CHAPTER IV

THE CARE OF THE DISABLED - CAN ORDINARY PEOPLE HELP?

Of the estimated 500 million disabled persons in the world today, most live in developing countries. Moreover, most natural disasters also occur in developing countries. In rural areas, and also in urban slums, the disabled (whatever their disability may be) find themselves totally dependent on others because of lack of rehabilitation and technical aids. The gap between needs and available services has been judged by the World Health Organization to be 98.9%, that is, of all persons needing particular services at a particular time, only 1.1% in fact received them.

It is not sufficiently widely realised how greatly the disabled members of a community are dependent upon others because of their physical and/or mental impairments or disabilities, nor that they are unable to respond to emergency warning as others do. Their difficulties may be increased because some of the disabled may also be illiterate; and some may suffer from more than one kind of disability, e.g. the deaf and blind. In order that they may receive the help they need, they should be identified in the community and community workers and volunteers provided with specific instructions and guidelines about how they can best assist

disabled persons when a disaster occurs. At present, many people do not realise the special kinds of help needed for different kinds of disablement; and there is an almost total lack of information as to how to provide assistance.

WHO proposes two principal strategies: "(1) Prevention of disability, through all types of measures, within and without the health sector, that contribute to a reduction in the incidence of impairment. If impairment is already present, measures should be taken to reduce the severity or postpone occurrence of disability and handicap. (2) Provisions of rehabilitation using the primary health care approach. Community-based rehabilitation services (with an appropriate system of supervision and referral) should be provided, with the aim of total coverage of all populations. These services deliver at least the most essential care, and form an integral part of the national socio-economic development programme." 21/

The guiding principles to be followed in working out a disaster preparedness plan and undertaking relief activities for disabled persons are the three concepts on which the WHO strategies are based, i.e. prevention of disability, measures to reduce the severity of disability, and community-based rehabilitation.

21/ "Disability Prevention and Rehabilitation" Report of the WHO Expert Committee on Disability Prevention and Rehabilitation. Technical Report Series 668, Geneva 1981.

The prevention of disability in disasters, i.e. preventing injuries from becoming temporary or permanent disabilities, chiefly concerns the medical and para-medical personnel who are called upon to administer first-aid at disaster sites. 22/ This subject is dealt with in Chapter II. Here, the focus is on those who are already disabled when a disaster strikes.

The disabled may be an integral part of a community, but they nevertheless have a special status in an emergency because they are dependent on the help of others, and/or on technical aids. This dependence may be total or only partial, but it renders the disabled, as a minority group, extremely vulnerable. The major aim of the guidelines developed here is to reduce the incidence of injury (which could of course lead to even further impairment and disability) by developing measures to protect the disabled in a disaster and by training and instructing personnel to give the requisite assistance.

In some countries, a WHO Manual "Training the Disabled in the Community" is now (1981-1982) being tested or applied. Those who in this programme are trained to train others have a responsibility to incorporate in their work emergency disaster instructions to the disabled. The ILO is also involved in developing community-based vocational rehabilitation services in isolated rural areas, e.g. in Indonesia.

22/ In Guatemala, 31% of 100 victims questioned said that medical personnel were not careful enough in this respect.

PROTECTION OF THE DISABLED

There are two factors which determine the nature of the protection and assistance required when a disaster occurs: one is the type of disaster, and the second is the kind of disability that is present.

(a) The Disaster

For the purpose considered here, disasters can be divided into two categories: those in which no warning period occurs, and those in which a warning period permits the implementing of precautionary measures such as evacuation, or a local move to safe shelter. Exceptionally heavy rainfall in the catchment area of a major river, for example, could well lead to extensive flooding in the lower reaches, but the time of greatest danger in the areas likely to be affected could be predicted some hours in advance. It is true that with increasing frequency the course and speed of major storms can be forecast with some accuracy, that activity presaging a probable volcanic eruption can be detected, and that sometimes earthquakes can be predicted. But all these events - and many other kind of disaster or emergency - can occur without prior warning. Furthermore, warnings (even if given by the competent scientific authority) may be accidentally or even deliberately not passed on to the general public. It would therefore be dangerous to regard evacuation as the sole, or even the main, panacea to be applied in the protection of the disabled - or indeed of the community in general. It is however important.

