Reading

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The Needs of Elderly Persons in Natural Disasters: Observations and Recommendations

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Disabled and elderly persons are in many ways especially vulnerable to the safety and health hazards of natural disasters and have specific needs in emergency situations. Their increased risks should be compensated for by specific planning and preparation. In this article I discuss some of the ways in which disasters specifically affect this section of the population and propose some guidelines for the development of disaster plans which will take account of their special needs.

Various studies have suggested that children aged 5 to 9, women and the over-60s have higher casualty rates in disasters (Glass et al., 1977; Sommer, 1972) and that the proportion of injured among the 65–74 age group is likely to be higher than would be expected from the population distribution (Guerri et al., 1983; Guerri and Alzate, 1984; Ortiz, 1985). Additional population sub-groups that are more vulnerable or have greater exposure to hazards, have lower injury threshold and/or decreased ability to survive injury once it has occurred, are the very young and very old and the ill and debilitated (Withers and Baker, 1984; Hutton, 1976; Price, 1978). Disabled persons, 60 per cent of whom are 65 years old or older (Royal College of Physicians, 1986), also have increased vulnerability to hazards and greater safety needs in disaster situations (Price, 1978; Glass, 1980).

VULNERABILITY OF ELDERLY PERSONS IN DISASTERS

Elderly persons may have locomotor, sensory or cognitive impairments restricting their activities. Some impairments — such as those of sight or hearing — may limit them in perceiving warnings and emergency instructions; others will reduce their ability to carry out recommended self-protective actions (getting under tables during an earthquake or tornado-shaking) or their speed and agility in leaving a room or building (in a fire). When a disaster occurs, even without collapse or major damage, buildings and their surroundings may become unsafe and previously innocuous elements of the interior environment can become dangerous and result in injuries from broken glass, falling electrical fixtures, moving equipment and furniture. Elderly persons, with functional limitations, will face greater risks in this changed environment than able bodied and younger individuals.

Most buildings and many spaces are difficult for the disabled elderly to negotiate, even in normal times. Wheelchair-users may always have to go into and out of a

building using the one entrance with a ramp attached to it; a disaster could obstruct this entry/exit, leaving the wheelchair-bound without an exit. Many elderly persons may have only the lift as their way for going from one floor to another; an earthquake or fire makes the lift immediately unoperational (Arnold, 1982; Schroeder and Benedict, 1984). Elderly persons with impairment of sight have a particular route they use and when this becomes unusable the individual will become disoriented. Thus, since elderly persons have fewer available options for emergency exit, they may be placed at higher risks.

In many countries, elderly persons may be economically underprivileged, living in structures more vulnerable to certain types of disaster (fires, tornadoes, earthquakes) and unable to increase their preparedness — store food, purchase emergency first-aid equipment, upgrade their dwelling — in view of an impending disaster (Tierney et al., 1988).

Elderly persons may face increased difficulties in the aftermath of a disaster. An altered environment may expose them to cold or heat, humidity or winds, and may restrict their accessibility to required medications, special aids and equipment, or assistance from others. Everyday life in the post-disaster environment may cause stress and require a greater expenditure of energy, which may disturb a precarious balance and result in loss of objects that make life easier, such as spectacles, hearing aid batteries and canes. Hence, disaster-induced restrictions may place elderly persons in a more hazardous and vulnerable situation.

It has been reported that 50, or 38 per cent of the 133 injured persons in the 1983 Coalinga, California earthquake had some type of disability; this was a higher percentage than the overall rate of disability in the stricken community (Aroni and Durkin, 1985). A recent study found that the initial reaction at the onset of disaster — the reaction that may be affected by the disability — was critical to the individual's exposure to hazard, and that the decisions and actions that followed appeared to be significantly influenced by the initial reaction; the study also confirmed that physically disabled persons have reduced accessibility to their personal items and emergency medical supplies following the disaster impact (Rahimi, 1991).

The recent Iraqi missile attacks on the civilian population in Israel also revealed the vulnerability and special needs that elderly persons also experience in situations arising out of natural disasters (Eldar, 1991).

SUGGESTIONS FOR APPROPRIATE ACTIONS

Increased vulnerability should not mean that elderly persons should inevitably experience a higher casualty rate in disasters. They have the right to expect an equivalent level of safety protection in disasters to that experienced by able bodied and younger individuals. The higher risk should be compensated for by specific planning and preparation to assure that they have the same chance of survival.

Specific instructions and guidelines need to be developed about how disabled and elderly persons can best be assisted when a disaster occurs; preliminary work has already been carried out (Parr, 1987; Tierney et al., 1987).

Planners in disaster-prone areas should know as much as possible about the prevalence of different forms of disabililty among elderly persons in their area, the degree and type of functional limitations associated with them, their socioeconomic characteristics and residential pattern and their specific risk factors (Logue et al., 1981). In order to obtain the necessary information, surveys and/or occupant behaviour studies would have to be carried out (Tierney et al., 1988); it would be useful to have all current elderly in the area on a centralized location system (Parr, 1987;

Logue et al., 1981; Huerta and Horton, 1978), to ensure that they receive assistance quickly and effectively in a disaster.

High priority should be given to educating and training disaster personnel to give appropriate assistance to elderly persons. Educational and training experiences should also be provided for the elderly to help them learn self-protective behaviour and evacuation patterns. It is of the greatest importance, however, that, in all disaster planning and preparation activities, elderly persons should be centrally involved, consulted and accepted as advisors, as well as incorporated as active participants in disaster simulations and practical exercises.

Disaster plans should contain provisions for:

- notification of hearing- or vision-impaired persons that an emergency is expected or exists;
- special needs of the elderly, in case the authorities plan the evacuation of an area under imminent threat of disaster;
- material assistance for high-need/high-risk members of the elderly population;
- emergency transportation for elderly persons; and
- establishment of evacuation centres accessible to disabled elderly persons.

In addition, all nursing homes, old-aged or pensioners' homes and other geriatric institutions (Roberts et al., 1982) should prepare written emergency plans for internal (fire) and general disaster situations, to be reviewed periodically and rehearsed.

The elderly form a large and growing population in all countries. They are also increasingly integrated into the life of society, as they choose to live independently, in their own households. Thus, the issue of safety and vulnerability — once considered the domain of the family or the specialized institution caring for elderly individuals — has become the responsibility of the elderly themselves and of the community in which they live, especially those institutions which are charged with preparedness planning for natural disasters (WHO, 1989).

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