National Physical Rehabilitation Strategy

Ministry of Labour and Social Affairs

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Ministry of Labour and Social Affairs

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Acronyms

CBR	Community Based Rehabilitation
CSA	Central Statistics Authority
FDRE	Federal Democratic Republic of Ethiopia
ICRC	International Committee of the Red Cross
MoE	Ministry of Education
MoH	Ministry of Health
MoLSA	Ministry of Labour and Social Affairs
NGO	Non-Governmental Organizations
OPWDs	Organization of Persons with Disabilities
POC	Prosthetics-Orthotics Center
PWDs	Persons with Disabilities
UN	United Nations
WHO	World Health Organization

1. Introduction

The Government of the Federal Democratic Republic of Ethiopia (FDRE) has recognized and paid due attention to promote the rights, equal opportunities and participation of Persons with Disabilities (PwDs) for the very important reasons that the issues of PwDs are questions of human rights and economic development. To this effect, among other things, the government has ratified the UN Convention on the Rights of Persons with Disabilities (UNCRPDs), issued the Proclamation 568/2008 to Employment of Persons with Disabilities and developed a National Plan of Action for PwDs which is an instrument to change the UNCRPDs in to action.

This National Physical Rehabilitation Strategy is also another intervention that enlightens a systematic approach to help facilitate and promote the expansion of Physical Rehabilitation services in its quality and coverage in the country. The strategy paper is organized in to six different but integrated epidemics. Part one gives an overview of PwDs, objective and significance of the Strategy. Part two deals on the situation of PwDs, part three on policy framework, part four on the general service delivery system. Part five covers the collaboration and coordination aspect of the service provision. Finally, part six is about Monitoring and Evaluation.

1.1. General Overview

In Ethiopia, provision of assistances to PwDs was started about half a century ago. The assistance began by philanthropic individuals organized under a “Mahiber.” Then after some time, few NGOs started supporting the “Mahiber” and established new centers. At that time the government was not involved in the issue of PWDs. Very recently, it has been understood that the issue of PwDs to be a question of human rights and a development agenda.

In this regard, the government has been establishing new rehabilitation centers at federal and regional levels. Currently, there are few governmental and non-governmental rehabilitation centers that are trying, to the best of their capacity, to provide services to persons with disabilities. However, establishment of POCs, both by the government and non-governmental organizations is made without verification of their strategic importance in the provision of adequate and sustainable assistance to the needy. As a result resources are mobilized spontaneously in an attempt to fight problems that prevail at a given time and situation.

1.2. Objectives of the strategy

1.2.1. General objective

To create common guiding instruments not needed in order to enhance and scale up the performance of the Government, Non-governmental organizations and other stakeholders working in this field, Organizations of PwDs and the public at large in discharging their responsibilities in the provision of adequate and standardized services to PwDs.

1.2.2 Specific objectives

- Mobilize the national resource; material, financial and human in a planned and coordinated manner through instituting relevant institutions which could scale-up the provision of physical rehabilitation services to persons with disabilities;
- Ensure the provision of physical rehabilitation services to persons with disabilities in un interrupted manner;
- Create favorable condition for gathering relevant data concerning the aforementioned services to the needy PWDs for policy decisions;
- Assist governmental and non-governmental organizations in their strive to provide assistances for persons with disabilities;
- Mobilize the community, the family and persons with disabilities through awareness raising in the coordination, monitoring and evaluation of the services provided.

1.3. Significance of the Strategy

For the achievement of the above objectives, the strategy shall be of a great help by:

- Clearly defining the authority, responsibility and duties of the different stakeholders in addressing the issues of persons with physical disabilities,
- Creating synergy among the different actors in addressing the issues of persons with physical disabilities,
- Creating conditions for economic use of resources ,
- Helping concerned bodies to identify priority areas and act accordingly.
- Helping roll players to think strategically and formulate their plan of actions accordingly,
- Creating favorable ground for policy makers concerning PwDs.

2. Situational analysis of persons with disabilities in Ethiopia

2.1 The extent of disability

Disability is defined from different perspectives for various purposes. The lack of a common definition is likely to create difficulty in getting uniformity in the understanding of the issue. The UN Convention on the Rights of Persons with Disabilities (UNCRPD) does not even explicitly define the term disabilities. Thus, the Convention indicates that the term disability includes **"Persons who have long-term physical, mental, intellectual or sensory impairments that in the face of various negative attitudes or physical obstacles may prevent those persons from participating fully in society".** It conceives that disability has to be seen as the result of the interaction between a person and his/her environment, that disability is not something that resides in the individual as the result of some impairment. Thus, disability can occur anytime, anywhere on any person. Thus, no one is immune from disability.

