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CULTURAL EVENT FOR DISABLED PERSONS IN THE
ESCWA REGION: AN EVENT TO MARK THE END OF UNITED NATIONS
DECADE OF DISABLED PERSONS (1983-1992)
IN THE ESCWA REGION
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Amman

A BACKGROUND PAPER FOR DISCUSSION ON
IMPLEMENTATION OF WORLD PROGRAMME OF ACTION
CONCERNING DISABLED PERSONS IN COUNTRIES OF
THE ESCWA REGION AND PREPARATION OF THE REGIONAL
LONG-TERM STRATEGY TOWARDS THE YEAR 2010

DISABILITY: SITUATION, STRATEGIES AND POLICIES

Department of International Economic and Social Affairs

United Nations Decade of Disabled Persons, 1983–1992

DISABILITY: SITUATION, STRATEGIES AND POLICIES



UNITED NATIONS
New York, 1986

NOTE

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Preface

The purpose of this study is to present and analyse a large volume of national and international material on disability that was submitted to or collected by the Centre for Social Development and Humanitarian Affairs, Department of International Economic and Social Affairs of the United Nations, in relation to the observance of the International Year of Disabled Persons 1981, and its follow-up.

United Nations agencies and organizations in the field of disability are also discussed in the present study. The intention however is not to give a complete account of their activities, but to analyse only selected material made available to the Centre in its role as focal point on disability issues within the United Nations system. Owing to the nature of the study, problems are raised throughout and tentative solutions put forward, but no overall conclusions or recommendations are made.

It is hoped that this publication may open the debate carried on during and after the International Year of Disabled Persons to a wider public and provide a stimulus for further discussion and action to improve the situation of disabled persons.

The study was prepared on the basis of research undertaken by Professor S. Arora, acting as a consultant for the Centre for Social Development and Humanitarian Affairs of the Department of International Economic and Social Affairs of the United Nations.

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INTRODUCTION

This study of the situation of, and the prospects for, disabled persons is based upon documents and research material collected by the Disabled Persons Unit of the Centre for Social Development and Humanitarian Affairs of the United Nations Department of International Economic and Social Affairs. This material includes the national reports submitted to the United Nations by Member States on steps taken by them during 1981, the International Year of Disabled Persons. These national reports illustrate the current situation of disabled persons and provide information on the measures proposed to alleviate their situation. Material has also been drawn from reports of the regional meetings on the Year and the regional Plans of Action, from a series of special papers published for the United Nations World Symposium of Experts on Technical Co-operation among Developing Countries and Technical Assistance in the Field of Disability, held at Vienna in October 1981, and from the draft of a study entitled "Full participation of disabled persons" prepared in connection with the Year. This study used data from the publications of organizations in the United Nations system, especially those of the International Labour Organisation (ILO), the World Health Organization (WHO), the Food and Agricultural Organization of the United Nations (FAO) and the United Nations Children's Fund (UNICEF). In addition, material published by various non-governmental organizations interested in disability problems, as well as research studies sponsored by Governments and academic institutions, have been used.

The study is divided into two parts. The first part deals with the meaning of disability and related concepts, at both a theoretical and an operational level. The different types of disability, and the conditions that tend to cause or accompany their incidence are examined as are the problems that arise when measuring disability, both within and between nations. The extensive disability data that have been made available through various studies, sponsored not only by the United Nations and its agencies but also by research institutions and national Governments, are disaggregated. Disability in developed and developing countries is discussed, together with its incidence in relationship to such variables as urbanization, age, and the socio-economic conditions that affect, as well as result from, disability.

The second part of this study focuses on the objectives and strategies that have been evolved at national and international levels for solving the problems associated with disability. This part opens with a theoretical discussion of objectives, especially as defined in the World Programme of Action concerning Disabled Persons (UN [1]), and of the trends inherent in the strategies evolved to deal with disability problems. Three sections then follow, each corresponding to the objectives stated in the World Programme of Action: prevention, rehabilitation and participation, and equalization of opportunities. With respect to prevention, data is examined that deals with programmes on primary health care; education; legislation; and the effects of differing infrastructures. Rehabilitation is viewed from the standpoint of problems that can arise from increased family and community responsibilities; effects of a changing labour market and unemployment; programmes of protected work for disabled persons; education and institutionalized care; and effects of social-welfare programmes. Finally, the problem of societal participation by disabled persons, both as individuals and in groups, is touched upon, and an attempt is made to place this problem in the wider context of the relationship between economic well-being and levels of participation in society.

It is apparent from the materials used that a degree of consensus is emerging regarding the measures that are necessary to alleviate the problems of disability, which is a significant step forward. However, it should be stressed that many of the policy recommendations arising from discussions on disability are based on incomplete data. Developing and developed countries have untapped sources of information, both governmental and non-governmental, on the nature and incidence of disability. It would be possible to organize and analyse the data from these sources to compile an accurate history of disability.

Besides these considerations are the series of policies and measures that concretely affect disabled persons, and then divergent interests and values come into play. The significance of the global consensus of values provided by the World Programme of Action, formally endorsed by the States Members of the United Nations, is relevant because of the different perspectives involved. Its guidelines provide an opportunity and a direction for forward movement in a task that affects the future of humanity.

Part One

CONCEPTUALIZATION, INCIDENCE AND CAUSES OF DISABILITY

In order to deal with the problem of disability, it is necessary to define it, to account for the conditions associated with it, and to understand the distribution and numbers involved. These parameters are still unclear. First, the definition of disability, upon which estimates, surveys, planning and policy are based, vary enormously. Some countries include mental disabilities, others do not. Often such terms as impairment, disability and handicap are used interchangeably. Secondly, procedures through which the disabled are accounted for are not standardized. The available data are so uneven and incomplete that most countries present estimates most cautiously. As one careful assessment of the situation concluded in 1981: "Not more than 10 or 15 countries are capable of giving national statistics in this area with a margin of error inferior to 50 per cent" (Elmandjra [2], pp. 17-18). Under the circumstances, it is difficult to draw conclusions on disability that are based on comparisons across countries and regions.

I. DEFINITION OF DISABILITY

In an attempt to clarify the situation, the World Health Organization (WHO) drew up a Manual, International Classification of Impairments, Disabilities and Handicaps: A Manual of Classification relating to the Consequences of Diseases, providing classification schemes and definitions of basic terms (WHO [3]). In this Manual, three sequential schemes were suggested as possible consequences to a disease or disorder as follows:

Impairment: Concerned with abnormalities of body structure and appearance and with organ or system function resulting from any cause; in principle, impairments represent disturbances at the organ level.

Disability: Reflecting the consequences of impairment in terms of functional performance and activity by the individual; disabilities thus represent disturbances at the individual level of the person.

Handicap: Concerned with the disadvantages experienced by the individual as a result of impairments and disabilities; handicaps thus reflect interaction with and adaptation to the individual's surroundings.

The three schemes are thus presented as frameworks to "facilitate policy development in response to the problems, clarifying the potential contributions of medical services, rehabilitation facilities, and social welfare respectively" (WHO [3], p. 11).

Regarding handicaps, WHO directs attention to "the most important dimensions of disadvantageous experience - orientation, physical independence, mobility, occupation, social integration, and economic self-sufficiency" (WHO [3], p. 14).

Such definitions, and the classification schemes that are included in the Manual, suggest problem-solving sequences by which, through the guidelines provided, it becomes possible to define and intervene at one level, and thereby modify the conditions that might follow. The situation is, however, complex; it is possible, for instance, to suffer from an impairment or even to be disabled without becoming handicapped. The WHO classification does not resolve all the complex issues involved, but decidedly it brings order to a disorderly situation.

The classification schemes, however, have not yet been adopted. In 1982, the General Assembly of the United Nations in its resolution 37/53 requested WHO to review its definitions of impairment, disability and handicap in consultation with organizations of disabled persons and other appropriate bodies. At the same time, the Assembly, in its resolution 37/52, adopted the World Programme of Action, in which a number of concepts are defined, as follows:

"Handicap is therefore a function of the relationship between disabled persons and their environment. It occurs when they encounter cultural, physical or social barriers which prevent their access to the various systems of society that are available to other citizens. Thus, handicap is the loss or limitation of opportunities to take part in the life of the community on an equal level with others." (UN [1], pp. 2-3.)

From this perspective, the following definitions are developed:

"Prevention means measures aimed at preventing the onset of mental, physical and sensory impairments (primary prevention), or at preventing impairment, when it has occurred, from having negative physical, psychological and social consequences.

"Rehabilitation means a goal-oriented and time-limited process aimed at enabling an impaired person to reach an optimum mental, physical and/or social functional level, thus providing him or her with the tools to change her or his own life. It can involve measures intended to compensate for a loss of function or a functional limitation (for example by technical aids) and other measures intended to facilitate social adjustment or readjustment.

"Equalization of opportunities means the process through which the general system of society, such as the physical and cultural environment, housing and transportation, social and health services, educational and work opportunities, cultural and social life, including sports and recreational facilities, are made accessible to all." (UN [1], p. 3.)

Through these definitions the emphasis is shifted from the individual to the environment. Rehabilitation, which is directed at the individual, is no longer seen as the ultimate solution to the problem of disability; adjustments are not only necessary at the level of the individual with a disability, but within the general system of society.

II. MEASUREMENT OF DISABILITY

In order to move towards a more accurate assessment of the world-wide situation of disabled persons, the United Nations, as an integral part of its activities for the International Year of Disabled Persons, drafted a questionnaire on the world situation of disabled persons. Circulated among Member States in March 1980, the questionnaire had elicited 64 responses by May 1981: 22 from African countries, 15 from Europe, 11 from North and South America, 11 from the Asia and Pacific region, and 5 from West Asian countries.

The questionnaire denoted the main areas of interest. Information was requested on the availability of a system for collecting statistics on disabled persons or for making estimates; indication of trends in the occurrence of different categories of disability; main causes of physical and mental disability; preventive measures taken and their effectiveness; curative measures taken and evaluation of the adequacy of existing rehabilitation institutions; indication of progress and obstacles to the operation of these institutions; description and evaluation of technical capacities related to the manufacture of equipment and aids for disabled persons; description of bilateral, regional and multi-lateral technical assistance projects in the field of disability prevention and rehabilitation; and indication of further technical assistance needed. (Lennkh [4].)

Analysis of the responses to the questionnaire revealed that the 64 countries differed considerably with respect to their systems for the collection of statistics on disabled persons. Few countries were in a position to report comprehensive data collections on the situation of disabled persons. The majority had to rely on estimates based on rather limited data, amounting to little more than guesswork in some cases. The analysis of the questionnaires revealed that the immense variety of techniques and methods of data collection were accompanied by an almost complete lack of agreement on the definitions and criteria related to impairment and disability. Clearly, such heterogeneity of data could permit only the most cautious of comparisons, and even those had to be limited, in scope and content, to a few countries.

There have been other efforts made to rectify the confusion characterizing concepts, terminology and methodology. The Centre for Social Development and Humanitarian Affairs and the United Nations Statistical Office of the United Nations Secretariat organized an Expert Group Meeting on Disability Statistics in April 1984. The outcome of that Meeting was two reports on methodological issues, and some concrete proposals to develop statistical tools in the context of disability [5].

The stimulus of the Year has also generated a series of attempts in several countries to understand, record and report on the prevalence and nature of disabilities. By 1984, it was estimated by the United Nations that approximately 45 countries had collected benchmark data on disabled persons as a basic input to their national planning.

These surveys, utilizing different methodologies and having a variety of objectives, none the less have shown two important trends: "Acceptance of a much more broadly based definition of disability, encompassing groups often

excluded from such surveys, and a heightened awareness of international instruments and definitions of disability, which should lead to improvement of cross-national comparisons of data." [6] Some idea of the range of concerns can be obtained from a sampling of the reports on surveys and censuses currently under way or completed.

Australia's Bureau of Statistics, for instance, carried out a survey of the needs and problems experienced by people with handicaps, utilizing definitions based on the WHO classification of impairments, disabilities and handicaps. The survey revealed that 13 per cent of the total population were disabled, and of these, almost two-thirds were handicapped. Handicapped Australians were found to be much older than the average age of the whole population.

Canada reported on the development of a nation-wide data base on disabled persons, which included statistics on type of disability and on implications for specific areas such as education, employment and housing.

In Belgium, the Fonds national de reclassement social des handicapés estimated that one person was disabled for every 12 or 13 people under 65 years of age. A survey in Wellington, New Zealand, similarly concluded that 1 in every 12 persons was physically disabled.

In the United States of America, the disability implications of the United States Census for 1980 and Current Population Survey studies conducted in 1981 and 1982 were subjected to analysis. Based on information on non-institutionalized persons between the ages of 16 and 64, the analysis showed that 8.6 per cent of Americans of working age reported a disability that limited the amount or kind of work they could do, or prevented them from working at all. The survey showed that the average disabled American was older (50 years old) than the average working-age American (34 years old), and that disabled persons were less educated and poorer. While the typical working-age Americans worked, only one in three disabled persons in that category participated in the labour force.

Japan's national survey of disabled persons over 18 years of age was conducted by the Ministry of Health and Welfare in February 1980. Results showed that the number of disabled persons was 3.5 million, composed of 2.1 million with physical disabilities, 0.4 million with mental retardation, and 1 million with mental illness. Whereas 62 per cent of the general population in Japan were employed, only 32.3 per cent of disabled persons were employed, approximately the same proportion as among the American disabled.

Some of the more extensive surveys have been conducted by developing countries. In Africa, Zimbabwe carried out a national disability survey as part of the International Year of Disabled Persons. The survey is probably among the more ambitious in-depth surveys of its kind in the developing countries. It was supported by the Government of Zimbabwe and the United Nations Children's Fund (UNICEF). An important finding was that the majority of the disabilities recorded were caused by preventable factors.

Nepal's International Year of Disabled Persons Committee sponsored a survey of disabled persons in that country. The investigation was organized by the Social Services National Co-ordination Councils, based in Kathmandu, with the assistance of WHO and UNICEF. The results of this survey provided what can be regarded as a comprehensive mapping of the extent and causes of disability in Nepal.

In India, the resources of the National Sample Survey were deployed by the Government to chart the prevalence of disability. This survey covered 61,858 rural and 56,452 urban households, and provided data on the extent of visual, hearing, speech and locomotor disabilities. The Republic of Korea too used the sample survey technique. It conducted its first sample survey of disabled persons in 1979, and now plans to carry out such surveys regularly.

The importance of such surveys lies in the fact that, for the first time, it is becoming possible to assess and compare cross-national and regional data on disabilities and their causes. The stimulus of the International Year of Disabled Persons has facilitated a greater degree of agreement on definitions of disabilities, and promoted a measure of uniformity in the instruments for measuring disabilities.

III. INCIDENCE AND CAUSES OF DISABILITY

In 1950, the United Nations estimated that 3 per cent of any country's population were disabled (Jansson [7], p. 4). In 1983, it was estimated that more than 500 million people in the world were disabled as a consequence of mental, physical or sensory impairment ([1], p. 1). If the number of family members whose lives may be affected by the necessity of caring for a disabled relative are added to the number of disabled persons, it is possible that, at least insofar as productive potential is concerned, some 25 per cent of any country's population may be affected by disability. WHO expects that these proportions will not change for the next 15 years; they may even increase slightly.

