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DISASTER RELIEF CO-ORDINATOR
Geneva

DISASTERS

AND THE

DISABLED



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THE INTERNATIONAL YEAR OF DISABLED PERSONS

The General Assembly of the United Nations, at its thirty-first session, by resolution 31/123 of 16 December 1976 proclaimed 1981 to be the International Year of Disabled Persons.

The aims of the International Year were manifold: to help disabled people in their physical and psychological adjustment to society; to promote all national and international efforts to provide disabled people with proper assistance and training, and make available opportunities for suitable work; to ensure their full participation, equality and integration in society; to encourage study and research projects designed to facilitate the participation of disabled people in daily life; to educate and inform the public of the right of disabled persons to take part in and contribute to various aspects of economic, social and political life; and to promote effective measures for the prevention of disability and for the rehabilitation of disabled people.

A "World Programme of Action Concerning Disabled Persons" was prepared under the aegis of the United Nations Centre for Social Development and Humanitarian Affairs, with the intention of promoting the realization of the goals of "Full Participation" of disabled persons in the social life and development of the societies in which they live, and of "equality": that is, living conditions equal to those of other citizens in their society, and an equal share in the improvement in living conditions resulting from social and economic development.

In October 1981, a "World Symposium of Experts on Technical Co-operation among Developing Countries and Technical Assistance in the Field of Disability Prevention and Rehabilitation" recommended special efforts to assist the developing countries, where a majority of the 500 million disabled persons of the world live. Developing countries have a bigger share of disability problems than the industrialised nations, partly because of malnutrition and other diseases related to poverty, and the lack of hygiene, sanitation and communication systems. While the problems associated with disablement are daily growing more serious, measures to alleviate them are not even meeting the present needs, and certainly will not be sufficient for the expected rise in the numbers of those disabled.

Developing countries in particular will need more technical assistance to help them to deal with aspects of prevention and rehabilitation as well as with the provision of equal opportunities for disabled persons in employment, housing, and access to buildings and transport. Production of technical aids and equipment must be encouraged, using indigenous resources; training must be given in the development of services for the disabled; and attention paid to the special needs of disabled people in rural societies.

In the development of programmes and projects designed to attain these objectives, many organizations in the United Nations system are taking part. UNDRO, the Office of the United Nations Disaster Relief Co-ordinator, has prepared this volume as a contribution to this joint endeavour. It is based upon the work of an UNDRO consultant, Dr. H. Adamsons, who is herself disabled. Due acknowledgment is given to staff of International Labour Organization, World Health Organization, the Secretariat of the IYDP and of the League of Red Cross Societies, who read the text in draft and made many helpful suggestions.

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INTRODUCTION

UNDRO AND THE INTERNATIONAL YEAR OF ----- DISABLED PERSONS -----

The Office of the United Nations Disaster Relief Co-ordinator serves as a world-wide communication centre for the co-ordination of disaster relief. UNDRO has three broad functions: the first is that of relief co-ordination, to ensure that in case of natural disaster or other emergency, the relief activities of donors are mobilized and co-ordinated so as to supply the needs of a disaster-stricken country in a timely and effective manner.

Its second function is that of preparedness: to raise the level of pre-disaster planning and preparedness, including disaster assessment and relief management capabilities, in disaster-prone countries.

Thirdly, there is the function of prevention: to promote the study, prevention, control and prediction of natural disasters including the collection and dissemination of information concerning technological developments.

UNDRO's major contribution to the International Year of Disabled Persons has been to undertake a comparative research project in four developing countries, in order to discover the present condition of people who became disabled as a result of disasters which occurred in the period 1976 - 1980. Two of these countries, Algeria and Guatemala, had suffered major earthquakes, and two, the Dominican Republic and Haiti, had been hit by hurricanes.

Over the years, UNDRO has in general used in its work the categories of "homeless", "dead" and "injured" persons, terms which are also to be found throughout the disaster-related literature. Although unsystematized data regarding the number of injuries are available, little or no attention has been paid by the scientific medical community to those victims who incurred disability. The long-term effects of disaster on health have not been well documented. It is a cause for concern that while national plans for reconstruction of devastated countries include many aspects of renewal, they often omit the physical and mental rehabilitation of people.

The first mission undertaken by the UNDRO consultant in connection with the research project revealed that there are indeed large numbers of disabled disaster victims who, because they have never become identified as a group, often have not benefitted from special rehabilitation measures. Consequently they have remained on the fringes of the society in which they live.

