

UNISDR Scientific and Technical Advisory Group Case Studies - 2015 Disability Inclusive Disaster Preparedness and Response: The importance of social connectedness

The problem

On September 4, 2010 a 7.1 magnitude earthquake struck the Canterbury region of New Zealand beginning a 16 month earthquake sequence that devastated the city of Christchurch. On February 22, 2011 a shallow 6.3 earthquake centred under the city resulted in 185 deaths and approximately 9,000 injuries, damage to 100,000 homes, loss of power to 54,000 houses, loss of water supply to 80% of the population, limited food supplies and disruption to transport and roading. [1] Internationally, there is limited research on the experiences of people with disabilities during and following a major disaster. [2] This case study reports on findings from original research [3] relating to social connectedness and perceptions of vulnerability among disabled people who were living in Christchurch over the extended period in which the earthquakes occurred.

The science

People who are sick or physically disabled and/or who live in poverty are more likely to be impacted in a natural disaster [4] and less likely to have access to the social and economic resources necessary for resilience and recovery. [5] An epidemiological study by Chou et al. [4] for example, identified that people with moderate disabilities, those with mental disorders, or who had been hospitalised in the week prior to the 1999 Taiwan earthquake, were most at risk of injury with the degree of vulnerability increasing with decreasing monthly wage. Disabled people are also more likely to have high health care needs, to live alone, to be unable to respond quickly during an emergency [4] and to be reluctant to evacuate due to concerns that emergency shelters will not be able to meet their needs. [2]

In our research [3] good neighborhood support was associated with resilience, while poor neighborhood support was associated with vulnerability. Disabled people preferred to shelter at home with a robust support network, [3, 6] combined with effective emergency preparedness planning, [7] enabling them to have the confidence to remain in place. However, as the earthquakes continued even disabled people with good social networks talked about feeling unable to ask stressed and traumatised friends or family members to provide help yet again.

Following the February earthquakes disabled people reported lower levels of social connectedness than the general Christchurch population. [8] Social isolation and lack of contact with neighbours was associated with



Figure 1: Earthquake damage to a suburban road in Christchurch, 22/02/2011. Severe damage to city infrastructure meant that disabled people needed good support networks to 'get through'.

increased vulnerability. [3] Being forced to move post-disaster to a new community could mean that disabled people suddenly lost key forms of social support. Some disabled people who were able to shelter at home found that key support people in their neighbourhood left due to damage to their homes or to a desire to escape the on-going earthquakes. Lack of community support, social isolation, or unfamiliarity with neighbours made disabled people feel afraid and vulnerable should another earthquake occur. [3, 6].

The application to policy and practice

Since the Christchurch earthquakes, progress has been made in documenting [9] and in incorporating lessons learnt into New Zealand's national emergency management frameworks. [10] The Ministry of Civil Defence Emergency Management, for example, has developed a wider range of disability accessible preparedness information. [11] Information resources for people with disabilities now emphasise the importance of incorporating social networks and community connectedness into disaster preparedness planning. [11] However, disabled individuals are largely responsible for developing their own community of support. Establishing good support networks can be a challenge as disabled people are more likely to be socially isolated and to experience discrimination. [12] Social isolation also has important implications for disabled peoples' ability to evacuate, access welfare response services and/or emergency information particularly if they needed help from able-bodied people to do so. Amplified social isolation among disabled people in the aftermath of the Christchurch earthquakes [6, 8] suggests that proactive policies and practices need to be developed that focus upon fostering and using social networks to support disabled people in the aftermath of a natural hazard event.

Did it make a difference?

Preparedness is an effective indicator of resilience. [8] Our research findings [3, 6] identified that prior to the September earthquake disabled people were not prepared for an emergency. Following the initial 7.1 earthquake most disabled people (92%) took steps to ensure that they were better prepared. [7] Taking action to prepare for an emergency indicates that the majority of participants expected that they would be able to look after themselves in the wake of a natural hazard event. However, few disabled people were able to prepare for an emergency without support. [6] Research into the experiences of disabled people during the Christchurch earthquakes [3, 9] has increased awareness of the needs of disabled people in an emergency among local authorities and responding agencies. In order for the disabled community to be well prepared and ready to act, further work is needed in developing participatory and collaborative approaches that engage stakeholders within the disability sector in strategies for disaster risk reduction, as well as in emergency management and planning. This requires ongoing effort to incorporate inclusive disaster mitigation, preparedness and response initiatives across natural, built, social and economic environments that take into account the needs of disabled people. [7]

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