DISABILITY PREVENTION AND REHABILITATION

Report by the Director-General

This document provides information on the implementation of resolution WHA42.28, which requested a review of the progress made during the United Nations Decade of Disabled Persons (1983-1992) and a report on the situation regarding prevention of disability and rehabilitation of the disabled. An important need apparent at the close of the Decade is for rehabilitation, which has had low priority compared with primary and secondary prevention of disability. The views of members of the Executive Board are therefore sought concerning the proposals in section 6 of the report for action to strengthen all levels of disability prevention, with special emphasis on rehabilitation services.

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I. INTRODUCTION

1. During the United Nations Decade of Disabled Persons (1983-1992), preventive measures have significantly reduced the incidence of some diseases which can cause disabilities. Public awareness about disability has increased following the awareness campaigns during the International Year of Disabled Persons in 1981, and the efforts made during the Decade. In some countries this has led to modest improvements in social integration for those who have mild to moderate disabilities. In developing countries there has not been a significant increase in rehabilitation services that provide training, equipment or appliances to improve disabled people's abilities in self-care, communication or mobility.

2. The Declaration of Alma-Ata (1978) states that primary health care "addresses the main health problems in the community, providing promotive, preventive, curative and rehabilitative services accordingly". Following Alma-Ata, WHO developed the concept of community-based rehabilitation as a strategy for integrating rehabilitation into primary health care. This strategy calls for the use of community resources, including the community health worker, to help disabled people to increase their abilities to perform self-care, move around and communicate, as well as to go to school, work and take part in family and community activities. While strategies developed for health promotion and preventive and curative care have been effective in reducing the occurrence of disabilities, the community-based rehabilitation strategy has had less impact.

3. This report describes the activities of the past decade and the current status of disability prevention, rehabilitation and social integration of people with disabilities, particularly in developing countries. The report ends with proposals for action, with emphasis on strengthening rehabilitation services for people with disabilities.

4. The information is presented with reference to primary, secondary and tertiary prevention. The terms disease, impairment, disability and handicap are used as they are defined in the International Classification of Impairments, Disabilities and Handicaps. Hence, an impairment is an abnormality of psychological, physiological or anatomical structure or function. Disability is the restricted ability to perform an activity. Handicap is the inability to fulfil normal roles due to cultural, social, economic or physical barriers.

5. Prevention of disability is carried out through public health measures aimed at preventing disease, through curative measures which treat the disease, and through curative and rehabilitative measures which treat the impairment or the disability, with the three types of measures forming a continuum of primary, secondary and tertiary prevention.

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6. Through its different programmes concerned with prevention (see paragraph 8) WHO cooperates with other United Nations agencies, IMPACT - the international initiative against avoidable disablement, multilateral and bilateral agencies, and nongovernmental organizations in their efforts to prevent disabilities and to promote services for disabled people.

II. DISABILITY PREVENTION

7. Most efforts to prevent disability have focused on the two stages which precede disability in the progression from disease to handicap, namely prevention of disease or injury (primary prevention) and prevention or treatment of injury or impairment (secondary and tertiary prevention).

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Prevention of disease or injury leading to disability (primary prevention)

8. During the 1980s Member States reduced the incidence of several diseases that were major causes of disabilities, with support from WHO, other United Nations bodies and international nongovernmental organizations. This report presents brief descriptions of the work of eight WHO programmes concerned with prevention.

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<th>WHO programmes with a special focus on prevention of diseases or conditions that cause disabilities:</th>
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9. Other groups of WHO programmes dealing with communicable diseases, control of tropical diseases, family health, health protection and promotion, mental health, and noncommunicable diseases and health care technology also contribute to the prevention of disease or injury, as do the programmes for health of the elderly, onchocerciasis control in West Africa and promotion of chemical safety, by promoting healthy lifestyles and a safe environment.

