

# Older people and disaster preparedness: a literature review

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## ABSTRACT

Anecdotally, older people are considered to be vulnerable to emergency events, from the preparation phase, through the response, and into the recovery phase. This article provides an overview of disaster research literature concerning older people, in the context of vulnerability. In light of the current focus on building resilience and the Council of Australian Governments (COAG) endorsed National Strategy for Disaster Resilience, it is timely to consider how the emergency management sector understands and engages with potentially vulnerable groups to build their resilience. <sup>R</sup>

therefore forms part of a larger research project considering whether the lived experience of older people influences their preparedness for disasters.

## Method

There is a large, and growing, body of literature available about disasters and disaster management, predominantly from overseas, but also from Australia. To meet the particular requirements of the author's research, and to ensure that both domestic and international vocabularies and research were captured, search terms included: emergency, disaster, preparedness, older people, elderly and aged. The literature review was not confined to specifically the emergency management field, and also explored the disciplines of psychology, sociology, health care, climate change and demography.

## Introduction

In Australia, and around the world, both natural and man-made disasters continue to challenge the emergency management sector, from preparedness through to recovery. The experience of recent events, such as the Victorian Bushfires in 2009 and the Queensland and Victorian Floods in 2011 and 2012, have highlighted issues regarding the engagement of vulnerable groups in preparedness and response planning. One group that is often considered to be vulnerable is older people. Further, those older people in receipt of an in-home aged care service might be considered particularly vulnerable. This could be either because they receive the service due to their own reduced ability; or because they rely on a service which might itself be interrupted during an emergency event.

In addition to actual emergency events, discussions that have taken place during disaster management planning and exercising, for example pandemic planning, have triggered consideration to the way older people are engaged in disaster management processes. Have the views of older people been specifically canvassed, in developing disaster preparedness plans? While peak bodies may be engaged in disaster planning, the only time older people themselves have been invited to contribute to disaster management has been through post emergency event research. This literature review

## Older people and disaster research

Anecdotally, older people are considered to be vulnerable to emergency events, from the preparation phase, through the response, and into the recovery phase. They are often grouped in a collective of vulnerability that 'identifies the aged, the very young, the poor, the socially and physically isolated, the disabled and ethnic groups as being particularly vulnerable' (Buckle, 1998-99, p. 23).

However, little research has been undertaken in this area. As Ngo (2001, p. 80) highlighted: 'Despite an increased awareness of disasters and a growing interest in the study of how disasters affect human populations, research specifically addressing the elderly population has remained a relatively small and undeveloped field'.

In addition, much of the research that has been undertaken provides conflicting information. Fernandez *et al* (2002, p. 68) found that 'The data are contradictory as to whether the elderly groups are more vulnerable than are other age-defined population groups' suggesting there are several variables in older population groups which must be considered, for example age (what constitutes 'older'); mental and physical ability; living arrangements; and financial situation.

Most disaster management research concerning older people focuses on the response and recovery phases. As Perry and Lindell (1997, p. 258) noted 'Over the years, the bulk of empirical research on older citizens in disasters has focused on the period after the impact; normally known as the reconstruction and recovery phase'. Little research has been carried out with regard to older people and preparedness.

Of the preparedness research carried out to date, most is centred on authorities preparing for responding to an event rather than the individual. For example, there has been much research on developing social vulnerability indices within communities, to assist emergency response workers when dealing with an event. If a social vulnerability study undertaken in a community highlights that a large number of older people live in a particular suburb, the emergency responders can factor that in their actions (Morrow, 1999; Yeletaysi *et al*, 2009; Center on Aging, 2005; and Flanagan *et al*, 2011).

Similarly, there is literature that considers aged care facilities, such as nursing homes. In particular, there is research and guidance on preparing the facility for emergency events, whether and when to evacuate, and the best way to evacuate the facility (Hyer *et al*, 2006; Hyer *et al*, 2007; and Castle, 2008). Given its focus, this type of research has considered agencies and authorities with responsibility to manage such facilities or activities, not community residents.

However, there is a lack of research that relates to preparedness of older people who are living in their own homes, or even to agencies that provide care to older people in their homes - 'Little research has addressed disaster preparedness in agencies providing services to older and/or disabled clients in their homes. Almost all of this research has been limited to narrative reports about the impact of disaster on clients of home care services, narrative accounts of community based initiatives, responses of a single agency after a disaster, or ways home healthcare nursing can better prepare to care for clients.' (Laditka *et al*, 2008, p. 134).