The tidal wave and cyclone disaster in Andhra Pradesh in 1977 cost some 25,000 lives and it has been noted that among those who died, most were the young. the old and the weak. It can perhaps be assumed that those designated as the "weak" were in fact the physically and/or mentally disabled because this group is least able to save itself if no special assistance is provided.

b) The Disability

The disabled do not form a homogenous group. "Disability" is often today equated with restrictions on physical mobility. But the deaf and those with impaired hearing, the blind and those with impaired vision, the mentally retarded and mentally ill, and people with various medical impairments also have problems, and problems that demand solutions different from those appropriate for persons who are simply less than fully mobile. Guidelines must therefore take into account the different needs of each of these groups and also provide for the multi-disabled who may require individual assistance.

EMERGENCY PLANNING FOR THE DISABLED 23/

Ensuring that community emergency organizations are alive to the needs of disabled persons is an important job of today's emergency managers. How can emergency planners respond to the special needs of the disabled?

23/ This section is adapted from an article in "Emergency Management Newsletter" (edition of 6 November 1981) published by the Federal Emergency Management Agency, Washington, D.C., U.S.A.

The following list of questions should be considered when developing or upgrading emergency management plans in the community:

1. Are services for the disabled included in the community's emergency plans?

   There are visual, hearing, mental and mobility disabilities. All these groups have special needs. Has information been sought about these needs and how to meet them?

2. Were the views of the disabled taken into account in making the plans?

   If there are existing organizations for the disabled in the community, always contact these organizations for advice when developing emergency plans. They also can provide expertise in creating self-help and awareness programmes.

3. Does the emergency organization have a way of identifying the disabled during an emergency ?

   Is it known who the disabled in the community are? Where they live and work? And what special provisions have been made for them? Have emergency contingency plans at a disabled person's place of employment been established?

4. How are the emergency needs of the disabled recognized in the community?

Laws and building codes may require planning for disabled persons, but community support may be a more influential method to address these special needs. Make known what actions for the handicapped have been taken in the community and elsewhere.

5. Have local shelter areas been checked to see if they will be able to handle disabled persons?

   All refuge areas must be equipped with, or have readily available any specialized equipment that may be needed by the disabled. Temporary shelter following evacuation must adequately meet a variety of needs for them.

6. How can it be demonstrated that meeting the emergency needs of the disabled will improve life-safety for the entire community?

   Disabled persons can be self-sufficient and serve as valuable resources in emergencies, and their greater awareness and wider participation in emergency planning will benefit everyone.

7. Are the disabled included in community preparedness exercises, and how can they assist in an emergency?

   Do they, and the community, know what to expect in an emergency? Also, what activities most need volunteers? Which would be suitable for disabled volunteers? Try communications, incident reporting, and research, among others.

The task of an emergency manager is to ensure that the critical emergency needs of the members of the community - the able-bodied as well as those with special needs - are met. Working with the disabled, involving them in this vital community process, will result in a higher degree of preparedness for them and the entire community.

THE DISABLED IN THE URBAN ENVIRONMENT

Increasing urbanization in developing countries over the past 10-15 years has meant - among many other things - an increase in the number of disabled persons in urban slums and small shanty-towns around big cities. Large numbers of migrants, mostly farmers and peasants, have left rural areas and have come to the cities in the hope of finding work. In peripheral slum belts around cities, migrants live in conditions of considerable poverty, and in areas often highly susceptible to disasters. Traditions of rural life may continue to exist side by side with an urban life distinctly different and apart. Because many migrants work in the 'informal sector' they are not registered anywhere, nor are they included in the national census. For this reason they remain outside any existing governmental social and economic welfare programmes, and this has particularly adverse effects for the disabled and their families.