Disability appears to be most frequently discussed in terms of its incidence in industrialized as opposed to developing countries. Apparently, 80 per cent of all disabled persons are located in the rural areas of developing countries (UN [1], p. 13). There are estimates that in some of these countries 20 per cent may be disabled, leading to the speculation that with families and relatives included, disability may adversely affect 50 per cent of their population. Clearly, then, in absolute numbers, there are many more disabled persons in developing than in industrialized countries.

Differences in the estimates of the incidence of disability, however, vary widely between different countries. In Bangladesh, the proportion of disabled persons may be as high as 15-20 per cent; the Libyan Arab Jamahiriya and the Republic of Korea report a figure of less than 3 per cent; the Netherlands reports 10 per cent; and Poland reports almost 14 per cent. Such wide-ranging estimates, even allowing for differences in definition, make it unreasonable to assert whether a higher proportion of disability, as a broad, undifferentiated category, is likely to occur in the industrialized or developing countries.

It is possible to generalize on the types and causes of disability in industrialized and developing countries, however, with the realization that once disability data are disaggregated, there is little standardization of the categories used. Causes and effects may be included in the same typology; and questions of "ultimate" or "original" causes or conditioning factors are often too difficult or too delicate to discuss.

The United Nations questionnaire divided causes of disability into four categories:

- Genetic/hereditary factors
- Biological factors (disease)
- Accidents
- Socio-cultural and environmental conditions.

These categories are not mutually exclusive, especially when related to the types of disability to which they give rise. The current state of data collection probably precludes an accurate assessment of this problem and Lennkh [4] analyses the results of the questionnaire without making any attempt to quantify responses with respect to the causes of disability; however, the report provides a useful discussion of them.

It is with respect to the first category only, genetic/hereditary factors, that paucity of data prevents even tentative generalizations. Lennkh merely notes that there was "little indication of the relative magnitude of the problem".

The second category, disease, is easier to document. It is reported as "one of the major causes of physical and mental disability" [4]. There is evidence of differential patterns prevailing in industrialized and developing countries. Poor pre- and peri-natal conditions, and diseases suffered during pregnancy seem more prevalent in developing countries, largely due to the lack of facilities available for the care of pregnant women. Other major causes of disability reported by developing countries are infectious/parasitic diseases. Most frequently mentioned were poliomyelitis, leprosy, tuberculosis, trachoma, onchocerciasis, and ear and eye infections. Those developing countries offering the least extensive preventive medicine programmes reported that such diseases as measles, rubella, diphtheria, tetanus, smallpox, meningitis, encephalitis, and venereal and endemic diseases such as malaria tended to account for a notable proportion of disability.

Industrialized countries were more likely to report somatic and metabolic diseases, and chronic and degenerative disorders. While "a significant number" of developing countries mentioned cardiovascular, respiratory and rheumatic diseases as important causes of disability, these disorders were more frequently mentioned by industrialized countries. Industrialized countries were also more likely to mention as causes of disability such diseases as diabetes, cancer, diseases of the nervous system and sensory organs, digestive and genito-urinary diseases, allergies and "professional illnesses".

Chronic mental illness, Lennkh notes, was cited more often by industrialized than developing countries. The World Programme of Action notes one factor responsible for the rising numbers of disabled persons as being "stress and other psycho-social problems associated with the transition from a traditional to a modern society" (UN [1], p. 13). Certain trends have been perceived that indicate an increase in mental illness, especially in countries considered to have long since made such a transition. For instance, it has been noted that over the past 25 years, at least in Europe, there has been a shift in the types of disability that predominate among those attending ILO vocational rehabilitation centres. Earlier, respiratory conditions were the most common cause of disability among those using these centres; currently, more than one third of the users are mentally disabled (Cooper [8], p. 194). A similar trend has been noted in Poland, where "recently the number of those disabled by mental illness ... referred to the invalids' co-operatives have increased substantially" (Kempinski [9], p. 82).

Accidents are the second major cause of disability reported by all countries, regardless of their state of development, in their responses to the United Nations questionnaire. This conclusion is also reached in an analysis of the causes of disability in the world's population based on data provided by WHO (Hammerman [10], p. 16). Traffic accidents are an important cause of disability. The number of people estimated to have been injured in road

accidents in one year, 1978 for instance, was 10 million, two to three million of these seriously ([11], p. 57). Results of the questionnaire indicate that industrialized countries may possibly be holding their own domestic and traffic accident rates at a steady level by preventive measures. In developing countries, however, they are on the increase. Accidents at the workplace are also an increasingly important cause of disability. In developing countries these are rapidly increasing due to increased mechanization and motorization, and poor training of the workforce in the use of new machinery. Mining and wood-felling accidents are often singled out.

Socio-cultural and environmental causes, the fourth category of causes of disability, are discussed only in their relation to the poor in developing countries; such factors as poverty, ignorance, superstition, urbanization, social change, and drug and alcohol abuse are mentioned. However, the industrialized as well as the developing countries are becoming increasingly concerned about environmental causes of disability, including the effects of the work environment, such as working with hazardous materials and the wider effects of air pollution. The Government of Canada, for example, listed mercury, noise, asbestos, arsenic, nuclear-waste spills and other toxic waste contamination among the increasing causes of disability (Lennkh [4], p. 10).

In contrast to Lennkh's report, WHO makes an attempt to quantify data on the causes of disability. In a background paper prepared for a meeting of WHO in 1980, data on the expected causes of disability were given (table 1) together with ILO projections for the year 2000.

Table 1. Causes of disability, and projections of disabled for the year 2000

Medical causes	Estimated disabled people		
	Percentage	1975	2000
Congenital disturbances			
Mental retardation (not all of these are congenital in origin)	7.7	40	60
Somatic hereditary defects	7.7	40	60
Non-genetic disorders	3.9	20	30
Communicable diseases			
Poliomyelitis	0.3	1.5	2.3
Trachoma	1.9	10	15
Leprosy 0.7	3.5	5.4	
Onchocerciasis	0.2	1.0	1.5
Other 7.7	40	60	
Non-communicable somatic disease	19.3	100	149
Functional psychiatric disturbance	7.7	40	60

continued

Table 1 (continued)

Medical causes	Estimated disabled people		
	Percentage	1975	2000
Chronic alcoholism and drug abuse	7.7	40	60
Trauma/injury			
Traffic accidents	5.8	30	45
Occupational accidents	2.9	15	22
Home accidents	5.8	30	45
Other 0.6	3.0	5.0	
Malnutrition	19.3	100	149
Other	0.4	2.0	3.0
Total 100.0	516	774	
Correction for possible double counting (-25%)		-129	-194
Corrected total		387	580
World population		4 000	6000
Annual growth rate of disabled people, 1975-2000: 1.63%			

Source: Disability Prevention and Rehabilitation, Reports on Specific Technical Matters, WHO, Geneva, A29/INF.DOC/1, 28 April 1976, p. 17; Labor Force Estimates and Projections, 1950-2000, vol. V, ILO, Geneva, 1977, table 5.

WHO estimates that two thirds of all impairments can be categorized as follows (Hammerman [10], p. 15):

- (a) Birth injuries;
- (b) Infectious diseases;
- (c) Accidents;
- (d) Malnutrition.

The first three categories are somewhat similar to those employed in the analysis of causes of disability in the United Nations questionnaire. The fourth category, however, malnutrition, represents only one aspect of the wider category, socio-cultural and environmental conditions, but its importance cannot be under-estimated. The Administrator of the United Nations Development Programme (UNDP) has stated that "the single principle cause of disability in the poorest countries ... is widespread malnutrition" [12].

Malnutrition is a category that illustrates the difficulty of making any precise analytical distinctions between types of disability and cause, or of drawing a distinct line between causes and the conditions that give rise to

them. For instance, lack of knowledge and financial means condition the incidence of malnutrition. The disabled may include those who suffer from malnutrition, and malnutrition is the cause of some types of disability, for instance, brain damage.

Any inquiry into the causes of disability should go beyond medical causative factors, especially if preventive and rehabilitation policies are being planned. The categories of accidents and malnutrition go beyond medical causation, as does what is perhaps the exceptionally broad category of socio-cultural and environmental conditions.

The General Assembly, in its resolution 34/154, stated that "disability should be viewed as a relationship between an individual and his or her environment", in which case the state of the economic environment is as relevant in considering the incidence of disability as any of the other causes or conditions underlying disability.

According to Berkowitz ([13], p. 52), in the United States of America disability is often conceived primarily as a medical problem or a health-related inability to work. Yet another study, made at the beginning of the stagflation in the late 1970s stated that: "The dramatic increase in the proportion of handicapped persons unable to work regularly or at all is the result of a rapid decline in employment opportunities and not to changes in the medical or social characteristics of the severely and occupationally disabled." (Leviton and Taggart [14], p. 151.) For many, disability may not be a serious problem given a favourable labour market with a wide choice of suitable jobs. Disability becomes a problem, a handicap, when there are high rates of unemployment in the working population.

Given world economic interdependency, such problems are seldom limited to single nations. Concern over this factor is undoubtedly felt in many, if not most, regions of the world. Attention was drawn to this condition at the regional meeting of the Economic Commission for Africa and the Organization of African Unity (OAU) in 1980. The meeting expressed concern that the causes of much disability in Africa could be traced to socio-economic conditions resulting from an unjust economic order [15].

Conflict and violence are other causes of disability, though they are often underplayed. In the report on the questionnaire, for instance, it is suggested that injuries occasioned by war and armed conflicts be included under the category of accidents. In table 1, compiled by WHO, war is not mentioned. According to Hammerman WHO reports that, "war and civil unrest" are considered together with natural catastrophies, recreation and sport as one category: WHO estimates that there are at least 3 million people who have been disabled as a result of such causes ([10], p. 15).

Yet war, alone, accounts for a significant proportion of disabled persons today. In Japan, almost 5 per cent of disability in people over 18 is caused by war, which is slightly more than that caused by either traffic accidents or infectious diseases. In Zimbabwe, approximately 13 per cent of all disability has been caused by war [6]. The regional meeting of the Economic Commission for Africa/Organization of African Unity in 1980 drew attention to the fact that "the causes of disability are often imposed on Africa by external phenomena such as decolonization, struggles for liberation, aggression ..." [15].

Persons disabled by war are often treated as a separate category by Governments; they tend to be the first, and sometimes the only, disabled persons to receive disability pensions or other compensation. One study

suggested that all countries that participated in the world wars should treat their war disabled under separate, more favourable schemes. In Mozambique, for example, there is no pension system at all, except for soldiers wounded in combat.

Despite lack of attention to this factor in both the United Nations questionnaire and the WHO report, from its inception, the United Nations has made efforts to deal with this aspect of the disability problem. Forty years ago, when the United Nations was founded, a major task that faced the world was the rehabilitation of the millions of people whose lives had been devastated by the Second World War. The earliest activities of the United Nations, therefore, focused upon mobilizing resources to bring relief and to restore a semblance of normalcy to such people (ECOSOC [16]).

The official Canadian account of rehabilitation activities on behalf of war-disabled persons directs attention to the problem of war and disability:

"Not many Canadians realize that in the generation from 1915 to 1945 Canada was engaged one third of the time in total war. During these years over 100,000 young Canadians died and almost 200,000 suffered wounds or disease as a result of their service." (Woods [17].)

From 1946 to 1950, the rehabilitation of veterans cost the Canadians more than any other service.

The term "rehabilitation" was, in fact, seldom used or understood prior to the First World War. ILO published a report in 1921 on attitudes towards the compulsory employment of disabled ex-servicemen; it also described its first initiatives in the field of vocational rehabilitation [18]. This was followed, in 1923, by the convening of a meeting of experts to study the methods of finding employment for disabled veterans.

While war, armed conflict and internal strife have always contributed to the numbers of disabled persons, it is estimated that since the end of the global hostilities of the Second World War over 150 armed conflicts have taken place. As stated in the World Social Report, "there is no discernible trend toward fewer conflicts" ([19], p. 28). Moreover, these conflicts have been taking place mostly in the poorer countries of Africa, Asia and Latin America. The World Social Report also notes a five-fold increase in the number of refugees between 1975 and 1985, from 2 million to 10 million.

Disability also arises from deliberate governmental policy; the World Social Report states that "punishment such as flogging and amputation are judicially prescribed in some countries and have become more frequent in recent years" ([19], p. 54). The World Programme of Action has drawn attention to the victims of torture who have become disabled mentally and physically ([1], p. 15).

Amnesty International expressed the hope that the International Year of Disabled Persons would help to create a permanent awareness of two needs: to end the deliberate infliction of disablement by human beings upon each other, and to provide the means to treat and rehabilitate the victims of such inhumane treatment.

IV. DISTRIBUTION OF DISABILITY

Development and disability

There is a tendency when considering disability to differentiate between industrialized and developing countries, and to focus more on the developing

countries. While it is true that the majority of the world's disabled persons live under conditions of severe deprivation, disabled persons are disadvantaged in all countries. Also, the economic situation may make a great deal of difference in the life-style of disabled persons regardless of the general level of development of a country.

The available data give no grounds to suppose that, compared to a developing country, an industrialized country will have a smaller proportion of its population identified as disabled. Development leads neither to an automatic increase nor a decrease in the numbers of disabled. The situation and number of disabled persons in a country depend upon the type of social policy adopted, and on the measures taken to prevent, detect and treat impairment and to rehabilitate the disabled. The profiles of disability may alter, for instance as a developing country becomes more developed, but the direction of this alteration depends upon medical and social measures. Alternative frameworks for social, economic and political change do exist under which a rapid transformation of policy towards the disabled could take place, even in developing countries, if intensive efforts were made to adopt contemporary, advanced and humane measures.

A scheme that provides "skipping stages" needs to be set alongside one that provides "stages of development". Discussion of disability need not be confined to the industrialized/developing dichotomy. One of the major achievements of United Nations initiatives on behalf of the disabled has been clarification of the international situation, and the establishment of international norms. This has made possible a more rapid development of attitudes and policies of a humane and responsible kind. For an understanding of the problem of disability, factors besides development need attention, such as the degree and nature of urbanization; age distribution; and socio-economic circumstances.

Urbanization and disability

Because developing countries tend to be predominantly rural, disability in such countries is largely regarded as a rural problem; statistics show that 80 per cent of the world's disabled persons live in rural developing countries.

Given the trend towards greater urbanization, it may give an insight into what may be expected if data on urbanization is considered. For instance, Donohue cites United Nations Statistics showing that while only 28 per cent of the populations of developing countries were living in urban areas in 1975, by the year 2000, 44 per cent of these populations are expected to be urban ([20], p. 22). With respect to world-wide population increase, one estimate shows that while in 1980, 63 per cent of such increase was in urban areas, in the year 2000, 83 per cent is expected to be urban ([20], p. 46). In view of this trend, it is important to analyse the magnitude and causes of disability in urban areas, and how, if at all, disability is associated with urbanization.

The relation of urbanization and disability requires discussion at two levels: the general effect of living in an urban environment; and the urban phenomenon of slums. First, it is possible that rates of disability are higher in urban than in rural areas. A governmental study in the Netherlands, for instance, found that the percentage of physically handicapped persons was higher in urban than in rural areas [21]. There are several conditions associated with urban life that affect the incidence of disability. Environmental factors, such as smog or other pollutants, may cause illness and disability, especially among those already suffering from some disease. Urban

areas and the pace of life are stressful, not least when experienced by recent migrants from rural areas. Alcohol and drugs tend to be more accessible, and thus there may more easily be excessive use of them.