The General Assembly, in its resolution 36/77 of 8 December 1981, urged the agencies and other bodies within the United Nations system to strengthen their capacity to carry out projects in the field of disability prevention and rehabilitation of the disabled. Projects of this kind are of course not within the legal competence of UNDR0.

However, as UNDR0's mandate does direct the Co-ordinator once a disaster-stricken country moves on from the emergency phase, "to continue to interest himself...in the activities of the United Nations agencies concerned with rehabilitation and reconstruction", UNDR0 can properly perform certain functions which would assist other agencies having the necessary competence and authority to act.

In developing countries, the Resident Representative of the United Nations Development Programme (UNDP) acts on UNDR0's behalf, and is guided in his tasks by a series of comprehensive instructions about disaster prevention, preparedness and relief. The Resident Representative is being asked to encourage all those who have worked at a disaster site to gather information about the number and type of disabled victims and to bring this to the attention of the appropriate Government Department (usually the ministry of Public Health) so that if necessary further

assistance can be sought from UN agencies and/or international voluntary organizations specializing in this field. These include: the Vocational Rehabilitation Branch of the International Labour Organization (ILO), which could provide expert assistance in this field to a disaster-stricken country; the World Health

Organization (WHO), which has Programme Co-ordinators in all the developing countries, an Office of Emergency Relief Operations, and Divisions of Strengthening Health Services and Therapeutic and Rehabilitation Technology; the United Nations Children's Fund (UNICEF) has paid particular attention to the problems of disabled children, and given emphasis to the training of specialists in their rehabilitation; the United Nations Educational, Scientific and Cultural Organization (UNESCO) also has an interest in special education for the disabled, and in the cultural and scientific aspects of IYDP related work; and Rehabilitation International, a voluntary organization based in New York, and working in conjunction with the Council of World Organizations Interested in the Handicapped (CWOIH). This latter non-governmental organization assists the United Nations and its specialized agencies to develop well-coordinated international programmes for rehabilitation of the disabled. Furthermore, it serves as a permanent liaison body to develop co-operation between non-governmental organizations concerned with disabled people.

The World Health Organization is promoting, at Headquarters, at its Regional Offices and on the country level, programmes of disability prevention and rehabilitation for disabled persons. Its contribution to the IYDP is a Manual entitled "Training the Disabled in the Community". This manual contains training packages and booklets for self-training and rehabilitation at the family and community level. Guides for local supervisors, teachers and community leaders have

been prepared for teaching family members the family members the process and techniques of rehabilitation for persons with different kinds of disabilities. This training manual can be used in communities where disabled victims of disasters have been returned to their families, and where rehabilitation can then begin immediately.

The present volume is addressed essentially to three groups of people:

- a) those with responsibilities for planning relief operations, particularly emergency health care, and for training medical, para-medical and reserve personnel. Upon their work depends the success of any attempt to reduce the incidence of permanent disability resulting from improper or insufficient treatment of an injured person.
- b) those who care for the already disabled who may be at risk should a disaster occur. Upon their work depends not only the immediate well-being of their patients or family members, but also their protection from the possibility of suffering further long-term handicap, possibly of a different nature.
- c) those who make decisions regarding the establishment, maintenance and improvement of facilities for the disabled. They have an important, although not always recognized, role to play in the promotion of disaster prevention.

It will be apparent, therefore, that a very wide cross-section of the community is, will be,

or could be involved with "Disasters and the Disabled". It is certainly not a subject which concerns only the specialists.

Some, perhaps much, of the advice given could be looked upon as a counsel of perfection. Some of it may be inappropriate in certain societies. Some of it may require for its acceptance financial or human resources which are simply not to be had. Nonetheless, it is no bad thing to set out aims and practices which are beyond immediate attainment. To do so serves as a useful stimulus to greater effort: and it is well to remember that any reader of these words may one day find himself disabled as a result of disaster or accident wholly beyond his control.

CHAPTER I

THE PROBLEM OF THE DISABLED

----- HOW SERIOUS IS IT? -----

Disasters commonly leave in their wake not only physical destruction and human losses but also far-reaching social and economic consequences which are a major factor in retarding the national development process.