Prevention of poliomyelitis, measles and tuberculosis

10. The main objective of the Expanded Programme on Immunization is to reduce morbidity from six childhood diseases: poliomyelitis, diphtheria, pertussis, tetanus, measles and tuberculosis. Three of these diseases have the capacity to produce long-term disability following an acute attack or its subsequent complications. For most victims of paralytic poliomyelitis, the acute infection results in irreversible destruction of some neurones, leading to lifelong orthopaedic problems. In countries with poor rehabilitation services, any resulting immobility can lead to contractures and further disability. Measles victims have a 0.1% chance of suffering from encephalitis with the risk of consequent brain damage. Less life-threatening complications such as eye and middle-ear infections can result in blindness and deafness. Two severe forms of childhood tuberculosis, bone and meningeal, can lead to severe long-term disability.

11. Since its creation in 1974 the Expanded Programme on Immunization has steadily increased immunization coverage among infants. From 1985 onwards coverage rates accelerated as countries aimed to reach the 1990 global target of 80% coverage with all vaccines by the age of 12 months. At the end of 1990 global coverage levels by the end of the first year of life had reached 85% for poliomyelitis (full course), 83% for diphtheria-pertussis-tetanus (three doses), 80% for measles and 89% for BCG vaccination. However, the achievements are not uniform. For example, 14 out of 46 countries in Africa have less than 50% of their children fully immunized, and three have not reached 20% coverage.

The impact of this high immunization coverage has been predictable. It is estimated that 445 000 cases of poliomyelitis and 84 million cases of measles are being prevented annually.

Prevention of blindness

12. The programme for prevention of blindness has as its objectives the elimination of avoidable blindness and the provision of essential eye care to all populations. It is currently estimated that there are approximately 35 million blind people in the world, to which should be added another 15-20 million suffering from severe visual impairment and disability. More than 90% of the visually disabled live in developing countries where the bulk of visual loss is caused by unoperated cataract, trachoma and associated eye infections, xerophthalmia.
due to vitamin A deficiency, onchocerciasis, glaucoma and ocular trauma. At least two-thirds of this visual disability is avoidable.

13. Since inception of the programme in 1978 WHO has, in cooperation with Member States, been promoting the establishment of national programmes for the prevention of blindness based on primary health care.

Seventy-two countries now have national programmes which make use of the primary health care approach for the primary and/or secondary prevention of common blinding disorders.

14. WHO collaborates closely with a network of international nongovernmental organizations working in the field of blindness prevention. These organizations provide valuable financial and other support to a number of countries, in the order of US$ 30 million a year. Particular emphasis is placed on the training of a variety of personnel in eye care and on the application of appropriate technology.

Prevention of deafness and hearing impairment

15. The programme for prevention of deafness and hearing impairment was established quite recently, with very modest resources, and therefore its activities have so far been limited. One major constraint is the absence in developing countries of reliable data of epidemiological significance concerning the magnitude of the problem of hearing impairment. The lowest estimate, on the basis of information available from developing countries, is that there are some 42 million cases of moderate, severe and profound hearing impairment. The causes of hearing impairment are, again, not well known; but generally hereditary disorders, perinatal conditions, infectious diseases and the use of ototoxic drugs are important. To these should be added the effects of noise in some settings.

16. WHO will promote primary ear care as an integral part of primary health care. National programmes will build the continuum of prevention from primary to tertiary levels so that ear care includes the prevention of diseases and conditions which cause deafness, as well as the provision of hearing aids for people with hearing loss.

Prevention of disabilities at birth and in early childhood

17. The programme for maternal and child health, including family planning, promotes the strengthening of primary health care so that early detection and intervention can reduce the occurrence and effects of conditions such as ophthalmia neonatorum, upper respiratory infections and otitis media, and nutritional deficiencies. In addition, it has developed methods for monitoring and treating conditions which can cause cerebral palsy, epilepsy or mental retardation in the prenatal, natal, infancy and early childhood periods.

18. Two monitoring methods have proved to be useful in the identification of pregnant women whose babies are at risk of suffering birth trauma or asphyxia. These are use of the home-based maternal records and the monitoring of labour using the partograph at referral levels. Mothers themselves, community health workers, traditional birth attendants and health personnel at referral levels can participate in the monitoring process. In addition, the traditional birth attendants and other health personnel are trained in simple technologies to perform safe deliveries and resuscitation of asphyxiated babies.