The World Bank (2008) has also defined disability as the result of the interaction between people with different levels of function and the environment.

The definition underscores that people with physical, sensory, mental or intellectual disabilities are disadvantaged because they are denied of access to education, health, employment, and equalization of opportunities and full participation in all spheres of life. This exclusion may be due to inadequate provision of physical rehabilitation services that complicate the prevalence of barriers to social, cultural, economic, political and physical environment.

In relation to this, shortage of reliable qualitative and quantitative data on disability is another challenge. There is no nation-wide data collection or census mainly focusing on disability. It is the national population and housing census report that attempts to depict the magnitude of disability at National level. In addition to this, it has been common to apply the World Health Organization (WHO) estimate on disability rate when national data does not exist or considered to be inadequate.

It is estimated that there are over 650 million persons around the globe living with disabilities and about 80 percent of them live in developing countries where there are very few rehabilitation services. Further, according to WHO, 10% of the population of any developing country is estimated to be people with disabilities.

If the WHO disability estimate of ten percent (10%) is applied to indicate the scope of disability in Ethiopia, the figure will be as big as 7.3 million. But this figure has not been confirmed by the National Population and Housing Census conducted by the Central Statistics Authority (2007). Rather the census report indicated that there were 864,218 PwDs of which 464,202 are Male and 400, 016 Female. Out of the total PWDs, 31.18% have leg, hand and body movement difficulties, 28.77% seeing difficulties and total blindness, 19.74% hearing and speech difficulties, 4.8% people with intellectual disabilities, 6.8% persons with mental problem or illness, and 8.78% with other disabilities. The differences in understanding on the concept of disability, the stigma associated, and low level of awareness on disability might have influenced the then enumeration as a result of which the number of PwDs is suspected to be lesser than anticipated.

2.2. Major Factors Causing Disabilities

Malnutrition, prenatal, during and postnatal complications, injuries, traffic accidents, conflict, communicable diseases, harmful traditional practices, recurrent drought and famine, and other natural and manmade calamities are the major causes of disabilities.

Some of the physical, mental, sensory, and intellectual impairments can be caused before, during or after birth and might have been prevented if parents, care givers, and service providers had access to appropriate information.

The following are the major causes of disabilities in Ethiopia:

- **Poverty:** Due to poor nutrition, limitation to clean water, un- affordability of hygienic living condition and difficulty to accesses health services, people get disability. Poverty causes disability and disability aggravates poverty.
- **War:** Not only combatants get disability but civilians are also victims during and after war including land-mine and ordnance.
- **Accident**: The development of infrastructure, road traffic, construction and industrial accidents have been becoming the major causes of disability,
- **Lack of Health Care:** Lack of accesses for adequate primary health care and surgical treatments of injuries and accidents lead to disabilities,
- **Lack of Information:** Lack of adequate knowledge, awareness and information about disability; its causes, prevention and treatment,

- **Environmental Factor:** Disabilities are also caused by epidemics, natural disasters; toxic waste and other hazardous substances.

- **Ageing Process:** As a result of increasing health care coverage and improving in life style, longevity is increasing. As a result, the age-associated physiological changes like reduction of muscle bulk, blood volume, and bone mass and other conditions are the main causes of physical disability among older people.

- **Congenital Conditions:** There are many conditions that occur at birth which impair developmental physical movement. These include malformation, absence or dysfunction of one or more organs of the body. Prenatal chemical factors, mal development or injuries are some of them.

2.3. Disability and poverty

People with disabilities are among the poorest and most vulnerable social groups in developing countries including Ethiopia. They face many barriers preventing them from fully participating in society and are the most likely to face an increased risk of social exclusion. They can hardly obtain the access to education, medical, and Para-medical services, income earning activities or participation in decision making like other citizens.

Poverty can further exacerbate disability by increasing people's vulnerability to malnutrition, diseases, poor living and working conditions. People living in poor socio- economic condition are at greater risk of falling in illness, have little or no access to social amenities and finally prone to disability. The causes of disability are compounded by lack of financial and human resources, lack of assistive devices and negative attitude towards disability that frequently result in marginalization of people with disabilities. This in turn leads to a vicious circle of poverty and disability that labels people with disabilities among the poorest of the poor.