Road accidents are also another factor of disability. It is reported by WHO that in the Netherlands, over one third of all persons disabled as the result of accidents were injured in road accidents ([22], p. 35-36). But the problem is hardly limited to industrialized countries. In Delhi, India, between 1957 and 1979, the population rose 156 per cent. During the same period, the number of vehicles there increased 1,677 per cent, and the number of deaths per traffic accident by 461 per cent ([22], p. 16-17).

Secondly, the prevalence of urban slums has an effect on disability rates. In the 1960s and 1970 an estimated 30-60 per cent of the urban populations in developing countries lived in slums; the current estimate is 50 per cent. The proportion of slum dwellers or squatters in some cities exceeds 60 per cent: for example, Addis Ababa, 79 per cent; Casablanca, 70 per cent; and Calcutta, 67 per cent (Donohue [20]).

Slums are hardly confined to the cities of developing countries. Not only are they found in developed countries but also, due to recessions and high rates of unemployment, slum-dwelling and even homelessness may be increasing there. Slum-dwelling, wherever it is found, increases the risk of communicable diseases, malnutrition, accidents, and alcohol and drug abuse.

One indicator related to disability is infant mortality. In the slums of Port-au-Prince, Haiti, over 20 per cent of babies die before the age of one year; another 10 per cent or more die in their second year. This mortality rate is almost twice that of the rural areas of Haiti. But Rohde states that "the rich of the same city enjoy rates comparable to urban United States of America" ([23], p. 37).

The irony in such statistics is that in the cities of developing countries, where a little over a quarter of the world's population live, 75 per cent or more of health-care resources and labour are concentrated [23]. The mal-distribution of these resources is not a function of urbanization; nor need it be a function of the process of development. It should be considered in terms of the different quality of health-care accessible to the rich and poor regardless of where they may be living.

Age and disability

Types of disability, their numbers and causes differ according to age group, which is partly due to the aging process. However, the seriousness of the problem of disability within each age group also depends on the social and economic environment within which the disabled live. Where there is a lack of good preventive services and primary health care, disability among children tends to predominate. This lack of primary health services appears to contribute to the fact that population profiles show greater numbers of disabled among the young. This makes the problem of disability among children extremely pressing, especially in developing countries.

In developed countries, while the problem of childhood disability is still important, there is a tendency for disability to predominate among the rapidly expanding elderly population. Rehabilitation in terms of

"independence" or work is, for this group, unreasonable, or even impossible. It is thus necessary to consider solving the problems of elderly disabled persons in a different way.

Disability among children

In 1980, a study was done for UNICEF that surveyed the world situation of childhood disability [24]. This study underscores two points: first, "The interrelationships between child disability and poverty are especially evident in rural areas and in urban slums in the developing world. The principal causes of disability - inadequate nutrition, faulty child-bearing practices, diseases, infections, and accidents - are products of poverty, ignorance and insufficient services. Thus the risk of impairment is greater for the children of the poverty-stricken." Secondly, the resources allocated for the prevention and treatment of disability in poor countries are "virtually without exception being spent on high-cost projects which serve relatively few children and ignore the great majority who are at risk of, or affected by, impairment". Both these points indicate how similar the fate of the disabled child is to that of the disabled adult, given similar economic circumstances.

The current estimate is that 1 child in every 10 is either born with or acquires a physical, sensory or mental impairment. Based on this estimate, the world population of disabled children is placed at 140 million, of which 120 million live in developing countries and are without access to rehabilitation services of any kind [24]. Estimates of size, however, vary between countries. A United States Office of Education survey of American school-age children (between the ages of 5 and 19 years) classified 10 per cent as handicapped, a statistic not very different from the estimate of world-wide incidence of childhood disability. However, a UNICEF report on Bangladesh observes that the extent of physical and mental disabilities "may rise to 15 and 20 per cent, depending on definitions used and conditions included" (Talukder [25]).

The regional distribution of disabled children is estimated by UNICEF at 6 million in North America, 13 million in Latin America, 11 million in Europe, 18 million in Africa and 88 million in Asia.

The causes of disability in children on a world scale have been estimated by UNICEF; non-communicable somatic diseases, congenital diseases and malnutrition are each said to account for almost 20 per cent of disability among children [11]. Malnutrition accounts for many types of disabilities, both directly and indirectly. Its worst form, known as acute protein energy malnutrition or "wasting", is estimated to affect 35 per cent of the children of Africa; 16 per cent of the children of Asia; and 4 per cent of the children of Latin America ([19], p. 52).

A study of physically disabled children in Bangladesh (Mia [26]) describes the extent of the problem and shows the socio-economic conditions and the attitudes of the communities within which they live. The study also gives the larger context where the overwhelming majority of the children live under conditions of deprivation, though disabled children are usually even more deprived. In stark terms, the Bangladesh study notes that the opportunities for proper growth and development are either severely limited or non-existent for the handicapped child (see table 2).

Table 2. Statistical summary of findings on handicapped children

	Rural	Urban
Families surveyed	24 858	15 350
Families with handicapped children	499	276
Children below 15 years	61 802	40 974
Handicapped children	520	290
Handicapped children per thousand families	20.92	18.89
Handicapped children in Bangladesh (estimated)	266 244	19 215
Average size of the families surveyed	5.35	5.72
Average size of families with handicapped children	6.65	7.25
	(Percentage)	
Organ most affected: leg	25.10	27.58
Age at which majority of disabilities occurred: after birth but within 5 years of age	41.15	48.27
Proportion of handicapped children who received no treatment	29.42	22.76
Proportion of handicapped children who have handicapped relatives	19.60	15.17

Source: Ahmadullah Mia et al., "Situation of handicapped children in Bangladesh", Assignment Children, vol. 53/54.

The conditions revealed in the Bangladesh study illustrate findings in other studies. For instance, an earlier survey of the developing countries of the Commonwealth noted that in these countries almost every child is handicapped by nutritional problems, and that not more than 2 per cent of handicapped children attend school. It identified three major problems associated with handicaps: malnutrition, adverse public opinion and employment after finishing school.

The Commonwealth report also drew attention to the relationship between the socio-economic environment and the mental development of children. It recalled the findings of an earlier survey made in 1905 that might well be pertinent to an analysis of conditions prevailing in many, if not most, countries today. That survey left no doubt "sickness, physical disability and bad living conditions were largely responsible for the retarded educational and mental development of these children", and raised the question whether mental disability did not play a subordinate role to physical disability.

Disability among children presents serious problems for the industrialized countries also. There is evidence to indicate that in the developed world the amount of severe infant disability is rising. One report attributes this partially to the decrease in infant mortality, which implies that more disabled infants are now able to survive. It states that "the very procedures which lead to improved infant mortality may also create severe disabling: increased resuscitation of newborns related to oxygen deprivation at birth, increased number of obstetric deliveries related to more forceps-delivery induced brain damage" (Hammerman [10]).

While disability tends to affect the old more than the young in developed countries, data from Sweden show that mental disability prevails more among the young, that is, children and young adults. As of 1977, for instance, 9 per cent of the mentally retarded were below 10 years of age; 25 per cent between 10 and 19; 24 per cent between 20 and 29; and 15 per cent between 30 and 39. Only approximately 27 per cent of mentally disabled persons were above 40, the proportion sharply decreasing with age ([27], pp. 47-48).

Disability among adults

In order to identify and deal with problems of disability among adults, it is useful to divide them into two groups: adults of working age and those above retirement age.

Attention is frequently drawn to the problem of disability among adults of working age, generally in respect to its economic consequences. The Economics of Disability [11], for instance, is oriented to the problems posed by disability among this group, with emphasis on how to integrate them into the workforce, and how their labour can be cost beneficial.

A report by the Government of Sweden made in connection with the International Year of Disabled Persons relates types of adult physical disability with age groups ([27], p. 42-43). It is based upon the analysis of data pertaining to the Swedish population between 16 and 74 years of age (see table 3). It can be seen from table 3 that the largest proportion of people who are limited in mobility, who have hearing disabilities or suffer from epilepsy or pulmonary diseases fall in the age group 45-64 years, that is, among those below Swedish retirement age. Moreover, of those who express a "feeling of limited work capacity", over two-thirds are still of working age. For disabled persons of this age group, the relevancy of work, but also the relevancy of early retirement appears to be worth considering.

Table 3 seems, perhaps inadvertently, to draw attention to the importance of differential approaches to rehabilitation with respect to both a working-age population and an older group for whom integration into the workforce is irrelevant. According to the table, over half of the adults disabled by limited mobility and heart disease, and the largest proportion of those suffering from limited eyesight, severe limitation of mobility and diabetes are above retirement age. On a more general level, the group making up the greatest proportion of disabled persons in Sweden are over retirement age [28].

Data from other developed countries point to a similar conclusion, although the cut-off point of "old", at least from the statistical standpoint, may vary from country to country. In an Australian survey of 33,000 households conducted in 1981, for instance, 36 per cent of disabled persons were 65 years or older, an age category that constitutes only 9.7 per cent of the general population [6]. A survey in New Zealand, excluding those with mental

Table 3. Distribution of physical disability among adults in Sweden
(Percentage)

Age group	Limited eyesight	Limited hearing	Limited mobility	Severe limitation of mobility	Feeling of limited working capacity	Heart disease	Pulmonary disease	Diabetes	Epilepsy	Allergy	Psoriasis
16-44	21.3	17.9	7.0	9.8	17.2	3.1	26.5	17.0	48.1	68.1	65.6
45-64	35.6	42.6	42.6	47.0	51.0	41.1	40.2	41.0	42.4	23.1	25.4
65-74	43.1	39.5	50.4	43.3	31.8	55.8	33.3	42.1	9.5	8.8	9.0
Total	100	100	100	100	100	100	100	100	100	100	100

Source: Levnadsförhållanden, Rapport Nr. 25, Handikappad. Delaktig och Jämlik? (Stockholm, Sveriges Officiella Statistik, Statiska Central Byran), 1981, pp. 42-43.

disabilities, found 40 per cent of physically disabled persons to be "elderly" [6]. A governmental study in the Netherlands found that 2 per cent of persons between 5 and 24 years of age were physically handicapped, whereas 35 per cent of those 75 and older were physically handicapped [21].

The extensive problems of disability affecting those over retirement age call for solutions within a radically different set of parameters compared to those appropriate to the problems affecting younger groups. For elderly disabled persons a "job", or "independence" is not a reasonable rehabilitation goal. Applied to elderly persons who are disabled as a group, the term rehabilitation may not be relevant or humane. A better understanding of the problems of this group can be obtained if the fact of their probable, ultimate physical as well as financial dependency is faced. This should be kept in mind in industrialized countries, where elderly persons are the predominant age group among the disabled population. It is also relevant, however, to the analyses of disability in developing countries, for there, too, the proportion of population over 65 is rapidly increasing.

Socio-economic conditions and disability

The relationship between socio-economic conditions and disability may be discussed from two different standpoints: first, that of assessing the degree to which socio-economic conditions affect the risk of disability. With this analysis, the emphasis is on how socio-economic conditions may have contributed to, or even been the cause of, a person becoming disabled. Secondly, that of an assessment of the likelihood that disabled persons, perhaps even regardless of their socio-economic conditions prior to their disability, will, by virtue of their disability, become economically and socially disadvantaged. Unfortunately, socio-economic factors as causes or effects of disability are not always analysed separately.

The effects of socio-economic conditions

Socio-economic conditions as related to disability are often discussed within the wider context of developing countries. As these countries are usually conceptualized as poor, the causes of disability are as much associated with poverty as they are with development. One report to the ILO, for example, predicts that disability will increase in developing countries because "the absolute number of people in the developing world living in poverty is increasing" (Hammerman [10], p. 4).

In dealing with the problem of disability, it may be misleading to use the terms "poor country" and "developing country" interchangeably, or to confine a discussion of the effects of economic conditions on disability to the developing countries. First, as already noted, the problem of disability is affected by the state of the economy, regardless of the state of development. Factors such as recession and the rate of unemployment play a role, and these factors condition, and are conditioned by, a country's policies, particularly the orientation of its labour market.

Secondly, the weight of the economic burden of disability for an individual or family is considerably affected by the social policy of their country, sometimes even irrespective of their own personal socio-economic position. The national policy of providing free health services to all or to assume much or all of the additional costs associated with disease and impairment must be established.

Thirdly, while most disabled people live in developing countries, and most people in those countries are poor, distinctions between socio-economic groups within those countries must be made in any analysis of disability. The Bangladesh study [26] indicates, for instance, that the landless day labourer is the occupation with the highest proportion of families with handicapped children in rural areas (29 per cent), and in urban areas (31 per cent). It is particularly important to draw attention to the relationship between socio-economic circumstances and the likelihood of a person becoming disabled in those countries where free public services are inadequate; only those with their own financial means will be able to afford an adequate diet, prenatal care or immunizations available only through private medical care.

Data from developed countries also support the relationship between the social group and the incidence of disability. In the United States, for instance, a survey was conducted of two socially disadvantaged sub-populations, namely, Blacks and American Indians. Holding age and sex constant, it was found that risks of disability were approximately twice as great in those two groups as in the general population (Noble [29]). There is also data to indicate that for families in the United States with annual incomes under \$2,000, the incidence of visual disability is 12.3 per thousand; while for families with incomes over \$7,000, it is 1.59 per thousand (Bowe [30]). Another United States study, which concerned mentally handicapped persons, concluded that the children of the poor are about 13 times more likely to be mentally retarded than those from the middle and upper classes (Conley [31]).

Occupation also affects the likelihood of disability. For instance, Swedish data on pensioners between 65 and 85 years of age reveal that 38 per cent of retired farmers and 30 per cent of retired workers suffer from a physical (mobility) disability compared to only 21 per cent of retired salaried employees [28].

The effects of disability on socio-economic condition

The likelihood of disability itself affecting a person's socio-economic condition is difficult to ascertain accurately. Attention should be drawn to the fact that socio-economic disadvantages tend to be associated with physical or mental disability in both developed and developing countries. The Republic of Korea is one of the few developing countries for which data of this type are available. A sample survey conducted in 1979 revealed that even among the 22 per cent of totally disabled persons who held jobs, income tended to be far below the average for the general population.

Data from developed countries reveal similar results. United States census data from 1980, for instance, show that, compared to the general population, disabled Americans are two and a half times more likely to have incomes below the poverty line [6]. It has also been found that 60 per cent of working-age handicapped Americans exist near or below the official poverty level. Still another set of figures indicates that the median family income of severely disabled men was less than half the national average. 32/

Canadian and British data reveal a similar association of economic disadvantage and disability. In the United Kingdom of Great Britain and Northern Ireland, fewer disabled than non-disabled persons owned their own homes, fewer had substantial assets and consumer durables in their homes, and fewer had the right to occupational pensions [33]. A Canadian study showed that 73 per cent of disabled persons had no personal property of value; 93 per cent, no real property of value (Brown [34]).

All this data, inadequate as it is, supports the generalization of the World Programme of Action that "while the risk of impairment is much greater for the poverty-stricken, the converse is also true ... the occurrence of disability in the family often places heavy demands on the limited resources of the family ... thus thrusting it deeper into poverty" [1]. Such a statement assumes, often quite reasonably, that it is the family alone, or to a large extent, that must bear both the additional costs of disability, in terms of specialized care and equipment, and the financial losses incurred by unemployment or decreased earning capacity.