19. To aid in the early detection of delayed development, the WHO programme is testing a child growth and psychosocial development home-based record. This incorporates culturally appropriate milestones of psychosocial development in pictorial and colour-coded forms which facilitate understanding and also help in monitoring and recording by the mothers, community health workers and members of the community. Stimulation of developmentally delayed children can be started at home or in the community before moderate to severe retardation is established.
Prevention of disabilities associated with specific nutrient deficiencies

20. Iodine deficiency and vitamin A deficiency are two of the world's greatest causes of preventable disability. It is estimated that iodine deficiency is currently responsible for 6 million cases of cretinism, and is the commonest cause of preventable mental retardation. Vitamin A deficiency is the world's commonest cause of preventable blindness in children, being currently responsible for total or partial blindness in some 500 000 preschool children per year.

21. Particularly over the past decade WHO has been at the forefront of renewed global efforts at country, regional and global levels to control and eliminate iodine deficiency disorders. This has included collaboration with UNICEF in establishing the highly successful International Council for Control of Iodine Deficiency Disorders, assisting Member States in setting up iodized salt and iodized oil programmes, and organizing regional control activities in Africa, the Americas, the Eastern Mediterranean, South-East Asia and the Western Pacific. It is just becoming apparent that iodine deficiency disorders remain a substantial problem in several European countries, and WHO is now cooperating in its assessment and in programme formulation. The World Health Assembly in 1990, by resolution WHA43.2, resolved that WHO should aim at eliminating iodine deficiency disorders as a major public health problem in all countries by the year 2000. This goal was reiterated at the World Summit for Children (New York, September 1990), and at the policy conference on micronutrient malnutrition (Montreal, October 1991).

22. The goal of virtual elimination of vitamin A deficiency and its consequences by the year 2000 was also endorsed by the World Summit for Children and the Montreal conference. WHO's activities at country, regional and global levels involve not only active collaboration with other international, bilateral and nongovernmental organizations, but also across WHO programme areas. With the ultimate aim of strengthening national vitamin A programmes through primary health care to ensure an adequate dietary intake of vitamin A, supplemented where necessary by vitamin A capsule distribution to preschool children, WHO is supporting national vitamin A programme development, monitoring and evaluation, education, training and communication activities.

Prevention of Injuries

23. Injury is a major cause of impairment and disability, although it is not yet perceived as such by society. One reason for the lack of awareness is the paucity of data on the real extent and severity of disabilities produced by trauma, particularly in developing countries.

24. In the countries of the European Community, head injuries are the first cause of death among the 50 000 road fatalities occurring each year. In addition, head injuries require one million hospitalizations and result in 10 000 new cases of disability, including epilepsy, psychological damage, loss of vision or locomotion, or even coma or indefinite dependence on medical life support systems. In the United States of America, more than 80 000 people are permanently disabled because of brain or spinal cord injuries.

25. WHO's activities in the area of injury prevention and control aims at disability prevention and mitigation at three levels, namely: prevention of hazards which can cause injuries, prevention of the occurrence and severity of injuries which can be caused by hazards, and management of the injury or impairment. At the level of primary prevention of hazards, discussed in this section of the report, every opportunity is taken internationally, through secretariat consultations or scientific meetings, to promote the principle that policies in the different socioeconomic development sectors should include a safety component. Contacts are maintained with the World Bank, OECD and the United Nations economic commissions on transport safety, and with the European Community and OECD on product safety.

26. Activities in the area of injury prevention emphasize the role of the health sector as an active contributor to intersectoral action, many facets of which are also important for secondary and tertiary prevention. For the purpose of primary prevention, WHO is now active in establishing procedures in cooperation with institutions such as burn centres, geriatric departments and emergency services, which aim at giving the health sector not only a "warning" type of role but also making it a provider of basic health information to enhance injury protection through such means as improved design of products, creation of an appropriate physical environment for elderly people, and development of safety devices in the transport field. Current projects in
this area deal with prevention of falls in the elderly, burn prevention in children, and injury prevention and protection, particularly with regard to brain trauma.