The discussion that has taken place largely considers the development of tools that will help older people prepare, rather than what might influence their decision to prepare. Following their study to identify the vulnerabilities of older people to disasters and to develop strategies to deal with those vulnerabilities, Fernandez *et al* (2002, p. 71) stated that 'Disaster checklists and other educational materials can be developed for distribution to the frail elderly, their family, and friends through social networks, community-based service organizations, and healthcare providers'. However, this study was based on a literature review alone; it did not interview one older person.

Similarly, Aldrich (2007, p. 3) noted 'Disaster preparedness planners are beginning to understand the need to communicate with advocates from the older adult and disability communities.' But what about speaking with the older people themselves?

It would appear that the opinions and thoughts of older people - either in developing the tools, or even assessing if the tools are what the older people want - have rarely been canvassed. It has been more the case of doing things to and for older people (i.e. disseminating personal safety plans) rather than asking older people what they want (i.e. engaging with the older people).

There is precedent for fully engaging with older people in other sectors. A World Health Organization project considering age friendly cities, undertaken in late 2006-early 2007, interviewed older people (aged 60 years and over) in focus groups across 33 cities worldwide - 'Because older people are the ultimate experts on their own lives, WHO and its partners in each city have involved older people as full participants in the project' (WHO, 2007, p. 7).

This 'bottom up' approach of directly canvassing the views of older people could readily be transferred to emergency preparedness. Authorities would do well to ask older people what they have learned from their experiences through life, what served them well in previous emergency events, and what would be useful in terms of preparedness advice and tools, rather than assume. This could have a positive effect on the whole community, not just the older people.

## Are older people more vulnerable?

Disaster researchers often classify older people as a 'vulnerable' group. However, as has been highlighted by many (for example, Fernandez *et al*, 2002 and Smith *et al*, 2009) it is not advancing age alone that makes older people vulnerable. The vulnerabilities of older people are generally due to factors associated with the advancing age, such as 'impaired physical mobility, diminished sensory awareness, pre-existing health conditions, and social and economic constraints' (Fernandez *et al*, p. 69).

Buckle (1998-99, p. 15) when writing about community vulnerability with specific regard to the 1998 Longford Gas Crisis in Victoria, stated 'There is anecdotal evidence - though not corroborated by any systematic study - that the elderly who had weathered the landmark disruptions of war and economic depression or the more personal difficulties of daily domestic life dealt with the stress of living without gas better than the less robust young. As well as being personally more resilient they were more imaginative in the solutions they developed to cope without gas'.

## Whose responsibility is it to 'protect' older people?

Another issue of interest is the question of responsibility. Whose responsibility is it to 'protect' older people in their own homes, or ensure their preparedness for emergency events? Is it the older person's? Is it the responsibility of the state authorities? Is it a mixture of both? Does this differ from responsibility to other citizens? 'Debate

concerning the obligations of the state, or government institutions, to promote and maintain welfare has an ancient history. The balance between private and public responsibility for welfare has shifted over time and across nations, reflecting widely philosophical views concerning the state's proper role.' (Reamer, 1993, p. 10).

Given that older people spend more time in their homes than anywhere else, and that research has shown that the home is the most important place for older people, where they feel both independent and safe (Fange and Ivanoff, 2008) ensuring they are not vulnerable in this setting would seem to be critical:

"The very old people were very aware that due to aging they belonged to a group that is vulnerable...The home was a safe and familiar environment, and a place that the older people could return to when life outside home was too demanding. A familiar, safe and functional home compensated for declining capacity, supported routines developed over the years, and enhanced daily activities and participation. Thus, the home was an important source of support for the health of the very old people" (Fange and Ivanoff, 2008, p. 341).

### The ageing population: a burden or a benefit?

In one respect, the literature on the ageing population is generally in agreement - that the international population, with very few exceptions, is ageing. Certainly in Australia this is the case. The Australian Bureau of Statistics (ABS) data shows that the median

age of Australia's population is projected to rise to between 41.9 years and 45.2 years in 2056, from a 2007 figure of 36.8 years. In addition, by 2056 there will be a greater proportion of people aged 65 years and over than at 30 June 2007, and a lower proportion of people aged under 15 years. (3222.0 - *Population Projections, Australia, 2006 to 2101*, 2008).