As already noted, a country's social policy can considerably alleviate the effects of such disadvantages, but it is difficult to remove them completely. Even in Sweden, which has one of the most comprehensive programmes of financial support and rehabilitation for disabled persons, a relationship prevails between relatively disadvantageous economic conditions and disability. Of all Swedish people suffering from a mobility disability or reduced eyesight, 52 per cent are working class, only 17 per cent are salaried employees [28]. As a group, disabled persons have worse working conditions than the general population of the same age; and they have reported lower average earnings as well as lower increases in earnings (between 1977/78 and 1980/81).

Part Two

OBJECTIVES AND STRATEGIES

V. THEORETICAL CONSIDERATIONS

Objectives

The World Programme of Action has defined three objectives towards which programmes concerned with the disabled should aim: "prevention of disability, rehabilitation and the realization of the goals of 'full participation' of disabled persons in social life and development, and of 'equality'" ([1], p. 3).

The line between prevention and rehabilitation is not always clear. The World Programme of Action notes that prevention of disability involves activities ranging from the "improvement of hygiene, education, nutrition, better access to food and health care" to "special attention to mother and child care; counselling parents ...; immunization and control of diseases and infections; accident prevention; and improving the quality of the environment" ([1], p. 15).

Rehabilitation has been defined variously, depending on the purposes that lie behind such definitions. Until recently it has been most often understood as a medical problem. Sometimes the definitions have been oriented to identifying the measures that would enable a person to work and earn a living. Increasingly, however, the definition of rehabilitation has widened to include an understanding that beyond the physical or mental conditions that prevent a disabled person from working are other needs and potentialities. Going beyond the disabled person, attention is increasingly being placed upon the larger social context within which the disabled person lives, since it is this milieu that largely determines the consequences of disability.

The services necessary for rehabilitation are listed in the World Programme of Action, as follows ([1], p. 5):

- (a) Early detection, diagnosis and intervention;
- (b) Medical care and treatment;
- (c) Social, psychological and other types of counselling and assistance;
- (d) Training in self-care activities, including mobility, communication and daily living skills, with special provisions as needed, e.g., for the hearing impaired, the visually impaired and the mentally retarded;
- (e) Provision of technical and mobility aids and other devices;
- (f) Specialized education services;
- (g) Vocational rehabilitation services (including vocational guidance), vocational training, placement in open or sheltered employment;
- (h) Follow-up.

The demand for greater accessibility to public buildings, removal of barriers and traffic safety, and the concern about the consequences of modern technology are among some of the wider and newer dimensions of rehabilitation.

Unresolved is the point at which rehabilitation can be assumed to have been completed because its range and scope are dependent upon the type of social policy that is in operation in any given country. In some developed countries, the expectations are that systems of social security should cover all types of socio-economic risk, regardless of cause. In most countries, however, rehabilitation appears to refer largely to the relationship between disability and the risk of unemployment. The direction of the World Programme of Action indicates a movement towards the more comprehensive understanding of rehabilitation.

Regarding the third objective, "full participation" and "equality", the World Programme of Action defines these goals as the achievement of "opportunities equal to those of the whole population and an equal share in the improvement in living conditions resulting from social and economic development". It also states that "these concepts have universal relevance and should apply with the same urgency to all countries, regardless of their level of development" ([1], p. 1).

It reiterates that it is the environment that largely determines the effect of an impairment or a disability on a person's daily life. People remain handicapped when they are denied the opportunities necessary for "the fundamental elements of living, including family life, education, employment, housing, financial and personal security, participation in social and political groups, religious activity, intimate and sexual relationships, access to public facilities, freedom of movement and the general style of daily living" ([1], p. 6).

Trends in strategies

Until the mid-1970s, the problem of disability was largely dealt with by building institutions, especially in towns, and training highly specialized personnel. In most countries there was a tendency to concentrate on the type of institutionalized, specialized care that catered almost exclusively to the needs of the middle or upper class. Even where there was a commitment to making such facilities generally available the emphasis remained on care and services administered through specialized institutions or separate schools.

Increasingly, however, this direction has been changing and current strategies emphasize concepts such as integration and normalization. There has been a trend towards de-institutionalization, and towards integrating disabled persons into normal schools and ordinary work situations.

Many countries and international organizations, including the United Nations, are increasingly adopting strategies that provide care within communities where disabled persons live. Community-care almost invariably involves the family, especially in small, rural settlements and such strategies emphasize the importance of the family in providing the greater part of the care and sustenance needed by the disabled person. In addition, the integration of services for the disabled into the more general public services is being advocated ([1], p. 16). The United Nations in particular values what is termed "intersectoral collaboration", whereby, for instance, importance is placed on health-care workers co-operating directly with other agencies of the Government such as those concerned with the water supply, agriculture, education and rural development (de Kadt [35], pp. 573-584).

The community

Community participation forms an integral part of the broad strategies for social development that have evolved within the United Nations system. Of special importance are the "basic needs" approach of ILO, the "basic services" of UNICEF and the emphasis on primary health care by WHO. The overall aim of these strategies is to direct resources to sections of the population, such as the disabled, who have not been included in development programmes. These strategies not only extend services, but also involve people in articulating their own needs and in helping to implement programmes to fulfil those needs.

Based on its field experience, for instance, UNICEF evolved the concept of basic services, which was formally endorsed as a policy by the General Assembly of the United Nations in its resolution 31/167 of 21 December 1976. The basic needs approach was elucidated in 1976 at the World Employment Conference of the ILO.

Basic services and basic needs are approaches to the same problem, but there are conceptual and operational nuances. The concept of basic needs is concerned not only with material needs, but also with human rights, participation and self-reliance. It offers an overall approach to the problems of development involving all sectors of the economy and society. Implicit in any application of the basic needs strategy is structural transformation, involving redistribution of economic and political power. The basic services strategy is based on the recognition of local initiatives, support for population participation, decentralization of technical and administrative services, and special attention to remote rural areas and slums.

In brief, the basic needs strategy implicitly recognizes the necessity of redistribution of resources and power, while the basic services strategy focuses more attention on the local level, stressing greater improvisation and innovation. Both seek to resolve some of the more unacceptable aspects of global poverty by highlighting areas of common interest between the deprived and the existing institutional structures.

The elaboration of a strategy and its implementation are by no means identical. When the populations to be targeted by the strategies are situated in socio-economic conditions that vary enormously, and when the distribution of power ranges from a relatively egalitarian one to a dictatorial one, the results of implementation are likely to be extremely varied. One assessment by Mand [36] of the consequences of the implementation of such strategies notes:

"In a few cases, activities have been repressed or self-help has been used to define situations where the poor have to work on projects imposed from above, while freeing capital for the improvement of the conditions of the more privileged. In many other cases, community participation has indeed led to increased self-reliance and better conditions of existence, but its large scale extension has proven to be complex."

The practical exclusion of large sections of the rural population as well as depressed sections of the urban areas from the benefits of services demonstrate that it is not sufficient merely to advocate that everyone participate in decision-making at the community level. It may be necessary for groups of people, such as poor or disabled persons, to organize themselves and demand, or even provide, their own services. Such a viewpoint may rest on a lack of confidence in a Government's capacity, or will, to expand existing services and to provide coverage to those who most need it.

Such organization of the disadvantaged, however, is never easy. The organization of the deprived and unorganized tends, at one level, to threaten seriously the local power structures; and, at another level, to bring into question the authority and power of established governmental services and private-service organizations. It is because of this that community participation commonly consists of the poor contributing labour and other services to complete projects that are defined by élite minorities within the community, or even outside the community.

Genuine participation encompasses the formulation of projects, and their execution and evaluation. Under conditions of authentic community participation, the flow of benefits, which is the distribution of power, would be placed on the agendas of community debates. Such ideal conditions are rarely present in rural areas or urban slums.

In comments submitted to the United Nations by the Council of World Organizations Interested in the Handicapped, there is a need to be aware of the ambiguity in discussions on community responsibility for rehabilitation, especially on "community-based" services, whether in developed or developing countries. There is a need to distinguish between advocating "community-level" and "community-based" services. One approach advocates that more local volunteers and private organizations take over the financing and administration of care programmes for disabled persons. This strategy, evolved at a time of world-wide economic stress, could be seen as an attempt not only to decentralize services and make the scale more humane, but also to relieve the authorities, whether local or national, of financial and administrative burdens. A second approach, while still utilizing the term community-based services, places more emphasis on the level of government responsible for the services. While embodying the need for participation of all local groups, it stresses that more responsibility should be decentralized and placed in the hands of the local governmental administrative and decision-making units.

Regardless of how the term may be used, it is important to recognize that a strategy based largely on community-based services and rehabilitation is not necessarily consistent with the realization of the goals of participation and equality. This inconsistency is commonly acknowledged, but reactions to it tend to fall into two categories. One reaction may be typified by that of Rehabilitation International in its report on childhood disability to the Executive Board of UNICEF ([24], p. 55), which states that:

"It may be necessary to accept the fact that, although a sophisticated surgical intervention is known or a school successful in teaching children with a given problem exists, they can be obtained only on the other side of the world, or at least beyond the area that is accessible to this child and his or her family."

To deal with disability, at least in developing countries, the report states that "simple measures that are potentially within the capabilities of the people and the communities involved", are advocated.

This approach may be contrasted with another, which confronts the issue of unequal treatment for disabled persons in industrialized and developing countries. In the Vienna Affirmative Action Plan 37/ (IYDP/SYMP/C.2/Rev.1), it is stated that:

"Disabled persons in the developing countries, even when low-cost criteria are applied, should not get the second best but the best available services and technology. The International Year of Disabled Persons theme 'Full Participation and Equality' means that they should fully share the benefits of social and economic development. They should be provided with as high a standard of rehabilitation as possible."

In the Vienna Affirmative Action Plan it is conceded that "a number of problems can be solved within the community where disabled persons live, and the primary task is to fully utilize these possibilities". However, "we should not place the whole burden on the community or the family alone, nor should we expect the community services to be sufficient to meet the complex prevention and rehabilitation requirements. The whole of society must participate within its available resources in resolving these problems [37]."

In sum, community care of disabled persons needs to be viewed in the context of (a) the differential socio-economic patterns that characterize different communities; (b) the differential capacities of communities, whether in developed or developing countries, to deal with their problems; and (c) the support system of financing and services available from other, higher levels within the national system. Awareness of these complexities was expressed in the report of the European Regional Seminar on the International Year of Disabled Persons held at Siilinjärvi, Finland, May-June 1981 [38]. This report drew attention to the role that the State should be expected to play vis-à-vis the communities entrusted with the care of disabled persons:

"... the state retained a duty to ensure that where services were decentralized the local community had sufficient resources to ensure that the level of services was maintained and that there was an adequate incentive to promote genuine participation."

The family

The family occupies a central position in the strategies for the care of disabled persons. Its role is becoming not only increasingly important in strategies drawn up by groups and countries, both developed and developing, but also in policies advocated by the World Programme of Action and such organizations as UNICEF and WHO. The capacity of the family to undertake its recommended responsibility and care for and support a dependent, disabled member depends largely on three factors: its socio-economic situation; whether it is within a social security system; and the nature of the family unit.

Regarding the socio-economic situation, even in developing countries, economically better-off families are able to take care of their dependants in ways not at all open to the majority of families that subsist on the margin of the economy. For the latter, disability under conditions of poverty can only spell continuous vulnerability and a life devoid of even the most elementary dignities. Economic deprivation constricts social choices as well, and leads to feelings of inefficacy, an inability to affect the world outside. Families subsisting under such strained conditions are inadequately equipped to provide the care and security needed by those suffering from disabilities. Devoid of opportunities for work, unaware of the rights due to them, lacking resources of the basic kind, this is the condition of millions of disabled persons whose families, not by design but by attrition, have had to bear ultimate responsibility for their welfare.

Under such circumstances, an undifferentiated understanding of what "family" means is a severe injustice to the deprived and disadvantaged. It is incumbent upon those who urge that the family should assume greater responsibility for disabled persons to face up to the extreme conditions of dependency with which poor families have to cope. Independence and participation are possible only where there is at least a minimum of resources available; but the reality for many families of disabled persons in developing countries, and for probably the majority in the developing world, is one of acute resource scarcity and social and political exclusion.

Regarding a social security system, the weight that a family must bear will differ considerably, depending on whether or not it lives in a society that has an institutionalized system of free health care and of social service. To be a dependant, either financially or for care or services, in a society without provision for welfare is to place great burden upon the family.

Even today, by far the majority of countries operate without either adequate free medical care or a social security system that guarantees a minimum of dignity and welfare to the disabled irrespective of whether they count on the informal care and security of family and kin. To emphasize the importance of the family without giving attention to the wider availability, or lack, of accessible health services and institutionalized social security can serve more to obscure than to clarify the issues involved.

Regarding the family as a social unit, both historically and currently, the concept of the family taking the burden of responsibility for its disabled members may be receiving a new impetus from current strategies for dealing with disability. This, however, is hardly a new idea. Probably everywhere it has been the family that has traditionally catered to the needs of its disabled members; especially where there has been no other provision for help, the burden of ensuring their care and support has fallen on the family. However, under the pressures exerted by urbanization and the changing patterns of production and employment, the institution of the family has been subjected to so much stress that it has been weakened. On the one hand, the extended (or joint) family has been retracting into a nuclear form. The situation in Ghana, as described in the Economics of Disability [11], is perhaps not unrepresentative of this process:

"In Ghana the extended family has always been responsible for the disabled, the orphaned and the deprived. Yet social and economic change can be seen to be breaking down the traditional systems. Industrialization and urbanization are eroding the ability of the extended family to provide this support. The extended family is giving way to the conjugal family; when both parents are wage earners working away from home and non-disabled children attend school, the disabled child or adult is left to fend for himself or herself."

This concern is hardly limited to developing countries. In Japan, the disadvantages resulting from a shift from extended to nuclear families has been expressed by a non-governmental coalition of organizations working on behalf of disabled persons:

"Change in social structure resulting from rapid urbanization, the lapse of solidarity in community and increasing nuclear family bring about breakdown and cause social problems which hinder disabled persons from becoming self-sufficient." ([39], p. 2.)

The Japanese report highlights the context within which the family is to be found. Larger and far-reaching changes within society have affected the composition and quality of family ties. Such remarks provide a useful corrective against the emotional rhetoric supportive of the family. It brings attention to the pressures that originate outside the family unit, and simultaneously helps to clarify how the fate of the disabled person is intimately bound up with events and tendencies in the wider society.

Moreover, even in countries characterized by nuclear family units, outside stresses and strains are having their effect. The nuclear family is being called into question, and such families are being urged to assume greater responsibility for the care of their disabled members. Greater atomization and increasing individualism are to be contrasted by social solidarity and collective responsibility. The family under current circumstances is a problematic social unit in the industrialized world, and its evolution depends largely upon factors outside itself.

VI. PREVENTION, REHABILITATION AND PARTICIPATION

As of 1981, the United Nations system spent about \$7.5 million per year on rehabilitation and prevention of disability, or \$1.50 per disabled person per year in the world. About two thirds of these activities are estimated to be in the area of prevention, one third in the area of rehabilitation. An agency such as UNICEF devotes 90 per cent of its expenditure on disability prevention, and only 10 per cent on rehabilitation ([2], p. 29).