2.4. Physical Rehabilitation Services

Physical rehabilitation is one of the components that focus on the provision of assistive devices (prosthesis, orthosis, walking aids, and wheelchairs and the likes) and physiotherapy services with the final goal of enhancing mobility of people with disability. Enhancing mobility reduces restrictions on walking and engagement of people with disabilities in various socio- economic activities in society. It empowers people with disabilities to get better access to health care, education, employment opportunities, and work and enable them to fully participate in the social, economic and cultural practices in their communities. This in turn contributes to the improvement of quality of life of people with disabilities.

Physical rehabilitation service is a lifelong service. It is the assistance to people with disabilities to regain their mobility and maintain it for the rest of their lives. Therefore, providing, maintaining and improving quality physical rehabilitation service demands long term commitment as well.

The broader meaning of physical rehabilitation encompasses occupational therapy, speech therapy and rehabilitation medicine (neurology, orthopedic surgery etc). These need integration with prosthetic/ orthotic and physiotherapy services in order to provide efficient restoration of people with disabilities to their optimal capabilities.

2.4.1. The spatial distribution of prosthetics-orthotics and Physiotherapy centers

The physical rehabilitation services available in the country are very limited and concentrated in the urban centers. There are thirteen governmental and non-governmental physical rehabilitation centers with different levels of capacities. Due to their physical location, most of the service users face difficulties to reach the service providing centers. Particularly, the overwhelming people with disabilities living in rural areas can hardly access physical rehabilitation services.

Table-I:Existing Physical Rehabilitation Centers in the country

No.	Region	Center		Status
1	Tigray	1	Mekele	Non-governmental
2	Amhara	2	Bahirdar	Governmental
		3	Dessie	Governmental
3	Oromia	4	Assela	Governmental
		5	Jima	Governmental
4	SNNP	6	Awassa	Non-governmental
		7	Arbaminch	Non-governmental
5	Harari	8	Harar	Governmental
6	Diredawa	9	Diredawa	Non-governmental
7	Addis Ababa	10	POC	Non-governmental
		11	Menagesha	Non-governmental
		12	ALERT	Governmental
		13	Black Lion Hospital	Governmental

Prosthetic orthopedic appliances could be worn out or could become unfit for use after serving for sometime. Thus, they need periodic and timely repair and replacement. The existing physical rehabilitation centers are not adequate enough to deliver both the production and maintenance services for the devices due to their limited capacities compared to the demand.

Past experience in the Rehabilitation centers showed that at least 5% of PwDs need different types of physical rehabilitation supports.

Accordingly, the numbers of PwDs who approximately require assistive devices are computed as follows.

Table-II:Number of PwDs in need of prosthetics-orthotics and physiotherapy Services by region

No.	Region	Population	Number of PwDs	5% of PWDs requiring P&O and physiotherapy Services
1	Tigray	4,316,988	72,829	3641
2	Afar	1,390,273	10,426	521
3	Amhara	17,221,976	211,971	10,599
4	Oromia	26,993,933	303,583	15,179
5	Somali	4,445,219	25,332	1267
6	Benishangul-Gumuz	784,345	8951	448
7	SNNP	14,929,548	181,885	9094
8	Gambella	307,096	5005	250
9	Hareri	183,415	2149	107
10	Addis Ababa	2,739,551	36,940	1847
11	Dire Dawa	341,834	4383	219
12	Region 17	96,754	764	38
	Total	73,750,932	864,218	43,211

Source: - CSA (2007) National population and housing Report

This shows that there are about 43,211 who require prosthesis and orthopedic appliances. Orthopedic appliance is considered to serve on average for three years. This implies that the annual service

coverage should address 14,404 persons with disabilities while the current annual national production of devices is 5,976.

Table-III: Annual P&O devices production capacity of Physical Rehabilitation Centers

No.	Centers	Average monthly production				Average Annual Production
		Lower limb Prostheses	Upper limb Prostheses	Lower limb Orthoses	Upper limb Orthoses	
1	Mekele	31	-	29	-	720
2	Bahirdar	36	5	50		1092
3	Dessie	29	-	35		768
4	Assela	25	--	13		456
5	Awassa			27		324
6	Arbaminch	18		27		540
7	POC	20	5	30	65	1440
8	Menagesha	16		34		600
	Total	175	10	248	65	5976

Source:-Annual reports of the centers (2009)

This shows that the service coverage of the centers is 41.48% which is even less than a half of the demand.