Traditionally, an inventory of disaster damage shows diverse categories of losses, usually expressed in monetary terms. Human suffering is quantitatively expressed by reference to the numbers of dead, homeless and injured. The dead are usually buried as soon as conditions permit. The homeless are people who are either temporarily or permanently displaced: they may obtain shelter with members of their family or friends, or receive tents and temporary structures provided by relief organizations. Often, however, they become, or make themselves, responsible for repairing or rebuilding their homes. /1 The injured are an amorphous category,

1/ In the Guatemala earthquake, 1976, in a sample of 100 cases, 92% lost their homes, and 84% of these had no state or other form of insurance.

difficult to define. In disaster statistics, various attempts have been made to standardize categories of injured, so far without result. "It usually means the approximate number who require some sort of medical care and may include some 'normal' diagnoses and routine illness". 2/

CLASSIFICATION OF THE INJURED

A recurring approach to classifying the injured is one that defines the priority in terms of life/death situation, as judged by the attending medical or para-medical personnel. The concept of 'triage' has however not been standardized and may involve three to five categories according to the nature of the injury and the urgency of treatment. Some methods are based on the classification of organs affected, others use a trauma index with a number scale. Obviously, a maximum number of injured have to be treated in a minimum time and this may be as little as 2 or 3 minutes for each patient. During the earthquake in El Asnam, Algeria, four categories were used in sorting the injured according to urgency of treatment and transport criteria.

The injured of PRIORITY I have problems with vital functions (respiration, unconsciousness, circulation) which need immediate treatment.

2/ "The Effects of Disaster on Health" : A Summary, Disaster, Vol. 4 No. 1, pp 14-18, Pergamon Press, Ltd. 1980, Printed in Great Britain.

The group belonging to PRIORITY II comprises the seriously injured who require an urgent operation but can, in a disaster situation, wait 6-12 hours after having received medical first-aid.

To the group of PRIORITY III belong the hopeless cases, whose suffering must be relieved as much by a treatment as by spiritual comfort until they breathe their last.

The slightly injured in the PRIORITY IV group will be separated from the other groups in order to avoid psychic disorders causing the spread of panic and chaos". 3/

Somewhere within these categories of priority are those victims who are either disabled, or who might become disabled: their destiny depends on whether proper training has been given to the rescue teams and on the medical qualifications of those who make triage decisions. 4/

3/ Neff, G. Importance and Psychology of Triage, Disaster Medicine (L) Eds. Frey, R. and Safar, P. Types and Events of Disaster organization in various disaster situations. Springer Verlag, Berlin-Heidelberg, New York 1980.

4/ In Guatemala 1976, of a sample of 100 cases, 47% said they were satisfied with the medical care received at the time; 46% were dissatisfied; and the remainder expressed no opinion. Of a sample of 60 cases from the Dominican Republic (1979 Hurricane) 12% said the medical students and other first-aid personnel were not adequately trained.

So far as can be ascertained, no mention is made in the literature dealing with disasters, and aspects of disasters and health, of those disaster victims who have become either temporarily or permanently disabled. This does not mean that they do not exist. They do, and in large numbers in countries which experienced disasters recently or many years ago.

INCIDENCE OF DISABLEMENT

It is clear that rates of injuries and death, as well as of disablement, depend on several variables. First among these is the type of disaster. It has been suggested that from the point of view of their impact on health, disasters can be conveniently divided into four broad categories: 1) earthquakes, 2) cyclones and other destructive winds unaccompanied by floods, 3) flash floods, including sea surges, 4) other inundations. The table below illustrates this point:

Frequently Observed SHORT TERM HEALTH EFFECTS OF MAJOR NATURAL DISASTERS	EARTHQUAKE	HIGH WINDS	TIDAL WAVE FLASH FLOOD	FLOOD
DEATHS	MANY	FEW	MANY	FEW
SEVERE INJURIES REQUIRING INTENSIVE MEDICAL CARE	OVERWHELMING	MODERATE	FEW	FEW
INCREASED RISK OF INFECTIOUS DISEASE	POTENTIAL PROBLEM IN ALL MAJOR DISASTERS (Probability rises with overcrowding and deteriorating sanitation)			
FOOD SCARCITY	RARE (May occur due to factors other than shortage of food)	COMMON	COMMON	COMMON
MAJOR POPULATION MOVEMENTS	RARE (May occur in heavily damaged urban areas)	RARE	COMMON	COMMON

In an earthquake a ratio of one dead to three injured is not uncommon. The earthquake at Skopje. Yugoslavia in 1963 left 1,070 dead, and 3,500 injured; 1,200 of the injured became permanently disabled.