Prevention of disability

Primary health care

Primary health care is usually seen as a system of basically rural, multi-functional health centres, perhaps supplemented by mobile health clinics and flying doctor services. It has been called "the most important strategy available to any society for first-level prevention of impairment and disability" [10]. WHO has summarized the measures at primary prevention (see table 4), and has estimated that if there were an effective primary health-care service, approximately one half of all disability could be prevented. Preventive health measures, within the framework of primary health-care services, can perhaps best be discussed in terms of immunization; perinatal, pre- and post-natal care; and early detection and early treatment. Primary prevention measures could prevent one third of all disability; and another 15-20 per cent of disability could be "avoided or postponed" if there were adequate secondary preventive measures [40].

Immunization programmes have already proven successful with respect to particular diseases as smallpox. An estimated two thirds of all disease could be wiped out with proper immunization schemes, but only about 10 per cent of the approximately 85 million children born each year are immunized (Elmandjra [2], p. 25).

The World Health Organization has emphasized the need for immunization against poliomyelitis, one of the most disabling of diseases. Under its Expanded Programme of Immunization (EPI) there are six target diseases: in addition to poliomyelitis are tuberculosis, measles, tetanus, diphtheria and whooping cough. By 1979, as many as 99 countries had already "indicated their commitment to this programme", eventually to cover all new-borns in developing countries ([2], p. 21). These six diseases have been singled out for attention by UNICEF also; the Executive Director of UNICEF has stated that world-wide immunization programmes against these six diseases could save 5 million children a year from disability at a cost of only \$3 per child [12].

Table 4. First-level prevention measures

Problem	Measures	Agents for preventive action
Communicable disease	Vaccination, proper water and sewage systems, hygiene education	Primary health care, public works, health authorities
Road accidents	Legislation, inspection of cars, traffic regulations etc., education in traffic behaviour	Traffic authorities, community school teachers
Home accidents	Community education, improvement of home installations and housing	Legislation, community leaders, teachers
Work accidents, occupational diseases	Legislation and law enforcement, engineering measures, health control of workers, monitoring of accidents and environmental hazards, safety committees	Occupational health authorities, management labour organizations
Alcohol and drug abuse	Legislation and law enforcement to decrease availability, restrictions, attitude changes etc.	Health authorities, community leaders, social welfare
Nutrition	Changes in farming outputs, improved distribution and information, control of gastro-intestinal infections, supplementary feeding legislation	Agricultural authorities, health sector
Burns	Redesign of cooking stoves, use of less dangerous fuel	Community leaders
Traumatic lesions following falls from trees	Construction of safety belts to be used when climbing trees	Community leaders
Complications of pregnancy and birth	Full coverage of pregnant women by maternal and child services, legislation, education, attitude changes etc.	Local and central health authorities, community leaders

Source: World Health Organization, "Programme and policy for disability prevention and rehabilitation" (A29/Inf. Doc/1), table 2.

There are, however, problems, even when the administration of such programmes is backed by political will and commitment, and the experience of Ghana may be typical. Ghana's report, drawn up in connection with the International Year of Disabled Persons, draws attention to some of the difficulties involved in having a proper immunization programme, for instance, "the lack of health education to make people realize the importance they should attach to the immunization of their children. There is also a chronic shortage of vaccines and non-maintenance of the cold-chain that casts doubt on the potency of some of the vaccines to be used".

Another aspect of primary health care emphasized in connection with disability is maternal and child care and the services to be offered especially at times of child bearing and immediately thereafter. The types of programme in this area mentioned in response to the United Nations questionnaire included human genetics advisory services; marriage guidance and family planning; perinatal, pre- and post-natal services; early detection of disability and early stimulation of "high risk" children; administration for mothers covering child care, nutrition and general health education (Lennkh [4], p. 14). The Japan Council for the International Year of Disabled Persons recommended establishing nation-wide emergency medical-care systems, especially for maternal and child care.

Studies of handicapped children carried out in Jamaica for a project on the prevention of handicap of perinatal origin found that:

"At least 50 per cent of handicap is perinatal in origin, i.e., it arises as a result of adverse factors operating during pregnancy, birth and the first few months of life; furthermore our studies have also revealed that much of this handicap could be prevented by greater attention [to] improved care and public education related to pregnancy and birth."

Such concerns are not limited to developing countries. There is evidence that due to technically better birth procedures, the incidence of congenital disabilities and disabilities associated with the birth process are increasing in the industrialized countries (Hammerman [10], p. 62). Preventing or avoiding pre-natal damage is among the areas that have received the main effort during the International Year of Disabled Persons in the industrialized countries [41].

Part of such effort has involved the detection of possible birth defects even while the child is in the womb. While the use of this technique may be spreading, it has not received unanimous support. The Japan Council for the International Year of Disabled Persons, for instance, has declared its intention to follow General Assembly resolutions to discuss preventive counter-measures to congenital and acquired disabilities. But it has also expressed concern over the proposal to legalize an examination system aimed at detecting physical and mental defects of the embryo. It notes that the above issue has been strongly opposed by some groups of disabled persons because it could deny a disabled person the right to life ([39], p. 5).

Early detection of disability together with early treatment sometimes forms a category in itself, subsumed under the heading of secondary preventive care. This includes appropriate surgery for fractures in order to avoid permanent disability; drugs for tuberculosis, leprosy, epilepsy and schizophrenia. If treatment for ear and eye infections were readily available, many cases of hearing and visual disabilities could be avoided. As an example of the effectiveness of such preventive measures, the Executive Director of UNICEF has pointed out that \$1 can provide enough antibiotic ointment to treat seven children suffering from trachoma, which, if left untreated, can lead to

blindness. Moreover, the ointment does not require any professional services for application, but can be applied by members of the family [12]. The representative of UNICEF to the General Assembly also points out that each year 100,000 children lose their sight as a result of nutritional blindness caused mainly by vitamin A deficiency. This disability, too, can be prevented by the early detection of the eye lesions that first appear; dietary advice; and the provision of nutritional supplements.

One international programme especially active in the area of secondary prevention is an International Initiative against Avoidable Disablement (IMPACT). It is sponsored by the United Nations Development Programme (UNDP), UNICEF and WHO, funded by private and public voluntary contributions, and administered through "existing mechanisms". It initiated its National Plan of Action against Avoidable Disablement in the New Delhi Declaration in 1983, and is the first such plan to have been undertaken by a country under the United Nations Decade of Disabled Persons. Among its priorities are rehabilitation activities and primary prevention of poliomyelitis, endemic goitre and accident prevention. It also gives high priority to secondary preventive measures: preventing blindness due to malnutrition and cataracts. Thus far, besides its activities in India, IMPACT has been involved, together with the Ophthalmology Society of Thailand, in organizing the first eye camp to be held in Thailand. It has also planned, together with the Government of Kenya, to launch an IMPACT-Kenya programme.

Compulsory medical check-ups

Compulsory medical check-ups are increasingly important in preventing disability, both in developed and developing countries. They tend to be prescribed in three separate areas of disability prevention: prevention of accidents; prevention of the spread of disease; and protection of people from the harmful effects of their work environment.

Many countries require medical examinations to prevent accidents, for instance, before granting a driver's licence. Personnel of public transport may require even more stringent medical tests. To detect and prevent the spread of especially infectious diseases, the staffs of schools and colleges and personnel at such establishments as water-works or even restaurants may be required to undergo periodic medical examinations.

The developed countries especially seem to be increasingly aware of the need for compulsory medical check-ups of employees at the work place, particularly where hazardous materials are used. In the Netherlands, for instance, a law on health and safety at work passed in 1980 "gives wide competences both to the district head of the labour inspectorate (who may require any examination he thinks desirable) and to the Minister of Labour (who may enact regulations obliging all workers to submit themselves to periodic medical supervision)" (Gevers [42], p. 231.) Thus far, there has only been restricted use made of these powers. These obligatory medical check-ups, which have been written into collective labour contracts in the Netherlands, have been the result of the demands of the workers themselves [42].

An increasing number of countries, mostly industrialized, have passed legislation in this area. For instance, since 1953, Italy has had legislation on compulsory medical supervision of workers. In 1979, France passed a decree providing for initial and periodic check-ups for all employees. In view of the increasing attention being paid to disabilities that result from working with hazardous substances, several international organizations have

recommended action in this area. In 1966, for instance, the European Economic Community (EEC) recommended medical check-ups for employees exposed to special hazards; in 1971 and 1974, ILO recommended them with respect to benzene and occupational cancer; and in 1980, EEC issued another directive on the protection of workers from chemical, physical and biological agents at the work place. Some countries have set standards for instance, on the concentration of substances such as lead in the human body, requiring periodic monitoring of this to enforce the standards.

Such compulsory medical examinations are a preventive measure relevant to the problem of disability not only in developed countries, but also in all countries where there is mining, quarrying, and especially where chemical substances are being introduced increasingly and used in industry and agriculture.

Educational programmes

Education, training and dissemination of information play an important role in the prevention of disability. Such programmes fall into two broad categories: training of personnel and educating the general population or special sections of the population.

Regarding the training of personnel, the emphasis has been decreasing on programmes for producing highly trained professional personnel and increasing on preparing less specialized personnel to assist, especially at the local level. Thus, for instance, between 1976 and 1980, UNICEF spent approximately \$1 million on training midwives and public health personnel ([2], p. 30). Among the responses to the United Nations questionnaire, not only was the need for specialized training expressed, but also great emphasis was placed on the training of middle-range technicians, nurses, and social and health workers, "whose scarcity is partly due to low social recognition and poor salaries" ([4], p. 20). Such training facilities are needed particularly in the developing countries.

Education that reaches the general public with regard to the prevention of disability is scarcely limited to developing countries, though it is important to distinguish which areas of education are given most attention in what countries. Programmes for training in the area of traffic safety, for instance first-aid training for drivers, were commonly mentioned by the developed countries, but were also mentioned by some developing countries in response to the United Nations questionnaire on disability ([4], p. 30-41). With the rising number of accidents as well as the rapidly increasing number of drivers in developing countries, such training programmes are especially relevant.

There is also a need to train the work-force in order to avoid disabilities at work. This already plays an important role in disability prevention in developed countries; but even in these, because of rapid technological change and robotization, the need for expanding such programmes continues. ILO has been especially active in this area; it has issued publications and disseminated information through its International Occupational Safety and Health Information Centre, and through its International Occupational Safety and Health Hazard Alert System ([2], p. 12). It has also been active in the area of special training programmes related to safety in such increasingly mechanized fields as forestry and mining.

In all countries in the process of technological change, where agricultural machinery is rapidly replacing ploughs in rural areas and where the number of newly inducted workers in urban factories is rapidly increasing, there is a great need for training workers adequately to avoid the increasing number of disabilities arising from accidents at work. Finland, in commenting on the draft World Programme of Action in a communication to the Centre for Social Development and Humanitarian Affairs, drew attention to the need for concern about the training of workers in developing countries:

"Outdated technology is often used in developing countries. In many cases, old technology is transferred from industrial countries to developing countries. The old technology, inappropriate for the conditions in developing countries together with insufficient training and deficient labour protection, contributes to an increased number of accidents at work and disabilities."

Many developing countries are also conscious of a need to educate their nationals with respect to several important areas related to prevention of disability: immunization and other health services that may be available; pre-natal and child care; and nutrition. In resolution 2 adopted by the World Conference of the United Nations Decade for Women: Equality, Development and Peace, held at Copenhagen in 1980, attention was drawn to the importance of "the prevention of disability through education, particularly of parents so as to avoid disablement caused by genetic, congenital and accidental factors" [43].

Often such information can be disseminated through the primary health centres or in connection with other development or educational programmes. With regard to health services such as immunization, pre- and post-natal care and other preventive services, it is important to recognize that such education is based on the assumption that the network of primary health care is an established one and that the services are accessible to everyone.

Education regarding nutrition raises another question that goes beyond the mere dissemination of information, that is, what means are available to individuals permitting them to follow the recommendations on an appropriate, healthy diet. For instance, malnutrition is repeatedly cited as one of the most important causes of many types of disability. One particular type, early protein-energy malnutrition, has been cited by WHO as especially serious in this regard. It is said to be the most extensive and serious public health problem affecting humankind. Of the 400 million children said to be suffering from this type of malnutrition, only 0.4 per cent are estimated to live in developed countries. Stated another way, "the estimated risk of early protein-energy malnutrition is 40 times lower in developed than in developing countries". WHO suggests that along with immunization (especially against poliomyelitis), and eradication of dangerous tropical diseases, the "overcoming of early protein energy malnutrition" is one of the three most efficient interventions that can prevent or postpone disability. It co-ordinates its activities in the field of nutrition with FAO and other United Nations agencies within the framework of the Sub-Committee on Nutrition of the Administrative Committee on Co-ordination (Falkner [44]).

How effective, however, can the dissemination of information be in this area? It can make people aware of health and advisory services and of possible nutritional supplements that may be available to them from the Government or some international agency. Such information is also of value to people who are simply ignorant of the need for more protein intake and who, at the same time, have the means by which they can readjust their diet and the

diet of their family members in order to attain the appropriate nutritional balance. But to what extent nutritional deficiencies are due to a lack of information or to insufficient means remains in question. Ignorance and poverty are often cited together as causes of disability (Lennkh [4]). But while they may often accompany one another, they ought not to be confused.

Legislation and the infrastructure

One aspect of the prevention of disability pertains to provisions, legal and administrative, local and national, concerning the underlying conditions that affect the magnitude and severity of disability.

Such conditions have consequences for everyone in a community or country, often they are referred to as collective goods. They concern a supply of clean drinking water, a sewage system, the control of pollution, and a system of free, accessible medical care. When appropriately provided for by collective decision-making bodies, they eventually result in conditions that obviate much of the suffering associated with disability and much of the expenditure on other preventive measures and consequent programmes of rehabilitation. They also relieve the population of having to utilize their own private resources, assuming that they even have the necessary resources in the first place, for medical care or purifying their own water supply.

In Part One, reference was made to two frequently mentioned causes of disability: malnutrition and poverty. Both these factors are as difficult to prevent as the disability that tends to be associated with them, for what is often involved is societal change. Yet disability will always remain a threat, especially to the poor, unless some effort is made in that direction. In recognition of this the World Programme of Action lists, among the "prerequisites for achieving the purpose of the Programme ... the redistribution of resources and income" ([1], p. 2).

There are problems, however, regarding legislation, even with respect to less fundamental issues bearing on the prevention of disability. Decision-making in this field involves the political will of those in power, a consciousness and a concern, not so much about existing disability, but about disability that could be prevented. It involves a commitment to possible future monetary expenditure, and this is always politically risky, regardless of how rich a country may be regarded.

Legislating preventive measures also can involve introducing an element of compulsion, although framed in the language of obligation or duty, that some citizens may regard as an infringement of their rights. Take, for instance, laws that require immunization against particular infectious diseases, not merely at the time of a dangerous epidemic but as a general, preventive policy. In some developing countries, where vaccines have been known to be defective, or where not enough emphasis is placed on the concomitant measures necessary for maintaining basic levels of hygiene in administering injections, the resistance on the part of those who are being "forced" to be immunized may even be understandable.

Rehabilitation

Rehabilitation is currently regarded as the integration of disabled persons into as normal a way of life as possible, often with the emphasis on financial independence. It also involves obtaining for disabled persons as much independence as possible in the conduct of their daily life in several ways, depending on circumstances as follows:

- (a) Support from their families;
- (b) Jobs on the open labour market;
- (c) Jobs in a specially protected or sheltered work place;
- (d) Support from the State.