2.4.2. Strengthening Human Resources for Rehabilitation Centers

The existing physical rehabilitation centers have no adequate skilled prosthetists and orthopedic technicians. Most of the services are delivered by Para-professionals and bench workers who have been working for long years but lack theoretical knowledge. This has significant effect on both the coverage and quantity of the service.

Table-IV: Existing Human Resource in Rehabilitation centers

No.	Centeres	Category-I (BSc. degree)	Category-II (Diploma level)	Category-III (Certificate)	Non-(professionals/ Up graded)
1	Mekele	-	4	2	2
2	Bahirdar	-	2	7	1
3	Dessie	-	4	4	2
4	Assela		3	6	
5	Awassa			1	1
6	Arbaminch		3	4	1
7	Addis Ababa-POC	1	6	9	3
8	Menagesha	-	4	5	2
9	Harar		3	4	2
10	Diredawa			2	
11	Jimma*		1	4	
	Total	1	30	48	14

Source:-Annual reports of the centers (2010)

Note:- *Does not produce Prosthesis and Orthosis Devices

According to standards including WHO, a Category I or Category II professional serves on average 250 beneficiaries in a year. In this case, about 60 Category I or Category II professionals are required to provide annual services to the anticipated 14,404 beneficiaries. However, the actual category-I and II professionals in the country are 31 that still shows the shortage of skilled man power in this regard. Thus, this situation pre supposes the need for expanding trainings at different levels and up-grading the existing staff to improve the coverage and quality of the service.

2.4.3. Quality of Physical Rehabilitation Services

Quality rehabilitation service refers to physical accessibility, affordability, fitness, comfort, durability, functionality and professional treatment. It also includes privacy, confidentiality of information, efficiency and effectiveness of production and delivery time, availability of maintenance and repair services, follow-up, collaboration and cost-benefit ratio. There should be a periodic and regular quality control system to measure the process and out come of the services through defined quality indicators.

At present, the quality control system practiced in the physical rehabilitation centers is not strong enough to ensure quality of products and services. It lacks defined minimum quality standards for services and products. Relevant information pertaining to length of treatment, number of visitors by the type of service users, cost of a particular device, repair needs, detail of failure and duration of a device may not be properly compiled and documented. In this regard, there is no reliable data that reveals how the rehabilitation centers are managing the quality of services and products they deliver to users.

2.4.4. Awareness about Physical Rehabilitation Services

Awareness about the importance and benefit of Physical Rehabilitation Services in general and prosthetic and orthopedic services in particular is limited among people with disabilities and the general public. This emanates from the fact that there is lack of awareness about the rights of people with disabilities. Since disability is frequently regarded as a “charity” issue, addressing the needs of persons with disabilities is not often considered as a priority. Families having persons with disabilities may have more pressing needs associated with direct survival and give less attention for prosthetic-orthotic and physiotherapy services. This is more serious when referred to the rural Ethiopia where more than 83% of the population lives.

3. Policy Framework Analysis

3.1. International Policy

The UN has been making several glorious human rights treaties. One of them is the UN Convention on the Rights of Persons with Disabilities (UNCRPD) that was adopted in March, 2007. It is the most recent and an integral part of the core human rights treaties.

Although existing human rights conventions offer considerable potential to promote and protect the rights of persons with disabilities, it became clear that this potential was not fully implemented. Persons

with disabilities were denied of their rights and were kept on the margins of society in many parts of the world. This continued discrimination against persons with disabilities highlighted the need to adopt a legally binding instrument which set out the legal obligations on States to promote and protect the rights.

The convention is unique in the sense that it is the first human rights convention of the 21st century and the first legally binding instrument with comprehensive protection of the rights of persons with disabilities. While the convention does not establish new human rights, it does set out much greater clarity on the obligations of States to promote, protect and ensure the rights of persons with disabilities. Thus, the convention not only clarifies that States should protect discrimination against persons with disabilities, but also sets out the many steps that States must take to create an enabling environment so that persons with disabilities can enjoy real equality of life in society. In this way, the convention goes too much greater depth than other human rights treaties in setting out the steps that States should take to prohibit discrimination and ensure inclusiveness of PwDs.