27. Legislation requiring helmet-wearing for motorcyclists has reduced the number of deaths and serious injuries by about 30%. WHO has launched, in cooperation with its network of collaborating centres, a broad-based project on brain trauma prevention, care and rehabilitation, the first phase of which focuses on promotion of helmet-wearing and assessment of the extent and severity of brain trauma.

Prevention of disability at the workplace

28. Sustainable development of society is ensured by the working population, which represents 40%-45% of the total population. Damage from occupational hazards (physical, chemical, biological, psychosocial and ergonomic) has a considerable impact on the health of the working population in all Member States. The leading work-related illnesses and injuries are believed to be, in descending order: respiratory diseases; musculoskeletal disorders; cancer; injuries such as amputations and fractures; cardiovascular diseases; disorders of reproduction; neurotoxic disorders; noise-induced hearing loss; dermatological disorders; and psychological disorders.

29. The main strategy of the WHO workers' health programme is primary prevention of health hazards at the workplace. The safe workplace approach comprises anticipation, recognition, evaluation and control of occupational hazards at work. To promote this approach, guidelines and manuals on occupational health technology for the evaluation of occupational health hazards and their prevention have been developed.

30. WHO promotes the setting-up of national programmes on occupational health and the development of adequate occupational health services. Particular emphasis is placed on training the different specialists involved. The primary health care approach is promoted for care of underserved working populations, including agricultural and small-scale industry workers. WHO also monitors adverse health effects on working populations of the introduction of new technologies and materials, and supports countries in dealing with new and existing health problems in work settings.

Prevention or treatment of injury or impairment (secondary and tertiary prevention)

31. Several WHO programmes give special attention to impairments, either for prevention or treatment. Intervention after the onset of some diseases can be an effective means of preventing impairment. Early detection and treatment of trachoma or glaucoma, for example, can prevent visual impairment. For other diseases, such as poliomyelitis, there is no effective treatment to prevent impairment. None the less, early intervention and treatment of the impairment can be very effective in minimizing its effect and decreasing the potential disability. The use of multidrug therapy in leprosy is an example of an intervention to treat the disease and limit the impairment.

Treatment for leprosy and the resulting impaired sensation

32. The WHO policy on leprosy control aims to prevent and limit disability due to leprosy and to promote the rehabilitation of those who are already disabled. The use of multidrug therapy has considerably decreased the prevalence of leprosy as well as the rate of disability among new cases. There is also a slow but consistent decline in the incidence of the disease, particularly among children, suggesting a decrease in the transmission of leprosy.

Multidrug therapy has been instrumental in effecting a 31% reduction of leprosy prevalence in the world: from 5.4 million registered cases in 1985 to 3.7 million in 1990.

33. Concurrently with the administration of multidrug therapy, persons with impaired sensation should be educated on the care of their hands and feet to prevent deformity and disability. WHO promotes a strategy for including disability prevention in leprosy control, particularly for patients receiving multidrug therapy. This involves identifying patients at risk of disabilities, monitoring them carefully, and intervening where necessary. Patients already disabled, particularly those who have completed chemotherapy, should be able to benefit from
the rehabilitation services offered to people with other types of disabilities. If a community-based rehabilitation programme is in operation, it should include community members with leprosy.

**Prevention of deformity in poliomyelitis**

34. Rehabilitation is one of the strategies of the poliomyelitis eradication policy of the Expanded Programme on Immunization. The objective of the strategy of rehabilitation is to provide follow-up care for children who have residual paralysis. Guidelines for the prevention of deformity in poliomyelitis have been issued in the form of a manual.\(^1\) It can be used for training health workers in procedures which they should then teach to families for prevention of deformities and for social integration of children with poliomyelitis. The manual can be used most easily in rehabilitation programmes which already provide services in the community. Where such programmes do not exist, the interventions for the care of children with poliomyelitis may stimulate interest in providing services for others with impairments or disabilities.