Rehabilitation within the family

In poor countries, rehabilitation, in any formal sense, has been largely limited to the narrow stratum of the financially well-off who can afford institutionalized care or specialized training; otherwise, the family that has been left, intentionally or not, with the responsibility for the care and support of disabled persons. This situation, it should be emphasized, has hardly been by choice. The findings of the Bangladesh study of physically handicapped children probably typifies the attitudes in many areas where similar circumstances prevail. Nearly half of the handicapped children in Bangladesh would have been sent for care to a special institution, if that had been possible. However, there is only one national voluntary agency in Bangladesh that has provided medical facilities for physically handicapped persons; it is located in the capital city of Dacca, and its facilities serve most of the city's population (Mia [26]). The alternative to institutionalized care, in most countries, especially developing ones, has been limited largely to cities, especially to the financially better-off people who tend to reside there. Such facilities may even be under-utilized "since they are not within reach of the majority of people in need of them and since they may not be well connected for referral and casefinding from existing human services" (Hammerman [10]).

Many Governments and international agencies, recognizing the difficulties, especially during times of economic stress, of extending this type of care have suggested de-emphasizing it, and instead emphasizing rehabilitation within the family and the community. Underlying this approach appears to be an assumption that the poor, especially the majority living in rural areas, should lower their expectations of receiving specialized care for their disabled members. According to Helander, Mendis and Nelson, this approach appears to be based largely on the diagnosis that the overall situation in developing countries is not conducive to improvement in the situation of disabled persons:

"Many factors militate against such improvement: governments are not inclined to believe that disability in the community is a problem and rehabilitation is generally viewed as a luxury; it is almost exclusively left to charitable institutions with apparently high expenditure. Most professionals are negative or even hostile to changes in a care system that has become a routine during many decades. Nor is there anything very dramatic or eye-catching about action aimed at improving the situation of the estimated ten per cent of any population who suffer from disablement. The poor, the dependent, the vulnerable disabled speak either with a humble voice or with none at all. They have no influence, no power and carry no political weight. We estimate that today 98 per cent of them are totally neglected in developing countries." ([45], p. 3.)

Based on this view, the family is resorted to, as it has always been, largely because the task of rehabilitation in any other form appears to be too demanding. Current strategies reflect the mood evoked by a study by WHO of one African country, which concluded: "Even if the entire health budget were

to be used for rehabilitation alone, it would take 200 years to achieve the desired results" ([10], p. 34).

Within the framework of community and family care, an important, practical contribution to the problem of rehabilitation has been made by the United Nations system: the development of a manual for carrying out community-based rehabilitation in developing countries. This has been a co-operative effort, part of the United Nations Decade of Disabled Persons, by several United Nations agencies and programmes, including UNICEF, UNDP, UNHCR, ILO, UNESCO, WHO and the Centre for Social Development and Humanitarian Affairs. This manual [45], on which the remainder of this section is based, is constantly being revised after successive testing in the field. It presents the idea of community-based rehabilitation in a simple and lucid manner by dividing the process of rehabilitation into several component parts. The descriptions and explanations put forward in this compendium are designed to permit rehabilitation activities to be carried out effectively by lay persons, be they members of the disabled person's family or friends. A series of "packages" have been designed to train, as well as to evaluate, activities relating to the rehabilitation process [45].

The programme of community-based rehabilitation as conceived in this manual proposes to give the ultimate responsibility for the training of disabled persons to the family. A local supervisor, usually a health worker, is given the task of initiating, supervising and guiding this training. Appropriate training packages are made available on functional training, schooling, job placement and social activities. On the basis of field testing in several countries, community-based rehabilitation has been found to be effective, feasible, appropriate and affordable. It has been estimated in several Asian countries that the cost of this programme, at full population coverage, is some \$US 0.10-0.15 per person ([40], p.4).

The basic objective of the programme is to enable disabled persons together with their family members to be so trained that the rehabilitation process can be carried out within the home. In order to achieve this aim, advice, guidelines and instructions are made available to three key persons or groups of persons: the local supervisor; community leaders; and school teachers. The supervisor is likely to be a professional health worker, recruited and trained to identify disabled persons within the community. The supervisor's tasks are to select participants for community-based rehabilitation, to instruct and supervise trainers, and to evaluate results. The second major group is composed of community leaders, who are advised on how to recognize the important role that disabled persons can play in their community, on how to facilitate the integration of those persons into the community, and how to provide them with full access to all opportunities. The third group is composed of school teachers, who will be instructed on methods of integrating disabled children into ordinary schools.

Several of the objectives and directives amount to no less than a comprehensive social policy at the community level. For instance, if a disabled member of a community cannot find a job and is thereby a burden on the family, the advice is: If such members can do a job which brings payment, the community must find jobs for them; and If some members cannot work because of their disabilities the community must give them support in the form of money, food, clothing or shelter. Beyond such welfare measures for administration at the community level, there is the following directive: Each community must have services such as health care, education, supply of transport, water, disposal of faeces and rubbish.

Commendable as these objectives are, they perhaps do not sufficiently take into account either the attitudes of the local community or the local power structure. For instance, how receptive can local leaders be expected to be to such advice when, as the Bangladesh study suggests, community attitudes can be described as virtually indifferent to the problem of the handicapped. The findings of this survey may typify not only community attitudes in Bangladesh, but also in most developing countries:

"Organized efforts for the care, treatment, and rehabilitation of the handicapped were considered to be the government's responsibility. Local agencies might cooperate with the government initiative, but according to the observations of the leaders, the general community does not share a feeling of collective responsibility to find suitable measures for improving the condition of the handicapped" [45].

Regarding the type of power structure of a given community, the manual identifies a wide variety of possible community leaders. They can be village headmen, tribal chiefs, council members, religious leaders, teachers, traditional healers, government officers, members of village committees such as that for health, education and agriculture and members of groups such as that of women's, civic, cultural and sports groups. A mixture of ascribed and achieved leadership positions are noted, as well as traditional healers and government officers. This undifferentiated, heterogeneous listing of leadership positions reflects a recognition of the diversity of bases of power, but it also reflects a hesitancy to come to terms with the consequences for social policy of different types of leadership.

The concept of "community" suggests common interests and homogeneity, while the reality of village organization, especially in developing countries, often reflects rigid, authoritarian power structures in which patron-client relationships are frequently encountered, and where sharp divisions often mark the village population in terms of access to resources and decision-making. The prerogatives of power in rural settlements are frequently reserved for a few, and the participation of the majority is contingent upon the pleasure of those few. Under such circumstances, it is debatable whether the term "community-based" is correct.

Most rural settlements in developing countries lack basic amenities and resources. It is not always the practice that the majority of a village population is taken into consideration when decisions, such as providing collective goods or rehabilitating disabled persons, are made. Nor is it self-evident that government officials are equipped to carry through measures for social development. Many surveys and other research studies on all regions of the third world agree that deep and pervasive social, economic and political divisions mark the rural communities in which the majority often live a marginalized existence. Under such conditions, the effectiveness of family care as well as the notion of "community" may need re-thinking, both in general and in regard to the problems associated with the rehabilitation of disabled persons.

Vocational rehabilitation and the labour market

Apart from prescriptions to communities to find jobs for disabled persons there have been other, perhaps more comprehensive, efforts to provide work for disabled persons on the open labour market. These, however, have been mostly limited to developed countries.

Measures on behalf of disabled persons depend upon their condition, but with two distinct, though not always separate, emphases. The measures may, on the one hand, be directed at alleviating the inevitable disadvantages and often considerable suffering that a person is subjected to when physically or mentally disabled. On the other hand, these measures may be initiated from the standpoint of dealing with society's problems; for instance, disabled persons should be made fit to work so that they can be financially independent, productive, capable of paying taxes, and in a position to reduce their demand for services (UNDP [46]).

These extremes are rarely so starkly presented, but they exist. One approach stresses the economic value of work, and aims to place the handicapped worker in the labour market on an equal footing with others; the screening process involved would exclude many severely physically or mentally handicapped persons and concentrate on those more capable of competing on the open labour market. The other approach emphasizes the intrinsic or social value of labour; it caters more to the individual needs of disabled persons to obtain the maximum feasible equilibrium between them and the social environment. The ultimate goal may be a therapeutic one: to train and assist the disabled person to participate in a normal work environment. Both these approaches are committed to the importance of establishing disabled persons in a work setting, yet their emphases have a profound effect upon procedures and their consequences. These approaches are discussed in Social Europe [47].

In most developing countries, the problems of unemployment and under-employment are of such a magnitude that they call for very different strategies with respect to facilitating jobs for disabled persons. As one ILO official has noted:

"In most developing countries, with their high levels of unemployment and underemployment, to contemplate placing the disabled in the open labour market is often just a pipe dream - the jobs simply do not exist." [8]

Even in industrialized countries, since the recession started in the mid-1970s, unemployment has become an important general issue and has forced a reconsideration of the nature of work. Also, pressures have resulted from the changes in technology and world-wide industrialization. On the one hand, this has meant that automation and robotization have displaced a large proportion of manual jobs: especially the unskilled section of the labour force has faced problems of redundancy and early retirement. On the other hand, new jobs have been created in such sectors as administration, management and planning that call for higher levels of skill, although even in these sectors there has been redundancy.

In the industrialized countries, the very nature and value of work as well as the definitions of marketable skills are being questioned. In market economies, competition between firms inside and outside a country have become intense, making it "necessary to keep up with the high productivity which puts stress on anybody belonging to the weaker parts of the labour force" (Westergaard [48], pp. 127-128). Under these circumstances, the disadvantaged and weaker sections of the labour force, including disabled persons are the first casualties of the shrinking and changing labour market.

In countries seriously committed to employing disabled persons, the public sector has tended to become "the last resort of the handicapped people" [48]. In Denmark, for instance, the public sector has had to absorb those whom the private sector cannot use. Legislation now makes it compulsory for counties and municipalities to recruit for normal jobs from among those whom the labour

market cannot accommodate, among the categories included are persons with disabilities.

Another way of dealing with problems of unemployment among disabled persons is the quota system. Policies on this measure differ widely. The Scandinavian countries display a reluctance to support the quota system for it would make it compulsory for enterprises and firms to provide a certain proportion of their jobs to persons with disabilities, as a category. In the European Economic Community, six out of nine member States have quota systems, ranging from 2 to 6 per cent. However, the general tendency has been that for the most part the Community quota legislation is avoided by employers and not enforced by Governments.

There is a notable exception to this generalization: the Federal Republic of Germany has one of the highest quotas, 6 per cent, for both private and public concerns. If a firm does not employ the specified number of disabled persons, a fine at the rate of DM 100 per month is imposed, and the fines are paid into a special fund. The special fund then provides resources for vocational training and for the building and equipping of workshops for disabled persons.

Japan practices a quota system, which provides for ratios of disabled persons to the total number of employees in the private and public sectors. Until recently, results of this policy showed that governmental bodies had fulfilled their quotas, while private agencies tended to lag behind the legal employment rate ([49], p. 153). Funds are collected in Japan from those employers who fail to fulfil their quotas; these funds are then channelled to support those employers who are active in the employment of disabled persons.

One type of measure that has proven successful in assisting disabled persons to obtain and retain employment has been the Adjustment Group, formed at places of employment. Such groups originated in the early 1970s in Sweden, functioning at places that employed at least 50 persons. The composition of the Adjustment Group ranges from three to seven persons; they include principally the representatives of employers, trade unions and the Employment Service. Where necessary, staff medical officers, nurses, safety experts and others may also be associated with an Adjustment Group. Basically, such groups strive to develop more positive public attitudes towards disabled persons, to facilitate their being appropriately employed, and to assist in making it easier for them to work and to retain employment. Starting from about 200 adjustment groups in 1972, their number in Sweden has increased to more than 5,000 in all sectors of the economy. There are approximately 3,700 in the private sector, 500 in the local government sector, and 800 in government units at higher levels (Sjoberg [50], p. 175).

Another feature of the Swedish approach is an arrangement for combining vocation evaluation with work training. Thirty-five centres around the country provide facilities whereby the evaluations of teams of specialists make it possible to draw up individual programmes for each trainee. The trainees are then assisted to evaluate themselves, and to decide on future training and employment prospects. These vocational evaluation and work training centres concentrate largely on the socially maladjusted, those who are disabled because of alcohol or drug addiction. For those who are severely disabled by blindness, deafness, motor handicaps or mental retardation, adjustment courses are provided at special centres that have provisions for approximately 1,000 trainees. Specialist instructors, working with social workers, attempt to build confidence in the trainees and to help disabled persons to learn to carry out tasks associated with daily life. Liaison with

local employers permits trials for jobs for the trainees as well as providing opportunities for on-the-job training ([51], pp. 29-35).

Most of the measures thus far alluded to have aimed at helping disabled persons to gain and retain jobs on the open labour market. As opportunities for employment on that market become more constricted, the situation of new or even continued employment for disadvantaged groups, such as persons with disabilities, worsen disproportionately. Disabled persons tend to be the first to be laid off in times of recession. Moreover, as an example from Sweden indicates, an estimated 10-20 per cent of the employees of Swedish enterprises currently suffer from functional impairment; it has been asserted that were these employees to be laid off, they would find it virtually impossible to obtain alternative employment on the open labour market (Eliasson [52]).

Under such circumstances, it has been suggested that rather than move towards piece-meal solutions to the problems faced by disabled persons, it would be better to face squarely the broader issues involved. In the words of the head of the Danish Employment Service: "If you want to have a handicapped-supporting policy the best thing to do is to create full employment. This is much more efficient and strong than any other measure you could dream of" (Westergaard [48], pp. 133-134). To structure the issues in this way serves to highlight the intimate relationship between economic and social policy and the fate of disabled persons. The head of the Danish Employment Service has drawn attention to the fact that:

"In Denmark we have taken out of all our laws the word 'rehabilitation' because it is sometimes meaningless or misleading to use the word. If you use the phrase rehabilitation you certainly concentrate on this area. If you instead use other phrases, like adaption to swings in the economy, adjustment or what have you, you will at the same time focus on both areas which might be an advantage if you want to give the handicapped a proper chance on the labour market." ([48], p. 133.)

Ultimately, the question of work and the kind of work for disabled persons depends upon the primacy accorded to the economic and social goals. In most countries, the goals of social policy are largely determined by economic policy, and thus impose constraints upon the degree of assistance and solidarity that can be expressed for the disadvantaged sections of society.

Job rehabilitation and protected work

Short of concentrating attention on solving the larger, more general problem of unemployment, or even on relying primarily on measures facilitating jobs for disabled persons on the labour market, another related strategy has been pursued. This strategy aims at creating a special work situation for disabled persons wherein the job takes precedence over the profitability of the enterprise.

One of the more promising of such developments of recent years has been the establishment of sheltered workshops, or the provision for sheltered employment "enclaves", which Cooper defines as "a group of severely disabled people working together under special supervision in an otherwise ordinary and undifferentiated working environment" ([8], p. 195). Usually such projects are established because severely disabled persons cannot find employment on the regular labour market, but often sheltered employment is considered a transitional stage that can facilitate eventual employment under more normal conditions.