As part of all the development agendas of the Government of the Federal Democratic Republic of Ethiopia has ratified the Convention and the development of this strategy is one of the initiatives to fulfill the needs of PwDs.

3.2. Continental Policy

Different Continental and Regional Agreements have been made. One of such agreements is the "Continental Plan of Action for the African Decade of Persons with Disabilities (1999-2009)" proclaimed in July, 1999 in Algiers, Algeria. The Plan of Action was further extended for 10 years by AU Ministers in charge of Social development in Windhoek in 2008.

The major objectives of this Action Plan are:

- Formulate or reformulate policies and national programs that encourage the full participation of persons with disabilities in social and economic development,
- Support community- based service delivery in collaboration with international development agencies and organizations,
- Develop programs that alleviate poverty amongst PWDs and their families,
- Prevent disability by promoting peace and paying attention to other causes of disability,

3.3. National Policy

Years have passed since the classical meaning of development was changed from a mere economic growth, expressed in the form of Gross Domestic Product (GDP) or Gross National Product (GNP), to state of Social Welfare , Political participation and rational distribution of national wealth. In this regard, countries are said to be truly developed if they have enabling social policies and practices, full political participation of their citizens, noticeable good governance practices, and respect of human rights; irrespective of racial, ethnic, religious, sex, tribe or any other form of discrimination.

Thus, recognizing the rights of PwDs and creating enabling environment has immense economic and social benefits for PwDs themselves and a nation at large.

Realizing this fact, the Government of the Federal Democratic Republic of Ethiopa has made the rights of PwDs an integral part of its Constitution under Articles 25 and 41. Article 25 states that "All persons are equal before the law and are entitled without any discrimination to the equal protection of the law." And, Article 41 "The state shall within available means allocate resources to provide rehabilitation and assistances to persons with disabilities.

Based on this constitutional policy frame work, the government has adopted the Developmental Social Welfare Policy in November 1996, clearly stating the priority areas for PwDs to:

- Create conducive environment for the effective participation of persons with disabilities in the society,
- Provide formal education, training, and gain full employment opportunities, and
- Provide medical/health services and support appliances.

Moreover, for the effective implementation of the priority areas, the policy recognizes the creation of support mechanisms to provide the services.

The support mechanisms include;

- The establishment of special centers where persons with disabilities will be taken care of;
- Awareness raising to the public concerning the determinants and consequences of disability and combating discriminatory attitudes;
- Designing and implementing strategies and programs to prevent the prevalence of disability and mitigate its effects;

- Ensuring barrier free or physical access in residential areas, work place and elsewhere.
- Provision of support and assistance to community action group, non-governmental organizations and to voluntary associations engaged in the provision of services to PwDs.

The Ministry of Labor and Social Affairs has prepared 10 years National Plan of Action (NPA) for 2010-2020.

The objectives of the NPA are:

- Take measures to prevent disability and promote the participation of PwDs in communities
- Create enabling conditions for achieving a better standard of living by building their capacities
- Ensure the equal rights and full participation of PwDs in society.

Apart from government commitments in signing and ratifying declarations, developing policies and plans of actions in general to benefit PwDs, it has been realized that extra and special efforts will be made in the physical rehabilitation sector to address the needs of PwDs. Thus, the service requires well planned use of resources, coordination of efforts of both governmental and non-governmental organizations, clear and comprehensive strategy, monitoring and evaluation and proper data management in order to bring about meaningful results. Hence, this strategy is meant to help the level of services and meet the demand based on the favorable national policy frame work.

4. Thematic Issues of the Strategy

4.1 Strengthening and expansion of physical rehabilitation service centers

All of the 13 centers are situated in cities and towns that are not accessible for the majority of people living in rural areas that cover a vast geographical area of the country. Most of these centers were originally established to provide services for some target groups like leprosy patients, war victims

Small satellite prosthetics orthotics units could be established in strategic areas that can provide less complicated appliances and repairs as well as outreach services that may be backed-up by zonal level, while more complicated cases are to be referred to the regional and national levels. Satellite units can be integrated to hospitals or health centers.

In this regard, the Ministry of Labour and Social Affairs in collaboration with the Ministry of Health and the Ministry of Education will play its role to strengthen the physical rehabilitation service and its sustainability.