It is important to locate disabled persons living in urban slums and to ensure that they are included in this programme of instruction. But it is a difficult task to find them, because urban slums are not communities with well-established human networks. The migrants who live there share poverty and proximity, but do not experience the social cohesiveness nor enjoy the benefit of definite help-patterns they had in their rural village.

Community workers must be trained for case-finding (calling on any locally acknowledged leader or respected long-time residents for assistance) and providing primary assistance in emergencies. They should record a simple description of the disability, note the name and address and forward this information to the local and/or regional health centre. In this way, the information can be collected by the Public Health Department or other appropriate government offices, and be eventually utilized for a national rehabilitation programme. (Such a procedure is quite distinct from a disability survey, which demands highly qualified personnel to make accurate assessment of impairments and disabilities in terms of functional limitations and the accompanying change in social role of the individual). These case-finding and recording functions should whenever possible be integrated with those of related services such as primary health care, schools and community development programmes. Home visits constitute a valuable approach to help establish human contacts and communication and to assist in constructing the necessary technical aids as well as showing their proper use.

Community workers, when visiting households, should be aware of four general principles: protection, reassurance, information and guidance, all of which are inter-related. The fact that they can offer information regarding mechanisms of increased self-help, provisions for technical aids if needed, in and of itself provides a sense of protection to a disabled person. Most disabled can do more than their self-evaluation allows and hence encouragement and reassurance are of the utmost importance. In developing countries the extended family is the basic social unit and it is rare to find the disabled and the elderly living by themselves. Community workers must involve all family members in the processes of protection, reassurance, information and guidance, so that they can give effective assistance in an emergency, whether it be in the presence or absence of community workers.

Disabled people and disaster survivors in general prefer to receive help from their families and friends, rather than from officials. Within urban and rural communities, there are kinship structures and networks of friendships which should be utilized in establishing definite help-patterns in times of disaster. The initial response to a person's need tends to come first from relatives, who provide shelter, food and clothing, and render other personal services; then the community starts to take over and provide other things beyond the capability of the family; and only then does "the government" enter the picture. But, as has been shown, the community leaders have a part to play long before

disaster strikes. They have to identify the location, size and nature of the disabled population, and disseminate information to the families and others concerned. Their task is made more difficult where, as too often happens, there is a high level of illiteracy. Oral and pictorial means, if not practical demonstrations also, will have to be adopted to provide the necessary instruction. Whenever possible and suitable, however, leaflets should be prepared so that families may have a more permanent reminder of what should and should not be done if an emergency should occur.

GUIDELINES

All Disabled Persons in Emergency Situations

1. When it is known that a disaster or other emergency is likely to occur, the disabled should if possible be alerted before the general public. Fear of the unknown is added to the natural fear of danger and for those who are already disabled and old, the psychological effects are even greater.

2. The disabled often take longer than other people to make necessary preparations once a warning has been given. They should therefore be instructed to have at hand an emergency bag with the most essential items they need. This should be ready at all times.

3. If disabled persons live in high-risk areas, they must be informed what specific action they can themselves take to counter the effects of the probable event. It may not always be possible for people to come immediately to their aid, however many plans may have been prepared.

4. All disabled persons should be given instructions regarding survival techniques, in case relatives and friends or specially assigned assistants have been killed or injured. They should be shown, for example (a) how to protect themselves against fumes, gas and other contaminants; (b) what action to take if their clothes or anything else is on fire in the room; (c) how to breath when there is little oxygen available; (d) how to survive when buried under rubble, an avalanche or other heavy objects.

5. To the extent possible, depending on the kind of disability, disabled persons should be taught how to treat themselves in case of burns, heavy bleeding, skin lesions, etc. They should be provided with a first-aid kit which should be kept in a readily accessible place.

6. Disabled persons should be shown where potential hazards are located in their dwelling place, e.g. the location of the main fuse box, the main water valve, and the gas tap. They must know where the fire extinguisher is placed. Candles and matches should be placed in reach, in case of a major power failure.