Sheltered work may take many forms: some may be provided in private or charitable undertakings; others have taken the form of co-operatives. Still others have been sponsored by Governments, with or without international assistance. The overall economic situation dictates, to some extent, the degree to which financial resources can be channelled for such special assistance. However, this strategy relieves disabled persons who are in search of work from complete dependence upon the vagaries of either micro- or macro-level economic conditions.

Many such projects have been carried out in developing countries where it is an especially useful strategy as even in good economic times a large proportion of the populations is unemployed, under-employed or completely outside the labour market. The analysis of the United Nations questionnaire, which surveyed the world-wide situation of the disabled, confirmed that "job resettlement remains a major problem in a context of chronic unemployment", and notes that the most common procedure in these countries is also the most successful one, namely, the creation of productive workshops ([4], p. 18).

One outstanding example of this type of effort is the ILO-assisted United Abilities Company in Ethiopia. It started with a labour force of 27 persons, within a decade it had become a self-sustaining employer of approximately 400 disabled persons. Initially producing only umbrellas, United Abilities expanded into the production of dry-cell batteries, which unit alone employs 100 severely disabled persons. With varying degrees of success, such experiments have been carried out in several developing countries, among which are Burma, Malawi, United Republic of Tanzania and Zambia. In India, a programme of sheltered workshops has been provided for under that country's Sixth Five-Year Plan. The assumption is that certain individuals found it more convenient and feel psychologically secure in a sheltered environment.

Although sheltered workshops are to be found in a large number of countries, the pattern varies considerably. In the United States, for instance, the pattern of growth of sheltered workshops shows that the number of mentally retarded persons in these enterprises has been increasing. It is estimated that approximately two thirds of those who work in these sheltered institutions are in "work activity" centres where productivity is either very low or considered inconsequential (Berkowitz [13]). While some of these sheltered workshops are supported by United States governmental agencies, most are run by private, non-profit organizations. One such organization, the Human Resources Centre, was founded in 1952, and has endeavoured to provide employment opportunities in fields as diverse as banking, electronics, and data processing, at its own demonstration work centre (Acton [53]).

Australia's Bedford Industries provides an example of a small sheltered workshop that has grown into a diversified, industrial complex. It employs over 700 persons at any one time, most of them disabled. Bedford Industries provides opportunities in more than 65 different lines of work, ranging from textile processing to engineering and bookbinding. Another example from Australia is the Sydney-based Centre Industries, which employs approximately half its work-force from among disabled persons to produce electronic components for the telecommunications industry. A special feature of Centre Industries is the application of engineering techniques in order to overcome the functional impairments of disabled workers, thus facilitating their direct competition with non-disabled workers [53].

There are approximately 50,000 persons placed in some form of sheltered work in Sweden (Rehnberg [54], p. 139). In Uppsala, for instance, one such enterprise employs over 160 disabled workers. The majority are mentally

retarded, mentally ill or socially maladjusted persons. They are employed in workshops that carry out subcontracts for printing, cardboard-making and packaging. Nearly half the cost of operating the workshop is recovered by these activities ([54], p. 29-35).

The Netherlands possesses the most extensive sheltered workshop programme in Europe. Data from the German Democratic Republic indicate a significant growth in the number of severely disabled persons who work in sheltered situations: in 1972, 3,774 sheltered work-places existed, compared to 30,500 in 1981. In Beppu, Japan, a sheltered workshop was started in 1965 for 15 persons in wheelchairs for making handicrafts from bamboo. Currently, the same Japan Sun Industries employs 320 disabled workers, along with a smaller number of non-disabled workers (Acton [53]). The programme of Remploi Limited in the United Kingdom dates back as far as 1945. Currently it provides training and employment to severely disabled persons in its 87 factories that produce and market a broad range of services and goods. It also works in close co-operation with the British Government's Department of Employment [53].

The capacity of sheltered workshops to function as temporary stages in the re-integration of workers on the open labour market varies considerably. It depends, among other factors, on general economic conditions at any given time; on the specific efforts made in this direction; and on the severity and types of impairment that predominate among those in the sheltered programmes. Some programmes, for instance, are intended to give jobs to as many disabled persons as possible, regardless of the severity of the disability. Others aim to employ only, or mainly, the most severely disabled persons, for example, those who can probably never be expected, on medical grounds, to be successfully integrated into a normal work situation.

A few examples may suffice in this regard. In Sweden, for instance, in 1978, 1,400 persons, for example about 2 per cent of all job applicants registered as occupationally handicapped, were placed in the open labour market after a period of relief work, semi-sheltered work, rehabilitation tests and work training, and a period of work in workshops meant for general or archive work (Rehnberg [54], p. 138). Data from France indicate that sheltered workshops are more likely to become end rather than way stations: barely 2 to 3 per cent of workers in French industrial rehabilitation centres or sheltered workshops ever leave them for more normal employment ([47], pp. 74-75). Data from the Federal Republic of Germany indicates that an average of 5 per cent of those in sheltered employment are eventually placed in regular jobs (Greenleigh [55], p. 127).

It is not possible to generalize about sheltered workshops because a great deal depends on the regulations that govern the entrance into them, that is to say, the kinds of disability that are taken into consideration. Perhaps even more than this is the attitude adopted in the mix of economics and welfare that informs the creation and sustaining of these enterprises. It is possible to imagine sheltered workshops that are in effect suppliers of cheap labour and thus constitute sources of exploitation. There are also examples, however, that attend to the development of needs of the human person, caring for both the work as well as the non-work aspects. Despite the emphasis on integrating the disabled into normal work situations, sheltered work may at times, and for some disabled persons, be not only worthwhile but also necessary.

Co-operatives also provide work that may be geared to the needs of disabled persons. The Polish Invalids' Co-operative Movement provides an

important example of such, in terms not only of the strength of the numbers involved, but also of the approach adopted in order to provide vocational rehabilitation and integration into social life (Pleszko [56], pp. 79-90).

The Polish movement arose as an initiative of war-disabled veterans in the aftermath of the Second World War. The Invalids' Co-operative Union (ZSI) is an association of 436 co-operatives that employ a total number of 288,000 persons, including 177,000 disabled persons. These co-operatives thus account for some 56 per cent of the total number of disabled who are employed in Poland. As a rule, disabled persons who work in the Polish co-operatives are severely disabled, with only limited physical and mental capacities, and they are not able to compete in the labour market. In recent years, those persons with mental illness and young mentally retarded persons have been referred to the invalids' co-operatives in greater numbers.

An interesting feature of these co-operatives is the employment of able-bodied workers alongside disabled persons. The average percentage of disabled employees varies from 70 to 80 per cent. These workers engage in a wide range of economic activities that include industrial and non-industrial services as well as trade; the annual total value of turn-over represents approximately 1.2 per cent of the total value of industrial production in Poland. In the industrial sector alone, the co-operatives manufacture over 150 products ranging from textiles, footwear and plastics to electronics. The State grants monopoly or main production rights to the invalids' co-operatives for nearly 100 different products, a concession facilitating planning on the part of the co-operatives.

In addition to providing working conditions of a sheltered nature, the co-operatives simultaneously assume responsibility for providing other services, such as medical and para-medical treatment and therapy, as well as social benefits. They maintain clinics that provide comprehensive services including basic rehabilitation, which includes vocational guidance and initial training; constant medical care; physical betterment; social benefits (also applicable in part to the disabled person's family); miscellaneous rehabilitation services and benefits; and employment appropriate to the person's capacities and abilities.

In most European countries vocational rehabilitation is generally the responsibility of Ministries or Departments of Employment or Labour. In Poland, the responsibility for vocational rehabilitation rests primarily with the Ministry of Medical Care and Rehabilitation, "an administrative arrangement which seems to have facilitated the close coordination of medical rehabilitation with vocational and social relations activities in special centres, large industrial undertakings and invalids' co-operatives" ([56], p. 21).

Agricultural co-operatives appear to be another useful form for employing disabled persons. One such co-operative, the Aquilina Centre in the Romagna in Italy, reserves specific tasks for disabled workers [47].

Finally, there are two other approaches to the problem of providing work for disabled persons, both applicable to facilitating work for disabled persons in open as well as sheltered labour markets. First, the so-called ergonomic approach to the creation of jobs for disabled persons is referred to as rehabilitation engineering, vocational adjustment or adaptation of jobs for the disabled. It involves an analysis of movements, postures, efforts and stress as well as recommendations for the modification of work to suit the human organism. In searching for ways of adapting the work to suit the

abilities of the disabled person, this approach reflects a type of strategy that emphasizes greater humanization of work.

Secondly, ILO has developed a concept of vocational training known as modules of employable skills. This concept ensures maximum flexibility since it facilitates combinations of skills and tasks into sets of "useful functions". As ILO describes it:

"The key to this system and its unique feature is to create completely self-contained training packages (or modular units) around each useful function and limited to the essential skills, knowledge and aptitudes required to perform that useful function ... it allows for the training and reintegration of those severely disabled who can only undertake a limited range of activities." [8]

In evaluating any scheme of vocational training, the degree to which it is primarily oriented towards providing labour power to meet the needs of the market and to meeting the needs of disabled persons must be considered. These are not always compatible goals.

Social welfare

If disabled persons cannot find a job on the open market or in a sheltered workplace, either because of economic conditions or the nature of their disability, provision for their care and support is unavoidable. Disabled persons may have to rely on their families, but as most such persons come from poor families, the burden is often too great for the family to bear. The depressing circumstances of such families call for solidarity on the part of the larger community.

In most countries, however, there is no such solidarity nor any provision for a "social net". Not merely are the disabled neglected but the poor in general. And as the Report on the World Social Situation 1985, notes, most developing countries do not yet have any systems of social security for the unemployed ([19], p. 142).

There are a few countries that have made some provisions for the social security of their citizenry, or a section of their citizenry. Sometimes particular categories of persons are singled out, on the basis not of economic need or severity of disability, but of cause of disability: for example, war veterans or those injured on the job are either exclusively or more generously awarded disability benefits.

The Japanese Council for the International Year of Disabled Persons has, in its report, drawn attention to the fact that disability pensions in Japan are lower than other pensions. They recommend that the level of income security there "should be raised up to the point of the average living standard by the final year of the ten-year Programme of Action of 1991" [27]. The Netherlands provides an example of a country where the level of disability pensions has been raised to that of other pensions:

"In the Netherlands, the same pension is awarded whatever the causes of disability ... Parity was achieved in the Netherlands by improving the benefits given to the ordinary disabled person, without reducing those given to the industrially disabled."

In a number of countries a social security system exists, but it is generally restrictive in the sense that it requires case-by-case decisions, and demands varying degrees of proof before providing assistance. The

disadvantaged being among the least articulate, and also among the least informed, they often do not take the initiatives required of them even to apply for the benefits that might be their legal due.

There are only a few countries where neither the causes nor the conditions of disability are questioned, and social assistance is considered to be an automatic right of the citizen. This type of system guarantees a minimum income to disabled persons, regardless of whether or not they can ever qualify for work. It automatically guarantees an income to those who are forced to retire prematurely, and to those who can have no other source of independent income: for instance, the more elderly among disabled persons or those who are too severely disabled to hold any type of job. But it also can be seen as functioning intimately in relationship to the general state of the labour market and the economy. This point can be perhaps no better illustrated than with data from Sweden. There, the level of disability pensions varies widely between municipalities: from over 15 per cent of males between 25 and 64 in some communities, to only 1.3 per cent in others. It is apparently agreed that "the main factor in the difference is the level of unemployment in the municipality" (Bernhardsson [57], p. 147).

Recessionary tendencies and the accompanying rise in structural unemployment in several industrialized countries have created a crisis not only in the economy, but also of conscience. For it is precisely when economic conditions are deteriorating that those who are more disadvantaged, such as disabled persons, must receive guaranteed protection from a fluctuating market. Yet it is not unusual to observe that adverse economic conditions stimulate tendencies on the part of the State to economize on welfare activities, and even to advocate private solutions to what have hitherto been considered public problems and responsibilities. The expression compassion-fatigue illustrates what may be the transitory nature of much of what is often perceived as the institutionalized welfare system.

Education and institutionalized care

Until recently rehabilitation has been viewed as "a pattern of therapies and services provided to disabled persons in an institutional setting, often under medical authority", but there is now an increasing tendency to emphasize the integration of services for disabled persons in the more general public facilities by involving communities and families to overcome the disabling effects of impairment within "a normal social environment". Such community-oriented activity, supported by qualified medical, social and pedagogical services, has been recommended by the World Programme of Action.

The World Programme of Action points towards the integration of disabled persons within the community, and wherever feasible, this integration should be within the normal, existing local institutional framework. While providing a sense of the direction towards which future policy should move, its realization is fraught with difficulties when seen in the context of current realities.

One instance is the suggestion that education be provided to mentally and physically disabled children in ordinary schools. UNICEF has estimated that 90 per cent of children with disabilities could be integrated into normal schools, however, with certain prerequisites. A report from Turkey by the National Co-ordination Committee for the Disabled points out that "unfortunately, due to inadequate transportation facilities, existing architectural barriers and socio-economic conditions of our nation, we have not been able to provide equal educational opportunities for disabled students in normal schools". At the same time the report notes:

"It is a common belief that when we speak of schools for disabled persons we have always thought of schools for persons with sensorial (hearing or visually disabled) disabilities. We have not yet established adequate schools for mentally and physically handicapped persons."

Japan has drawn attention to other problems. Responding to the draft World Programme of Action, it described the situation in Japan as one where 0.4 per cent of the total number of children at the compulsory education level were so heavily impaired that their condition necessitated special attention. In the view of the Government of Japan, special schools were the more appropriate institutions for such children. From this analysis came the prescription that there be an increase in the number of special schools in Japan, which indeed has been the case.

The differences across local communities, countries and regions are so very great, in terms of conditions and resources, that no single formulation can adequately provide guidelines. Furthermore, it needs to be kept in mind that there probably exists everywhere a core disabled group who are either elderly or so severely disabled that they would always be dependent, either wholly or in part, on some form of specialized services, provided such services were available to them. These persons need to be identified, and ways somehow provided whereby they can be brought into contact with the facilities they require for education, assistance and care. Taking into account these conditions, then, one can regard the suggestion for the involvement of the community and the family, and the provision of care and related services through normal institutions as a normative principle that can provide a useful perspective on how future policy ideally should be oriented.

Participation

Full participation in the basic units of society, family, social groups and community is endorsed as a right in the Universal Declaration of Human Rights. People with disabilities are entitled to these opportunities as much as others. But, in reality, "disabled persons are often denied the opportunities of full participation in the activities of the socio-cultural system of which they are a part" ([1], p. 20).

Physical, social, economic and psychological barriers face disabled persons with severe consequences for the exercise of theoretical rights to participate in social and political affairs. Some of these hindrances can be very simply identified. For instance:

"Many disabled persons are excluded from active participation in society because of doorways that are too narrow for wheelchairs; steps that cannot be mounted leading to buildings, buses, trains and aircraft; telephones and light switches that cannot be reached; sanitary facilities that cannot be used. Similarly they can be excluded by other types of barriers, for example oral communication which ignores the needs of the hearing impaired and written information which ignores the needs of the visually impaired." ([1], p. 21.)

Such barriers to participation are the common fate of persons suffering from disabilities. They are responsible for the segregation and isolation of disabled persons from the rest of society. And they exist "despite the fact that most of them could be avoided at no great cost by careful planning" [1]. Legislation is required, for instance, to set standards for building both private and public facilities that take account of the needs of the disabled. One suggestion has been put forward that public housing projects should

provide for a fixed proportion of accommodation for the disabled. Such accommodation could be built according to a "half-completed" method, so that appropriate equipment could be added, according to the varied needs of those with different types of disabilities ([39], p. 15).