4.2 Need Assessment and Data Collection

In order to strengthen and expand the physical rehabilitation services across the country, adequate data are required to learn about the magnitude and concentration of persons with disabilities who are in need of the service. Data need to be collected through different sources. This includes, from governmental and nongovernmental organizations working in the areas of health, physical rehabilitation, and other social sectors. The other main data sources are Organizations of Persons with Disabilities (OPWDs) who have direct accesses to their members. Data can be collected at the following levels.

4.2.1 National level

At the national level, the Ministry of Labour and Social Affairs, in collaboration with the Ministry of Health, can develop standard data collection instruments and create data base to collect data from different levels. This includes pre service delivery data, post service delivery and follow up. The National Rehabilitation Centre of Addis Ababa University in the Medical Faculty can be appropriate institute to receive data from regional levels and analyze data for policy development, planning and monitoring. Furthermore, the periodic National Population and Housing Censes conducted by CSA could be taken as good opportunities to collect information about PwDs that depicts physical rehabilitation services.

4.2.2 Regional level

The Regional Bureaus of Labour and Social Affairs(BoLSA) using their structure down to grass root community level and including DPOs could be the major partners in data collection. Standard data collection formats and database developed at the national level could be used by all the regions. This facilitates relevant information and maintains uniformity. To materialize this, regional physical rehabilitation centers have to use the standard format and database of beneficiaries receiving services. The data gathered by the Physical Rehabilitation Centers should be transferred to the Regional BoLSAs and Regional Health Bureaus then have to be shared with the national level. If Regions gradually establish physical rehabilitation service delivery centers at zonal, woreda and even at kebele level,

beneficiary data should be collected at the zonal level and transferred to the appropriate Regional Physical Rehabilitation Centers.

4.3. Service Delivery

In order to develop appropriate and sound physical rehabilitation service delivery for PwDs scattered over big geographical areas in Ethiopia; a three-tired service delivery mechanism will be established. This structure is to be organized as National, Regional and Zonal/Woreda echelons.

4.3.1. National level

The national level will have four main responsibilities. These are policy making, networking, human resource development and providing specialised services. This requires a strong coordination and collaboration among MOLSA, MoH and MoE. Thus, MOLSA as a lead Ministry will build up its institutional capacity by organizing a strong structure.

Hence, the nucleus within MOLSA, the National Rehabilitation Centre of the Addis Ababa University Medical Faculty (MoH) and MoE will be fully responsible to carry out the above mentioned national level functions.

Multidisciplinary clinical team should be formed consisting of orthopaedic surgeons, physicians, prosthetist-orthotists, physiotherapists, occupational therapists and social workers.

It is to be noted that the clinical team will work under the supervision of someone who has a global knowledge of the rehabilitation process.

Types of specialised services at National Level

- **Prosthetic:** The National level rehabilitation centre is to provide full range of lower and upper limb prosthesis for multiple disabilities and congenital limb deficiency. This includes, hip pelcvectomy and hip disarticulation, four quarter and shoulder disarticulation, combination of one with other amputation of limp.
- **Orthotics:** The National level rehabilitation centre will provide full range of lower plus upper limb orthosis and spinal orthosis for non common complicated causes. This

includes bilateral hip knee ankle foot orthosis, shoulder elbow wrist orthosis and spinal orthosis.

- **Wheelchair:** The National level rehabilitation centre should provide specialized wheelchair service, including wheelchair adaptation, production of modular and moulded seat for children with complicated disability like spina-bifida and cerebral palsy.

- **Physiotherapy:** The National Rehabilitation Centre provides a full range of physiotherapy services, including gait training, treatment to increase range of motion, muscle strengthening, child development activities, serial casting and rehabilitation bracing, wheelchair training and other orthopaedic and neurological cases, etc.

- **Occupational Therapy**: The National Rehabilitation Centre should provide a full range of occupational therapy services for those received specialized prosthetics orthotics services as well as for orthopaedic and neurological patients, including environment adaptations, daily living aids, use of the devices at home, work place, at school, etc.

- **Psychological counselling:** The National Rehabilitation Centre should provide professional service of individuals and peer group psychological counselling during the physical rehabilitation process. This service is equally important to other services.

