of information that can be accessed easily - but does everyone use them?
- Consistent reminders of the need to be prepared - eg, smoke alarm campaign

negative outcome expectancy

- Risk communication should focus on the fact that a well prepared house is defensible - fear often does not lead to effective preparation
- Often, images of threatening fire in preparedness brochures may induce anxiety that deters people from preparing

## → Where to from here?

- This list of factors is useful, but does not fully describe how individuals decide to prepare
  - ↳ what is the role of trust (community/agency)?
  - ↳ how does bushfire experience contribute?
  - ↳ how does salience of bushfire threat determine people's actions?
- We know there are many important relationships/interactions between these and other factors - identifying how they co-exist will be the primary goal of this research
- Understanding those relationships/interactions:
  - ↳ Completion of qualitative analysis on 06/07 interviews will identify relationships
  - ↳ structural equation modelling will allow me to test the interrelationships between these factors, and their influence on the decision-making process
  - ↳ widening the research to encompass peri-urban (I-zone) areas around Sydney