7. All disabled persons should carry a paper with the following information:

   i) Full name.
   ii) Full address - or description of home (in rural areas).
   iii) The name of a person to be informed in case of death.
   iv) Description of disability (if this is not immediately apparent) and of any special medicine that is being taken.
   v) The name of a physician, address and telephone number (if any).

The Physically Disabled

1. For those who are tetra-and paraplegic (loss of mobility in arms and/or legs, usually accompaned by loss of peripheral sensations) a bed with wheels and/or a wheelchair must be made available, so that the disabled person can be moved swiftly. If such facilities do not exist, they can be constructed at small cost. A simple wooden platform at the height of a normal bed (so that the tetra-plegic who is totally immobile can be moved over to it) should have two small wheels at the head end, and two handles at the foot end. Anyone can lift up the two handles and move the patient easily. In the absence of a wheelchair, a kitchen chair can be fitted with four small wooden wheels. Paraplegics usually have the use of their arms and can assist in the transfer from the bed to a chair.

2. All persons with impeded movement due to malformation, loss of one of the limbs, spasticity, and lack of co-ordination, should be given additional aids, suitable for the particular case. For example, even if an amputee normally does not use crutches, they should be made available to him for emergency evacuation. Experience has shown that in emergency any simple device that could possible be helpful (even if it is not used in daily life) is better than none at all.

   Community workers (if possible, those with knowledge of social work) should consult the disabled person and find out what his or her particular needs are, and how they can be met.

The Blind and Those With Impaired Vision
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1. People who are blind or only partially sighted may well be totally dependent on household members or neighbours to lead them out of the house to a place of safety. Even if such a person has a guide dog, it may itself become confused or disoriented in emergency.

2. All instructions relating to emergencies should be distributed also in Braille.

3. For those persons who are not acquainted with Braille, emergency plans should be explained orally, and in detail. Relief maps of the area in which the person lives, should be provided and explained.

4. The disabled person should be made familiar with the designated places of assembly and/or shelter, e.g. the church or schoolhouse, and the way leading to them. He should be accompanied there from time to time.

5. Two family members or friends should be assigned to assist when a warning is issued and if an emergency occurs without warning.

6. In case the disabled person has to rely on his own resources, a white cane should be provided: but when familiar objects are out of their accustomed places, its use cannot be relied upon to enable a blind person to move about safely.

7. Particular care should be taken to see that those who are blind, or have impaired vision, receive their proper share of food and clothing distributed after a disaster.

8. If a shelter or safe area has to be used for more than a short period, ropes should be placed along the more frequently used routes, e.g. to the place where meals are served, the medical unit, the toilet facilities, etc., so as to guide the blind to them.

The Deaf, and those with impaired hearing ;

The Mute :
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1. Those who are deaf, or who have difficulties with hearing, are unable to listen to any warning system, radio message or public loudspeaker, and so follow official instructions in case of emergency. It may be assumed that, in most instances, family and

friends will not know enough sign language to communicate what is happening, and furthermore that the deaf person will not be trained in lip reading. For this reason, the immediate family and neighbours must be made aware of the difficult problems they will have to face, and two persons should be designated to be responible for helping.

2. To assist rescue and medical workers, those who cannot hear or cannot speak should wear a sign, prepared in bright colours, in a visible place on the jacket or blouse.

3. Easily recognizable symbols, transmitted by sign language, should be adopted to indicate the nature of the warning to the deaf person.

a) Earthquakes:

A movement with both hands, held palms downwards at waist level, indicating rhythmic shocks, pointing to the ground from time to time.

b) Cyclones, Hurricanes:

Quick, circular movements with the right hand, pointing to the sky from time to time.

c) Floods, Inundations:

Waving movement with right hand just above the ground.

d) Volcanic Eruptions:

Place fingers of both hands together to form a " ", then point in direction of volcano and make circular movements with right hand.

e) Tidal Waves:

Point in direction of the ocean and make large undulating movements with the right hand.

These signs, each with the word for the disaster above the appropriate sign, should be drawn on paper so that the deaf person can memorize them.