A report concerning the Guatemalan earthquake in 1976, in which some 23,000 people were killed and an estimated 76,000 injured, provides statistical information, even though the authors point out that "the reliability of the reporting system under emergency conditions was very low. A significant number of these patients (11.5%) were found to have fractured clavicles. This type of lesion suggests that most of the persons in question were injured by falling roofs or walls, while they were standing up, but more data are needed to confirm this hypothesis. In other localities spine and pelvic fractures were regarded as "common". 5/ The authors estimate that about 3,000 injured persons in Chimaltenango, 7,000 in Tecpan and 6,000 in Comalapa received first-aid medical care, but these three localities by no means represent the full extent of the area affected by the earthquake.

5/ "Earthquake in Guatemala : Epidemiologic Evaluation of the Relief Effort" C. de Ville de Goyet, E. del Cid, A. Romero, E. Jeannee and M. Lechat, Reprint from the Bulletin of the Pan American Health Organization, Vol. X, No. 2, 1976.

Preliminary findings from the UNDR0 research project in the two countries which experienced hurricanes show that a significant number of persons were left with physical disabilities, such as spinal cord lesions, blindness and deafness. 6/ Even more than a year after the event, they apparently had not received any kind of rehabilitation, and were not registered at the Ministry of Health. In one of these countries, the medical personnel who were asked if they had either treated or seen disabled victims cited thirty-five such observations. 7/ It would appear then, that cyclones, wherever they occur, do indeed leave disabled victims behind.

Because there are so many variables it is rather dangerous to generalise on the probability of injury or death simply by reference to the kind of disaster. The time of day, the pattern of life, the season of the year, the kind of housing, the degree and type of industrialization in the area affected - all these can have marked effects on casualty rates and play havoc with "normal" predictions.

6/ In a sample of 100 cases interviewed in rural Haiti, 39% knew someone who became physically disabled as a result of the cyclone.

7/ In a sample of 60 medical personnel in the Dominican Republic, 44% either treated disabled victims or saw them during the disaster (cases of loss of extremities, blindness, problems of trauma of spinal cord (tetra-or paraplegic), deafness).

"Data collection has rarely been considered a priority after disaster and such information as we have mostly been gathered by "entrepreneurs", often doctors and scientists who find themselves in a disaster by chance rather than by design".
8/

It seems safe to assume that no assessment mission of any national, international or voluntary organization has paid attention to those who have become disabled, or followed up their rehabilitation, if any. 9/ A rough estimate of the incidence and immediate information on the prevailing kinds of disablement are pre-requisites for planning national programmes and international assistance. Without doubt, people who during the disaster suffer injuries which may result in permanent disability, and those who suffer immediate disability, need longer and more extensive treatment than that which can be provided by first-aid emergency units. A person who has lost an arm or leg, or has become paralyzed, is by

8/ The Effect of Disaster on Health: A Summary, Disaster Vol. 4 No. 1, pp 14/18 Pergamon Press Ltd. 1980.

9/ In Guatemala, in a sample of 100 cases, 13% cannot, because of injury, return to former employment (i.e., they need vocational rehabilitation). 62% would like to receive vocational rehabilitation.

definition permanently disabled, and such visible disabilities must obviously be recorded as quickly as possible so that the necessary long-term treatment can be provided. More intensive and systematic attention to this subject would be a real step toward prevention of disabilities. Measures for improved protection could be established, if people were informed about where the main dangers lie.

DEFINITION

It may be useful to define the group whose existence requires special measures to be taken. The International Classification of Impairments, Disabilities and Handicaps, published by the World Health Organization, describes three categories all of which must be taken into consideration in disaster preparedness plans. "In the context of health experience, an impairment is any loss or abnormality of psychological, physiological, or anatomical structure or function. A disability in the context of health experience is any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being. In the context of health experience, a handicap is a disadvantage for a given individual, resulting from an impairment or a disability, that limits or prevents the fulfilment of a role that is normal, (depending on age, sex, and social and cultural factors) for that individual". 10/

10/ "International Classification of Impairments, Disabilities and Handicaps", World Health Organization, Geneva 1980, pp 27-30.

While "impairment" and "disability" are strictly medical terms, a handicap is a social consequence of a given disability. Depending on the attitudes of others towards the disabled person and the physical environment experienced, a disabled person finds him- or herself more or less handicapped. Disabled persons who have had the privilege of being rehabilitated (so far as physically possible), whose fellow men accept them as they would any other human being, and who live in a society where the general physical environment is accessible, may be disabled, but they are not handicapped.