**Treatment of eye disease and visual impairment**

35. The programme for prevention of blindness has developed a concept of primary eye care as part of primary health care for the control of locally endemic diseases. This scheme has proved to be very useful at the community/district level for the early detection and management of common blinding disorders and is being implemented successfully in a growing number of countries. Of particular importance is the fact that primary eye care makes it possible to identify persons suffering visual disability from unoperated cataract. This condition is generally responsible for 50% of all visual disability, and relatively simple cataract surgery can correct it. Much emphasis is being laid on large-scale cataract surgery in many developing countries. Thus, experience in East Africa has shown that the surgery can be carried out by selected, well-trained ophthalmic assistants.

36. The correction of refractive anomalies by means of spectacles is another matter of particular importance in reducing visual disability. A model for the production of spectacles at low cost in local optical workshops has been developed and implemented in some 20 countries, in collaboration with a nongovernmental organization, Christoffel Blindenmission (Germany). This scheme has proved successful, but needs to be expanded considerably to meet the needs for spectacles in most developing countries. The present annual output from the workshops is less than 100,000 pairs of spectacles, whereas millions are needed.

**Aids to reduce hearing impairment**

37. Hearing disability can have very severe consequences, particularly in children, where it may lead to absence of speech development. Therefore, WHO has focused its initial efforts on the diagnosis of hearing impairment and on trying to develop a cheap audiometer for field use, in collaboration with interested institutions. Such audiometers are available today at reasonable cost, and field surveys for the assessment of hearing disability are being carried out in some developing countries. Other work includes the development of ear care as part of primary health care and the provision of low-cost hearing aids. The latter have been the subject of several years of effort, involving consultations by the WHO Regional Office for Europe with interested manufacturers. In this way, it has been possible to develop a robust, body-worn hearing aid at the approximate cost of US$ 60. This hearing aid is currently being field-tested in one African country. The overriding concern is, however, that the cost of hearing aids has to be further reduced to make them truly affordable for all those in need. Furthermore, the provision of hearing aids should include the fitting of ear moulds and regular follow-up.

**Management of injuries to prevent disabilities**

38. It is largely recognized that injury management and care is of fundamental importance for the prevention and mitigation of disabilities. The principle of the "golden hour" for intervention stresses the relationship between immediate care and the level of severity and consequences of injuries. In this connection, WHO, in cooperation with several countries, is analysing the potential role of emergency care services, not only in managing injuries, but also in strengthening databases on the impact of injuries on health and improving

\(^1\) Document WHO/EPI/POLIO/RHB/91.1.
procedures for use of this information in action programmes on injury protection/prevention, training and research.

III. REHABILITATION (TERTIARY PREVENTION)

39. The distinction between treatment of impairment and treatment of disability is not always clear. Providing eyeglasses for visual impairment may restore normal vision, thus eliminating the disability. Providing braces to support legs with impaired muscle function will decrease the restriction on walking, but will not provide a normal gait. Hence the disability is decreased, but is still present. Rehabilitation is generally considered to be the process by which disability is minimized, but not eliminated.

40. For individuals with impairments and disabilities, the rehabilitation process may include measures to reduce both. Surgery, for example, may reduce the impairment, while provision of appliances and adapted equipment may reduce the impairment or the disability. A major part of the rehabilitation process is the acquisition of skills for performing self-care, moving around and communicating, or for functioning within the family, at school, at work or in the community.

Need for rehabilitation

41. The number of disabled people in developing countries is not known. WHO has estimated that disabled people form 7% to 10% of the population in any country. This figure includes individuals with locomotor, mental, seeing and hearing disabilities. The United Nations Statistics Office has published a compendium,¹ which presents statistics for disability from 55 nations. The percentage of disability that was found ranges from 0.2% to 20%. The compendium emphasizes the need for a uniform method for collection of data on disability. The overall percentage of disabled people who need rehabilitation is also unknown, although some figures are available.

A number of community-based rehabilitation programmes in Africa and Asia have found that approximately 1.5% of the population is in need of rehabilitation services at any one point in time.

42. The number of disabled people who are receiving services is uncertain. Some developing countries have estimated that services in urban areas may reach 15% of the disabled who need them, but only 1% of those in rural areas. Coverage in developing countries is difficult to estimate because many rehabilitation projects are managed by nongovernmental organizations and there is no central coordination unit. However, there is little evidence to indicate an increase in rehabilitation services in rural areas during the past ten years.