4. Those with impaired speech may not be so severely handicapped in coping with an emergency, except insofar as their disability is symptomatic of mental retardation. However, they may have difficulty in communicating to rescue workers, or medical personnel, the nature of their injuries - especially if these are internal and not immediately apparent. In the stress of an emergency, it may be a test of patience to try to understand what a mute person is attempting to communicate. Thus, rescue and other workers should be warned if a mute person is, for example, trapped so that possible spinal injuries may be appropriately treated; in any case, an injured person who is also mute should be so labelled at the triage stage as a notification to hospital staff. A family member or neighbour should be made responsible for giving the necessary warnings, according to the circumstances.

those who are deaf-mute, or mute, should be encouraged to write down their immediate needs and show the paper to others around them. Those who are illiterate should have assistance in learning how to signal their basic needs by drawing symbols that are comprehensible to others. It is important that those who cannot speak carry a small notebook with pencil inside; preferably the book should be attached to the body or clothing so as to prevent accidental loss.

The Mentally Retarded and the Mentally Ill

1. Because there are so many kinds of mental illness, definte guidelines for specific cases cannot be given. One difficulty with the mentally handicapped is that they are often unable to comprehend the nature of the events surrounding them; even more is this so when the familiar pattern of life is suddenly disrupted by, say, an earthquake. Attention must be devoted to preventing them from injuring themselves (or injuring themselves further) by reason of uncontrolled or uncontrollable behaviour. Similar considerations apply to those who suffer from fits (e.g. spastics). Hysteria may easily be manifested by the mentally handicapped in the early stages of an emergency, and it is important that any such outbreak be dealt with firmly and promptly, so that the possible spread of hysteria to other, often distraught, survivors may be avoided.

The involvement of family members and friends, familiar with the particular problem, is of the utmost importance. The family must play an active role in assistance during a disaster and should be made aware of their responsibility. Since mental illness is often manifested by unexpected reactions which do not correspond to reality, those who live close to and share the daily life of a mentally disabled person are most likely to interpret reactions correctly. Community workers should assign two family members and/or friends to accept the responsibility to remain at the side of their disabled members in an emergency.

The family should be advised to have a supply of drugs to calm the mentally disabled person in a situation of heightened fear. Anti-convulsive drugs should be available for those who have epileptic and other kinds of fits.

The Multi-Disabled

1. It would be almost impossible to list all combinations of multiple disabilities. Community workers must listen to individual needs, as perceived by the disabled person, and try to respond by providing appropriate advice to both the disabled person and the members of the family. Constructing special technical aids requires an innovative approach and if rehabilitation personnel are available their advice and help should be sought.

RECOMMENDATIONS

There are several ways of effective implementation of these guidelines:

a) Governments should include them in their manual of disaster preparedness and in their disaster co-ordination and relief plans.

b) Governments should take an active lead in publicizing the information through the public media. Pamphlets, posters and local radio programmes can be utilized to increase the general knowledge regarding the disabled and the particular problems they face in emergencies.

c) The Ministry with responsibility for Public Health and Social Welfare should be instrumental in instructing all health personnel and social workers to disseminate the knowledge down to the community level.

d) The Ministry with responsibility for Education should provide information to primary and secondary school teachers so that they may make children aware of the problems and needs of other disabled children and encourage them to offer all the help they can.

e) Courses in community health and disability prevention should be included in the curricula of medical schools.

f) If any kind of community-based rehabilitation programme is already operating in the country, or if the manual "Training the Disabled in the Community" is being field-tested, instructions for assisting the disabled in disaster should be included.

g) If institutions for the physically disabled, for the mentally retarded and mentally ill exist, their staffs must be instructed how to assist those in their care in emergencies of whatever kind.

h) Voluntary organizations active in disaster relief assistance should be instrumental in relaying the information to volunteers, such as Peace Corps workers, the Scouts, and similar groups.

