IMPROVING THE ROLE OF HAZARD COMMUNICATIONS IN INCREASING RESIDENTS' PREPAREDNESS AND RESPONSE PLANNING

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The increasing frequency and complexity of natural hazards poses a challenge for community resilience. Communication and education of risk mitigation strategies play an essential role in building and maintaining resilience through preparation and planning by residents. However, little is known about the relative effectiveness of existing hazard communications and education strategies (i.e. the extent to which they influence the amount and quality of residents' preparedness and planning behaviours for natural hazards). Also, to improve the current effectiveness of these strategies, we need to determine what some of the key barriers and enablers to preparedness and planning are.

PROBLEM STATEMENTS

This project combines expertise in social, health, and consumer psychology, and disaster and emergency management. It is designed to develop evidence-based strategies that motivate appropriate action during the preparedness and planning phase of disasters. More specifically, it will address the following problem statements (PSs):

1) What measures can best be used to capture individuals' preparedness and planning for hazards?,

2) How effective are existing strategies such as community engagement groups vs. brochures in increasing preparedness and planning by residents of hazard prone areas?, and

3) What are the (psychological) barriers and enablers of preparedness and planning by residents?

METHOD

PS1 has been addressed over the past 6 months. This has resulted in the selection of several measures of individual/household level preparedness and planning for bushfires and floods (see middle column).

PS2 and 3 will be examined through quantitative survey-based studies across Australia.

For PS2, the project will compare different existing communication and education strategies (e.g. community based groups, websites, brochures, etc.) and determine how strongly they are linked to different types of preparedness and planning by residents.

For PS3, the project will examine why some people are less able to prepare/plan (barriers) and why some people are less motivated to prepare/plan (motivators) than others.

PHASE 1

Phase 1 of the project had two main purposes. First, we had to determine which natural hazards to focus on. Second, we had to determine what measures of preparedness and planning to use. Both were completed through collaboration with our project end-users.

▶ Hazard wise we will be focusing on bushfires and floods.

PREPAREDNESS MEASURES

We will be using the following main dependent/outcome variables:

▶ *Bushfire preparedness (Dunlop et al. in press in IJWF):* this measure uses 38 items to determine how prepared residents are for a) defending their property, b) evacuating safely, and c) how much they have done to improve the fire resistance of their home.

▶ *Planning :* An 8 item checklist to determine how much response planning people have done (e.g. You have thought carefully about what each person in your household would need to do).

▶ *Psychological preparedness:* We will measure Wellbeing (i.e. physical, emotional, and cognitive ability to prepare for response and prepare for recovery); Connection (i.e. whether people can count on support from others both in the response and recovery phases); Knowledge (how aware people are of some key facts about the type of hazard).

▶ *Security*: A checklist to see whether people have attained necessary items for an emergency kit, have insurance, are able to maintain basic needs such as water/food, etc.

For floods we created adjusted versions of the Planning, Psychological, and Security measures.

END-USER STATEMENT

"Australian emergency services are seeking enhanced evidence to support the assessment and comparison between different types of strategies that aim to increase residents' preparedness and planning for natural hazards. This is a key driver for an exploration of the relative effectiveness and efficiency of strategies ranging from awareness-raising and information-based approaches (e.g. websites and advertising campaigns) to approaches that facilitate two-way dialogue and participation (e.g. workshops and community-led planning sessions). This type of analysis would enable emergency services to make better judgments about the relative effectiveness of these strategies and their application in different situations, with different individuals and communities.

This research project aims to address this problem by quantitatively unpacking the relationships between different types of agency awareness, education and engagement strategies and their effects on residents' preparedness and planning for hazards, and examining the psychological boundaries and areas of improvement for these strategies. This will enable emergency services agencies to make better evidence-based choices regarding the use of different strategies, and will serve as a basis to further improve these approaches, with the ultimate aim of increasing the levels of preparedness and planning for natural hazards within the Australian community."

- Andrew Richards, Manager Community Engagement, NSW State Emergency Service

Reference

Dunlop, P.D., McNeill, I.M., Stacey, J.L., Skinner, T.C., & Morrison, D.L. (in press). Preparing… for what? Developing multi-dimensional measures of community wildfire preparedness for researchers, practitioners, and households. *International Journal of Wildland Fire* (Accepted April 22, 2014)