43. The wars and natural disasters of the past decade have focused attention on the need for rehabilitation services. Efforts have been made in cooperation with WHO's Emergency relief programme to find ways of providing rehabilitation services to disabled people in refugee or displaced populations. WHO was represented on the interagency Committee on Assistance to Disabled Afghans established by Operation Salam. That body has prepared guidelines for including preventive and rehabilitative care in the health, education and vocational services to be set up for Afghans.

44. When war or natural disaster occurs in a developing country, the absence of staff or a system for the delivery of rehabilitation makes it extremely difficult to establish new services under the emergency conditions. The services most likely to be set up are those for the provision of prosthetic and orthotic appliances; and this is done by international agencies using expatriate staff. To the extent possible, emergency services should be developed into a permanent system for rehabilitation with personnel from within the affected country. However, efforts to do this have had very limited success.

Community-based rehabilitation

45. When community-based rehabilitation was developed as a strategy for integrating rehabilitation services into primary health care, work was started on a manual for the transfer of rehabilitation technology to disabled people, their families and communities. After several revisions based on field tests, this manual was published, and has since been translated into more than a dozen languages.

46. In community-based rehabilitation, community members or organizations take responsibility for assisting disabled people or their families, for arranging for disabled children to attend the local school, for providing job training and work for people with disabilities, and for ensuring that disabled members of the community are included in all social activities. The work of the community is supported by referral services for rehabilitation. When community-based rehabilitation is integrated into primary health care, the community health worker is the person responsible for identifying people with disabilities and initiating the rehabilitation process. Rehabilitation services are also available within the medical referral system. Because the rehabilitation process requires more than medical care, intersectoral cooperation is needed among health, education, vocational and social services.

Rehabilitation referral services

47. Medical rehabilitation referral services are essential for the development and expansion of community-level services. Families of disabled people and communities can take responsibility for much of the training in daily activities and the social integration of disabled people, but referral services are needed to guide the training, and provide appropriate appliances and equipment. To develop rehabilitation referral services, it is necessary to have both staff with knowledge of rehabilitation technology, and appropriate appliances and aids.

Training of rehabilitation staff

48. To promote staff development for rehabilitation, two interregional consultations on the training of personnel have been held. The first (Alexandria, June 1990) considered the need for different levels of personnel who prepare artificial limbs and braces, and produced guidelines for the training of personnel in developing countries for prosthetic and orthotic services. The second (New Delhi, September 1991) reviewed country experience in the use of mid-level rehabilitation workers, who provide medical rehabilitation services at the first referral level and also work with the community for the development of community-based rehabilitation.

49. With funds from the Swedish International Development Authority, the WHO rehabilitation programme has cooperated with individual countries in setting up short-term training courses for personnel in community-based rehabilitation. International nongovernmental organizations have also been mobilized to support countries in the provision of rehabilitation services, with emphasis on staff training.

Provision of aids and appliances

50. WHO has collaborated with other United Nations bodies and nongovernmental organizations in the development of aids and appliances that are appropriate technically, socially and economically. The three types of disabilities which require aids are visual, hearing and locomotor.

51. The provision of "low-vision care", with emphasis on training in the use of residual vision and the supply of optical appliances, is being addressed by the WHO programme for prevention of blindness, in collaboration with other interested agencies and nongovernmental organizations, notably the International Council for Education of the Visually Handicapped. The limited resources available to the WHO programme have so far not allowed large-scale action, but it is hoped that extrabudgetary resources will become increasingly available for this purpose. Emphasis will have to be placed on training, as there are very limited possibilities for sophisticated technology in developing countries.

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2 Document WHO/RHB/90.1.
52. Following an interregional seminar on orthopaedic technology in developing countries (Dakar, May-June 1989), at which participants emphasized the need for low-cost materials and manufacturing methods which would permit wider distribution of appliances in developing countries, a collaborating centre for orthopaedic technology was designated.