But since the isolation of the disabled, the lack of information and technical aids is greatest in rural areas, it is extremely important that the guidelines be made known to those who work in, or are concerned with the problems and development of rural areas - for example:

1) churchmen, priests, pastors, missionaries;
2) school teachers;
3) district or community nurses or midwives;
4) the local doctor, religious healer or medicineman;
5) the mayor, chairman of a local council or other similar official, who usually fulfills a political function, but deals also with social problems, and knows about the people in the community;
6) people working in rehabilitation and primary health care;
7) personnel working with National Committees of or for disabled persons.

CHAPTER V

DISASTER PREVENTION - CAN IT HELP THE DISABLED?

As has been noted elsewhere, much of the responsibility for the care of the disabled - particularly residential care - tends to fall on voluntary organizations, although some government resources may be employed, directly or in support of the voluntary bodies, for these purposes. Almost never is there enough money for the necessary capital, maintenance, and running expenses of residential homes, sheltered workshops and medico-surgical facilities dedicated to the treatment and alleviation of disability.

Because of the shortage of funds, organizations and even governments of some developing countries are accustomed to seeking financial assistance from overseas, from funding sources in traditional donor countries. All too often such sources will limit their examination of such requests to things like building costs, first and maintenance costs of machinery, and so on, and compare them with norms established for the country concerned in order to ensure - as they rightly should - that their money will be well spent and that they will receive proper value for it.

In general terms, concern should be aroused in funding sources if the facility for the disabled is, or is to be, located in high-risk areas which are (i) seismically active or known to be traversed by seismic faults; (ii) river-flood plains; (iii) tidal wave flood plains; (iv) subject to tropical storms; or (v) in the vicinity of active volcanoes.

To this list of natural hazards, there should be added the potential man-made hazards which create high-risk areas of their own, e.g.: (i) areas downstream of a dam which will be affected by any sudden release of stored waters; (ii) sites beneath which mining has taken place and where back fill of mine workings has not been practised; (iii) sites in the shadow of industrial refuse tips; (iv) sites in the vicinity of industrial plants subject to explosion risk; and (v) sites located near major airports, and particularly those along the extended centre-line of the main runway(s).

Fire is an ever-present risk, since it may result from the effects of a natural disaster (particularly earthquakes) or from faulty equipment, technology, or action, or simply from human carelessness. Old and densely built-up residential areas where timber structures abound and faulty energy-supply installations are commonplace are some of the worst places in which to locate facilities for the disabled: unfortunately, those disabled people who tend to be most in need of help, and many of the facilities for them, are most often to be found in precisely these places. It is equally in

these parts of cities that water supplies are apt to be unreliable. Their failure at any time, but especially immediately after a disaster, adds measurably to the risk of damage from fire. Prolonged failure of supply can also create health hazards, either from drinking impure water or by the effect on sewage disposal systems. For disabled people, these common results can be especially dangerous.

Thus, the kinds of questions which should be asked by funding agencies are: if the country concerned experiences earthquakes, is the building designed to be proof against shocks of the magnitude which may be expected? If the country suffers from cyclones, will the building withstand high winds? Is it to be built in an area which is unlikely to be affected by flooding? Is it located at a safe distance from a hazardous site - for example, a chemical manufacturing plant? Will there be proper equipment to extinguish fire, and are there adequate fire escapes? Has provision been made for emergency or alternative water and power supplies?

All these and many other similar questions may have to be answered in the negative, because the applicant agencies fear that too high an estimate, made necessary by the inclusion of the necessary features, will invite outright rejection. The funding sources, for their part, if their examination of the project presented to them has been superficial or limited, may be able to congratulate themselves on "getting a a bargain" because of having to spend less but they may at the same time not even be aware of the risks they are creating.

Building location, construction standards, provision of hazard warning systems, evacuation planning, available access for fire and rescue services: all are factors which may one day affect the safety of disabled people (and for that matter, of children and the elderly who, insofar as they are less able to cope readily and fully with emergencies, share many of the problems of the disabled). The timely consideration of these matters is itself an element in the disaster prevention process - that is, of preventing an extreme event from assuming disastrous consequences.