One of the countries that perhaps has gone furthest with the type of legislation humanizing the environment for disabled persons and sensitively facilitating their integration into the larger society has been Sweden. A closer scrutiny of their conditions makes it possible to better understand the possibilities and the limitations inherent in the situation of those suffering from disabilities, and how this may have bearing on their becoming more integrated into normal life. Such insight into the daily life conditions of people with disabilities is provided by a comprehensive survey conducted in Sweden, based on extensive interviews with persons between the ages of 16 and 84 [28]. In this far-ranging probe, observations from disabled persons themselves were elicited regarding not merely their health and the medical and associated care available to them, but their living conditions: housing, employment, economic conditions, leisure, social relations, and the degree to which they participated in civic life. The survey is of particular value, since it considers the condition of disabled persons together with that of the rest of the population.

Nearly all Swedish disabled persons suffer from some long-term illness. Two thirds of those who suffer from mobility disability, reduced eyesight or reduced working capacity report serious other complaints of varying duration. This rate of complaint is more than 50 percentage points higher when contrasted with the same age group in the population as a whole. In practically all categories of diseases, the rate of incidence is higher among those who are disabled, even for diseases that apparently have no connection with the disabilities of the respondent. For instance, the number of persons with mobility disability who suffer from infectious or respiratory diseases is double that of the corresponding age group in the Swedish population. It is quite possible that disabilities contribute to a general deterioration of health, and thus contribute to vulnerability to other illnesses.

Mental well-being is very difficult to measure through survey instruments. Even then, it is perhaps noteworthy that whereas about 15 per cent of the general population report feelings of tiredness, anxiety, fear or nervousness, disabled persons report such feelings twice or even three times as frequently.

Continued dependency upon assistance and care for performing the activities of daily life is also clearly brought out by the survey's findings. Nearly 60 per cent of persons with a mobility disability or reduced eyesight are unable to clean their homes; 48 per cent cannot shop for their food; 40 per cent report that they are unable to cook; and 13 per cent cannot dress or undress themselves.

Such difficulties of carrying on with the routines of daily existence point to the dependency, and the type of care that is absolutely necessary for the dignified existence of those with disabilities, even under the best of societal circumstances. In Sweden, 57 per cent of persons with mobility disability or reduced eyesight receive regular care or assistance at least once a week. Yet, despite the availability of an extensive network of free care and assistance, the survey indicates that 6 per cent of those with mobility disability or reduced eyesight feel that they do not get the care or assistance that they themselves consider essential; 8 per cent report that while they get some help, they consider this inadequate.

Regarding housing conditions, 56 per cent of the Swedish population live in one-family houses; disabled persons are more likely to be found living in multi-family housing, or to be institutionalized and living in homes for the aged, in hospitals and in nursing homes. More than 80 per cent of persons with mobility disabilities and/or reduced eyesight when questioned reported that their dwellings were not specially equipped or adjusted for disabled persons. The living conditions of those whose working capacity is considered severely reduced due to long-term illness has been found to be below average in many respects [27].

In the context of the centrality of work and employment for those who live in industrialized societies, 78 per cent of the general Swedish population aged between 16 and 64 is gainfully employed; but only 38 per cent of those with mobility disabilities. The majority of persons of working age who are mobility disabled subsist on invalid pensions. Disabled persons are more often without jobs, their financial resources are meagre, their purchasing power more limited and their cash reserves also more limited than those of the general population. In the economic realm, then, people with disabilities stand at a considerable disadvantage, as they do everywhere else in the world.

The cumulative impact of disability is reflected in other aspects of their living conditions. The rate of those among disabled persons who live by themselves is higher than the rest of the population. Disabled persons have fewer social contacts, and again, compared with the general population, they are prone to more social isolation [27].

It is when it comes to the realm of participation in group activities that the Swedish survey testifies to the successes achieved as well as those to be achieved in integrating disabled persons into the larger society. The data show that disabled persons participate in political activities at a rate somewhat lower than the general population, but it is still impressive considering the disadvantages and cumulative difficulties that burden their lives. People with disabilities vote in general elections at a lower rate than the general population; and they report a sense of political competence and efficacy that is also lower. While 10 per cent of the general population reported having attended a meeting of a political party during a one-year period, only 4 per cent of disabled persons said they had done so. On the other hand, Swedish disabled persons who hold a job participate as members of trade unions to the same extent as other employees; and about one third of disabled persons with disabilities are members of pensioners' associations, the same proportion as among the rest of their age group in Sweden.

This profile of the daily life conditions of Swedish disabled persons illustrates what are quite likely typical situations to be encountered in those few industrialized States where resources for disabled persons are offered in abundance, and where political commitment is deep. It illustrates what can be done for and by disabled persons, but also indicates some of the problems that, probably even in the best of available conditions, tend to remain.

Another dimension of the problem of integrating disabled persons into the life of the community has to do with the attitudes prevailing in the community with respect to people with disabilities, that is, how they are perceived, and how sensitively their problems are understood.

The relevance of societal attitudes has been commented upon by, among others, the report of the regional meeting of the Economic and Social Commission for Asia and the Pacific (ESCAP) in September 1980 [58]. This meeting drew attention to the fact that legislation alone could not "integrate

disabled persons into the mainstream of society as that was largely dependent on the attitude of society itself in accepting disabled persons. The Meeting gave considerable attention to the question of promotion of positive attitudes towards disabled persons" [58].

One of the benefits of the International Year of Disabled Persons has been the decided expansion in the awareness of problems connected with disabilities. It seems to have promoted a degree of reflection on the situation and status of disabled members of society. The absence of information on and about disabled persons contributed in part to neglect. In the absence of interest on the larger part of society, the burden of ensuring the welfare of those suffering from disabilities often fell heavily on the family of disabled persons alone. It was noted by the representative of Libya at the thirty-seventh session of the General Assembly that "society and the community looked after the disabled in a very limited way" [12]. The comment of the representative of Japan at the thirty-sixth session of the General Assembly illustrates this condition as it prevailed in Japan before the Second World War: "The attitude of society towards the disabled was one more of pity and charity than of respect" [12]. The assessment that "approximately 99 per cent of Jamaicans with disabilities live without the help they need to enjoy a full life", [12] also probably accurately reflects the consequences, at least partially, of the attitudes that have tended to prevail in most societies with respect to disabled persons.

Even today, attitudes towards disabled persons appear to be formed more by impressions than facts. However, the stimulus provided by the International Year of Disabled Persons afforded the opportunity for some countries to survey the opinions of their populations. Illustrative of such scanning are the surveys from the Federal Republic of Germany and from Japan.

At the beginning of the International Year of Disabled Persons, the national survey of the Federal Republic of Germany discovered that typical of the situation among the general population were little contact with disabled persons; and ignorance and lack of interest, partly caused by emotional aloofness. The term "emotional aloofness" was interpreted as "an avoidance of contact and a reluctance to accept information about the handicaps and difficulties of disabled persons" [41].

Tapping the informational and awareness levels of the population, the survey found that at the beginning of the Year, 31 per cent had no idea of how many disabled persons lived in the Federal Republic of Germany; by the end of the Year, that figure had fallen to 11 per cent. Similarly, at the beginning of the Year, 68 per cent of the population stated that they had no personal contact with disabled persons; at the end of the Year that figure had decreased to 60 per cent. These figures demonstrate not only levels of information and attitudes, but also the possibility of altering those levels and attitudes.

An interesting and valuable finding of this national survey was that a wide measure of unanimity existed on the need to continue with concrete measures to improve the living conditions of the disabled. The survey's findings are that the most urgent requirements lie in the following sectors (listed in order of importance, as revealed by the survey):

- (a) Job placement;
- (b) Guidance facilities at the local level;
- (c) Accommodation and leisure-time activities;
- (d) Expansion and improvement of early diagnosis and prevention;
- (e) Joint institutions for disabled and non-disabled persons;

- (f) Training, education, retraining;
- (g) Accessibility of public institutions;
- (h) Assistance for the families of disabled persons.

A national survey was conducted by NHK (Japan Broadcasting Corporation), of men and women over 20 years of age, in March 1981, during the International Year of Disabled Persons. Results of the survey revealed that over 75 per cent of the population was aware of the Year. Following this impressive degree of awareness, the national survey attempted to elicit specific responses to the situation of disabled persons in Japan. When asked how the country was meeting the goal of eradication of all kinds of discrimination against disabled persons 52 per cent described the existing situation as "poor" and 7.1 per cent, "very poor". However, about one third felt the situation was good or very good.

The respondents were also asked about the Year's aim of helping disabled people to lead a normal social life while receiving treatment at home rather than being institutionalized. Almost 18 per cent found the actual situation and policy as positive with respect to this goal, whereas 70 per cent had a negative assessment. Similarly, the respondents, describing the Japanese situation with respect to the goal of the Year of improving public facilities so that disabled persons could take part in education, labour, sports etc., stated that the situation was less than desirable (68 per cent). Respondents were also asked to assess the attitudes of the central and local government to welfare measures for disabled people, and nearly two thirds reacted favourably.

At another level, the survey showed that over two thirds of the population said that they had an interest in the problems associated with disability. When asked how and why they had developed this interest in the problem of disability, 38.2 per cent attributed it to television and press coverage, while over 17 per cent said that they had become interested because of the stimulation of having disabled persons around them. About 5 per cent said that this interest arose because of their own participation in volunteer activities on behalf of disabled persons.

Thus far, this discussion of participation has related mostly to the disabled person as an individual, touching upon how environmental conditions, as well as the attitudes of the public may affect integration of the disabled person into the normal life of the community. There is, however, another dimension of the participation problem: the question of group participation by disabled persons in order to affect solutions to problems that particularly relate to their own condition. One of the major non-governmental organizations of disabled persons, the Disabled Peoples' International, which was established at the end of 1981, has expressed the importance of such organization in the following manner: "If the problems are environmental and attitudinal, the solutions must be collective self-help through disabled persons' own organizations."

This is not usually easy. It assumes that some means are available among disabled persons to organize, yet disabled persons are usually among the poorest in every society. It also assumes that other, cross-cutting differences, such as political or ideological, can be overcome in order that people with disabilities can unite to forward their own demands.

Over the past two decades several movements have developed within some of the industrialized countries that aim to introduce a large degree of self-management in the affairs of disabled persons. In particular, these movements

have been fairly active in the United States of America and in Sweden. As of 1980, there were about 25 associations of disabled persons at the national level in Sweden; and in municipalities and counties over 1,200 associations of disabled persons with about 300,000 members. The Swedish movement "Support for the Handicapped in Sweden" consists "to a high degree of organizations of and not for the handicapped. They are dominated to a large extent by the handicapped themselves and in the last few years have come to function as social policy pressure groups in relation to society" [59]. The Fokus Foundation in Sweden, among others, has been concerned with the mobility needs of severely disabled persons as well as with promoting the continuous education of disabled persons on an integrated basis, utilizing community adult education facilities where these are available (UN [60], p. 24).

In the United States, the American Coalition of Citizens with Disabilities has been responsible for a network of independent-living centres that concern themselves with mobility problems, consumer education, employment, and legal aid for severely disabled persons. The origin of the movement can be traced to the action initiated by disabled students at the University of California, at Berkely, in 1970, when the Center for Independent Living (CIL) was created as a self-help organization by disabled students in the conviction that they themselves were the best ones able to decide what was appropriate for them. The establishment of the Berkeley Center (by now one of the largest and best known in the United States), was an expression of dissatisfaction with the traditional, institutional facilities that were available to disabled persons.

In a survey of 12 Independent Living Centers conducted by the Department of Rehabilitation, California, it was found that the services offered varied considerably from one Center to another [61]. Typical services were found to include attendant referral, peer counselling, housing assistance, and referral. Among other services offered by the CILs were benefits counselling and advocacy, and message relay, vocational counselling and referral to training, alcohol and drug-abuse counselling, equipment repair, attendant training, and civil rights advocacy.

A review of the literature related to independent living yields several definitions of the movement. From this variety of interpretations, the California survey presents "four provisional definitions by individuals central to the IL movement" ([61], p. 1). The first definition of independent living is that it "means understanding the various components of society that affect one's life so that s/he can use them to meet his/her needs". The second is that independent living is considered as dual-faceted: "assuming responsibility for directing one's own life, and participating in the day-to-day life of the community". The third is that it is the ability to live independently of nursing homes and institutions. And the fourth definition, provided in this case by the Berkeley Center, states:

"To us independence does not mean doing things physically alone. It means being able to make independent decisions ... It is the ability to take on the major responsibility for determining one's own lifestyle."

The ability to attain an independent living status is dependent on factors beyond desire, and as such is heavily constrained by the ideological and material conditions that prevail within particular societies. It is suggested in the International Perspectives about Independent Living ([62], pp. 24-25) that conditions for independent living are facilitated primarily in

those societies that place a high value on equality and solidarity and provide high levels of income subsidies for the entire population as the means for attaining this equality and solidarity.

These conditions are difficult to find in the world today. Whether in developed or developing countries, disabled persons tend to be among the most disadvantaged. It is this fact that facilitates a discussion of the problems of disability in both developed and developing countries. As the evaluation of the Disabled Peoples' International notes:

"The main common element linking disability with other development problems is the issue of powerlessness, with resulting absence of economic leverage which prevents people from taking control of the situation to effect change. It also means being deprived of knowledge to make necessary change and being stigmatized by negative myths."

The relationship between economic well being and the level of participation is crucial. The Norwegian Committee for the International Year of Disabled Persons has described the conditions for the participation of disabled people in their own country in terms that could easily apply to other societies, whether developed or developing:

"In all areas of society the disabled as a group are poorly represented. They participate less, and have less influence than the rest of the population. As a group they have a lower income, poorer housing conditions and poorer education, and fewer have work, holidays and active leisure time than most people. They have few possibilities of choosing how to arrange their affairs, what they wish to do and how they wish to use their lives. The disabled are normal people with common human needs. The real difference lies in the disparity in conditions of life."

The national report of the Federal Republic of Germany suggests that "the right of the disabled to have a suitable job forms an indispensable precondition of any social integration - irrespective of the technical level of development reached in the individual countries" ([41], p. 7). In other words, a certain degree of economic and social well-being is a precondition, before one can even contemplate participation. Where conditions for participation for the rest of the population are precarious at best, where the majority of the population lives under conditions of massive deprivation, participation carries little meaning except as an admirable exhortation. Participation that aims at influencing issues of social policy to affect the direction of decisions, and that simultaneously seeks to develop the capacities of those involved in this endeavour, is rare under present conditions.

The problems and anxieties that confront disabled persons themselves, are mirrored in the problems that face policy-makers at both national and international levels. An important document by WHO in the field of disability opens with the observation: "The ability-capability gap, the discrepancy between what health-care systems can do and what they might do constitutes one of the greatest challenges for those concerned with health care and welfare" [3].

On the one hand, medical science and technology have progressed to a point where many disabilities can be successfully prevented, or their consequences alleviated. On the other hand, there are the perceived constraints imposed by calculations based on the economics of health care as well as welfare. It is precisely here that the opportunity lies both for a more sensitive approach to the problem of disability and its consequences and a more socially conscious understanding of the broader range of conditions that give rise to disability in the first place.

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