Rehabilitation services in developing countries

53. During the Decade of Disabled Persons, a number of community-based rehabilitation projects were set up under the guidance of government or nongovernmental agencies. However, no country has implemented community-based rehabilitation nationally. Within the past several years some developing countries have made rehabilitation a component of their national health programmes. These are countries which have developed rehabilitation services at third and second referral levels, and are now strengthening the services at first referral level. Although these countries plan to expand community-based rehabilitation services nationally, at present the projects exist in only small areas.

54. Most developing countries do not include rehabilitation in their national health care plan. None the less, some countries have had experience with community-based rehabilitation projects, either within government services or with the support of nongovernmental organizations, although they have been confined to small areas. Some countries have increased the number of rehabilitation personnel, particularly within central hospitals. These personnel, usually physical therapists, work primarily with individuals who have temporary impairments or disabilities due to acute orthopaedic conditions. Rehabilitation services for people with permanent disabilities are often minimal.

Reasons cited by countries for the slow development of rehabilitation services include:

- low priority for rehabilitation compared to prevention and cure of diseases;
- lack of information and understanding of how to implement community-based rehabilitation;
- lack of necessary cooperation among all sectors involved in rehabilitation, both nationally and internationally;
- lack of manpower, especially at the first referral level.

IV. SOCIAL INTEGRATION

55. The aim of rehabilitation is to minimize disabilities so that disabled people can live in the most normal manner possible. However, minimizing a disability does not guarantee social integration of the person with the disability. Social integration depends not only on the disabled person, but also on the society. Cultural, social, economic and physical barriers can handicap a disabled person by preventing him or her from fulfilling roles which are considered normal in the individual's society.

56. The World Programme of Action Concerning Disabled Persons calls for prevention, rehabilitation and the equalization of opportunities. Equalization refers to the right of disabled people to participate in their society. Many countries have addressed the question of the rights of disabled people through special policies or legislation. Others guarantee the rights of the disabled as members of society on an equal basis with non-disabled citizens. But some countries have not dealt with the issue of equalization of opportunities for people with disabilities.

57. The promotion of medical, educational and vocational rehabilitation, and of equalization of opportunities is coordinated by WHO, UNESCO, ILO and the United Nations Office at Vienna respectively. These and other United Nations bodies, particularly UNICEF and UNDP, and international nongovernmental organizations, are working together to promote all aspects of rehabilitation and equalization of opportunities. None the less, Member States have indicated that even more coordination is needed at the international level in order to encourage better cooperation among the government and nongovernmental sectors involved in rehabilitation at the national level. The impression within countries seems to be that social integration of people with disabilities has progressed during the Decade of Disabled Persons, but is still a long way from the goal of equalization of opportunities.
V. CURRENT STATUS OF DISABILITY PREVENTION AND REHABILITATION

58. The Universal Declaration of Human Rights and the WHO concept of health for all and the strategy for achieving it through primary health care including rehabilitation were formulated before the start of the Decade of Disabled Persons. The World Programme of Action Concerning Disabled Persons, drawn up at the beginning of the Decade, calls for three types of action to promote prevention, rehabilitation and equalization of opportunities. Although each is the subject of global efforts, it appears that none has had a significant impact on the lives of disabled people, particularly in developing countries.

59. During the Decade of Disabled Persons, the major achievement was in primary prevention. Significant reductions were achieved in the incidence of some diseases and impairments which lead to disability. Goals to further reduce, or to eliminate, some causes of disability will be addressed in the next decade.

60. The 1991 Leeds Castle Declaration, prepared at the international conference on the prevention of disability (Kent, United Kingdom, September 1991) notes the progress made since the 1981 Leeds Castle Declaration, and identifies priorities for the future. These refer to all disability-related issues, including social integration. At national and international levels there is growing concern about the cost incurred by not providing rehabilitation services. Concern about human rights highlights the need to guarantee the basic rights of people with disabilities.

61. Some Member States have turned their attention to tertiary prevention. However, in developing countries this generally has low priority within health care systems. In some countries limited measures have been implemented; in others, national health plans envisage future activities for rehabilitation; and in many, there is no national planning for rehabilitation.