What is interesting in the literature is the difference of opinion of the 'burden or benefit' of this ageing population. 'Population ageing has brought with it... negative stereotypes of dependency and burden...' (Tinker, 2002, p. 731).

The literature from some sectors, for example the health and economic sectors focuses on the ageing population as a burden. Those sectors express concern that, as the older population increases, there will be a greater strain on healthcare provision (for example, Stewart, 2002; and O'Connell, 2000) and superannuation.

In its report of 2001, the Commonwealth Government Department of Health and Ageing considers the implications of an ageing population. While not discussing the subject in a negative light, the report does point out that 'There are a number of population ageing challenges for Australia. Promoting a sound economy is the best insurance a nation can take to counter and adjust to the impact of population ageing.' (p. ix).

On the other hand, there are those who speak very positively about the ageing population, and what older people can give to society. In their report on older



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persons in emergencies, for example, the World Health Organization (WHO) (2008, p. 4) states:

“Older people are resources for their families and communities particularly during times of crisis. Their years of experience can make them models of personal resilience and sources of inspiration and practical knowledge. They give voluntary aid, care for grandchildren or neighbours, and participate in support or recovery initiatives. Including older persons in planning for and responding in emergencies thus benefits the whole community.”

This report compiled case studies of older people, around the world, who had experienced an emergency event – either as a person affected by the event, or as someone involved in the emergency operations. The events ranged from natural disasters such as the tsunami that followed the Indian Ocean earthquake of December 2004, and the heatwave that affected large parts of Europe (particularly France) in 2003; to man-made events such as the Chernobyl nuclear power plant accident of 1986 and the Lebanon armed conflict in 2006.

Refreshingly, in most case studies undertaken for the study, it was the older people themselves who were interviewed – not peak bodies or other advocates for older people. Similarly, some of the measures proposed in the report’s policy response are very inclusive and engaging of older people. For example, the promotion of the sharing of older people’s experiences of previous crises and involvement of older people in personal planning and decision-making relating to emergency events (p. 38). After all, ‘...the survival know-how in emergencies that older people have acquired helps them cope and provides inspiration and guidance to others’ (p. 32).

## Prior exposure to disaster events

There is a large body of literature considering prior exposure to, or previous experience of, events and subsequent behaviours as a result of that exposure or experience. This research covers both disaster exposure (particularly in relation to psychological effects) and other more general life experiences.

Prior exposure, developed over a long life, could be seen to be a positive in terms of disaster preparedness. For example, Morrow (1999, p. 6) found ‘In a study on the effect of prior experience on the psychological impact of a disaster on older adults, the findings support an inoculation hypotheses in which previous exposure to stressors that were the same or similar in nature to the disaster resulted in a level of psychological tolerance’.

Similarly, in his review of literature on how elderly people respond to disasters, Ngo (2001, p. 80) found that ‘The lower psychological vulnerability of older adults observed among the elderly disaster victims

may be attributed to greater life experience, previous disaster exposure, or having fewer obligations and responsibilities.’

In terms of the disaster sector, the research – while interesting and informative – is not age specific, i.e. much of the research considers prior exposure to an event across a community of all ages. Also, the focus is primarily on prior exposure and subsequent behaviours in known hazard areas, for example hurricanes (Sattler, Kaiser and Hittner, 2000).

While it may seem intuitive to assume that prior exposure to an event makes survivors more vigilant and encourages preparedness for future events, this is not always the case. For example, experiencing a small event ‘such as having easily survived a mild hurricane or near-miss, can breed complacency’ (Morrow, 1999, p. 6), and subsequently lower inclination to go to the effort of preparing.

No research has been found that asked a broad section of people (of any age) that lived in a general community where potentially any event could occur, but was not known for specific hazard event types.

## The lessons so far

In light of the current focus on building resilience and the National Strategy for Disaster Resilience it is timely to consider how we understand and engage potentially vulnerable groups to build their resilience. More needs to be understood about what constitutes vulnerability, and engagement with those identified as vulnerable must be genuine. Emergency management planning needs to be less paternalistic and more inclusive if true resilience is to be achieved. In the case of older people, it must be recognised that many older people live in the community, in their own homes and can contribute enormously to community resilience.

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