62. WHO has recognized the need for more intensive efforts in disability prevention, rehabilitation and social integration of people with disabilities. Some of the WHO programmes concerned with prevention include tertiary measures among their activities, which nevertheless focus on primary prevention. Examples are the Expanded Programme on Immunization initiative for prevention of deformities in children who get poliomyelitis, and the concern in the programmes for prevention of blindness and of deafness and hearing impairment to provide aids and appliances for people with low vision or hearing impairment. WHO has identified prevention and reduction of impairment and disability as a specific issue as part of health protection and promotion, having special political, economic and technical significance. Health protection and promotion includes activities for primary, secondary and tertiary prevention. Hence, it has a special role to play in strengthening the links between the different types of prevention, and promoting the integration of disability prevention and rehabilitation into primary health care.

VI. PROPOSED ACTION

63. WHO will emphasize prevention of disabilities and rehabilitation in its promotion of the basic human right to health. In particular, WHO will promote the right of people with disabilities to have access to the services they need for healthy living. Two levels of intervention will be undertaken, respectively to strengthen prevention of disabilities and to promote rehabilitation for disabled people.

Prevention of disabilities

64. Emphasis at this level of intervention will be on primary and secondary prevention. Although each of the programmes concerned with prevention that are presented in this report has an established range of activities, there is a need for closer links among the programmes. Intervention at this level will therefore focus on integration of programmes, aiming specifically to:

- increase collaboration among the individual programmes presented in this report, with an emphasis on the continuum of the different types of prevention;

- develop strategies for strengthening the continuum of primary, secondary and tertiary prevention within primary health care;

- establish an information base to monitor the effectiveness of the programmes;
- promote collaboration with interested nongovernmental organizations working in the field of disability prevention;

- strengthen the coordination of disability prevention among all interested United Nations technical bodies, with the WHO programmes concerned providing the advisory services needed in this field and assuming a role of public health leadership;

- investigate and support new approaches to the prevention of disabilities, in broad collaboration with interested technical institutions such as collaborating centres, United Nations bodies and the nongovernmental community, while taking advantage of the opportunities for development offered by IMPACT, the international initiative against avoidable disablement.

Rehabilitation

65. Emphasis at this level of intervention will be on strengthening of services for people with disabilities, and integration of rehabilitation within primary health care and the health services referral system. WHO wishes to mark the end of the Decade of Disabled Persons by renewing its efforts to strengthen rehabilitation, the weakest link in the continuum of prevention of disabilities. In this way, WHO will also promote disabled people's right to health.

66. Intervention at this level will be carried out in accordance with a Plan of Action for Rehabilitation, whereby WHO will seek to:

- promote the development of national programmes for rehabilitation within the health services, including production of a management guide for community-based rehabilitation and its referral system, and analysis of the cost of different types of rehabilitation services (e.g., institution- and community-based) in specific country situations;

- promote the training of central-level rehabilitation personnel for management, teaching and supervision for rehabilitation services within the referral system, including preparation of a content list for training or retraining the personnel who will provide specialized rehabilitation services;

- promote the development of rehabilitation services at the first referral level, including production of guidelines for training mid-level rehabilitation workers who can provide basic services for people with locomotor, mental, visual or hearing disabilities;

- promote the incorporation of rehabilitation into primary health care using the community-based rehabilitation strategy, including support for the translation and adaptation of the community-based rehabilitation manual1 into the major languages of Africa and Asia, and provision of basic information about disabilities and rehabilitation that can be included in the training of all health care personnel;

- promote the development of rehabilitation technology, including work with collaborating centres on testing of materials and designs in prosthetics, orthotics and other fields, and cooperation with nongovernmental organizations to design or identify rehabilitation technology appropriate for developing countries, and to disseminate the information.

67. The work of the rehabilitation programme will be coordinated with that of other WHO programmes concerned with prevention so as to promote a continuum in the planning and delivery of services for primary, secondary and tertiary prevention. Similarly, WHO as a whole will collaborate with other United Nations bodies, bilateral and multilateral aid agencies, international and national nongovernmental organizations, and professional rehabilitation organizations to strengthen rehabilitation services at all levels and within all sectors.

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