4.3.2. Regional level

The Regional level is where the actual service delivery is done. Regional Physical Rehabilitation Centers are responsible for the implementation of the policies, avail accessibility of services with quality, for training (supplementary skills, particular / specialized training in specific areas), etc.

To enable Regional Centres render services with full capacity and acceptable quality, they require upgraded and trained manpower, additional facilities to arrange new services, sustainable supply of inputs. Regions that have no physical rehabilitation centres or that have only one or few centres not proportional with the demand need new centres.

The Centres also need to have clinical teams that assess clients' rehabilitation need and prescribe the required services and conduct follow-ups. The clinical team will be multidisciplinary consisting of

prosthetist-orthotists, physiotherapists, occupational therapists and social workers and if possible orthopaedic surgeons who lead and supervise the team.

Types of services at Regional Level

- **Prosthetic:** Rehabilitation Centres provide a full range of prosthetic services, including lower limb prosthetics and less complicated upper limb prosthetics and repair services,

- **Orthotics:** The Centres provide full range of orthotics services, including lower limb orthotics, upper limb orthotics and less complicated spinal orthotics and repair services.

- **Wheelchair:** The Centres will assess wheelchair needs of clients and provide them, including modifications and repairs. But, it is preferable that wheelchairs are produced at one centre and distributed as per the needs.

- **Walking aids:** Rehabilitation Centres are expected to provide a full range of walking aids services including crutches, canes and walking frames and repair services. Walking aids can be produced at the Centres or produced somewhere else,

- **Physiotherapy:** Centres are provide physiotherapy services related to rehabilitation of disabilities , including gait training, treatment to increase range of motion, muscle strengthening and wheelchair training,

- **Occupational Therapy**: Rehabilitation Centres should provide occupational therapy services, including environment adaptations, daily living aids, use of the device at home, work places, schools, etc. Children, the elderly, and other family members need to be oriented to facilitate their reintegration in to the communities,

- **Psychological counselling:** Centres also provide individual peer group psychological counselling during the physical rehabilitation process. In addition, the peer group physiotherapists can be trained to organize this service,

4.3.3. Zonal/ Woreda Level

At zonal level, the services of the Centres have to be parts of health setups and provide basic physical rehabilitation services for less complicated cases. Currently, there are no services giving centres at zonal levels. Once Regional Centres are organized and functional with full capacity, it will be necessary to establish zonal centers based on the physical rehabilitation service need and are expected to provide the following services,

Types of services at Zonal/Woreda Level

- **Prosthetic:** is to provide basic lower limb prosthetic services, and full range repair services,
- **Orthotics:** is to provide basic lower limb orthotics services, and full range repair services,
- **Wheelchair:** is to assess clients wheelchair needs and provide wheelchair service, including wheelchair modifications and repair. Preferably wheelchair will be produced centrally for different type of disabilities,
- **Walking aids**: Zonal Centres are to provide a commonly used walking aids services including crutches, canes and walking frames and repair services. These walking aids can be supplied by the regional rehabilitation centres,
- **Physiotherapy:** Zonal/Woreda Centres will provide basic physiotherapy services, including gait training, treatment to increase range of motion, muscle strengthening and wheelchair training,
- **Occupational Therapy:** Zonal/Woreda Centres will provide basic occupational therapy services specific to client need including daily living aids, use of the device at home, work place, school, etc. Children, the elderly, and the family members have to be oriented to facilitate their reintegration in to the communities,
- **Psychological counselling**: Rehabilitation Centres should provide individual peer group psychological counselling during the physical rehabilitation process. In addition, the peer group physiotherapists and community rehabilitation workers can be trained to organize this service.

4.4. Service Accessibility

More than 83% of the total population of the country lives in rural areas where proportionately a significant number of PwDs in need of physical rehabilitation services also live. On the contrary, the few physical rehabilitation centers are situated in the urban areas that they are less accessible them. To address then need, short and long term action is required.

4.4.1 Short Term

The Ministry of Labour and Social Affairs and Ministry of Health with their respective Regional Bureaus will work on the following short term solutions:

- Make existing centers functional with full capacity to give services with maximum efficiency,
- Establish at least a rehabilitation center with hospital setups in Regions that do not have,
- Improve the durability of orthopaedic appliances to reduce frequency of travel of beneficiaries to the centers,
- Establish effective screening and referral system using community level structure so that clients can receive timely treatments,
- Provide transport and accommodation services for those very poor could not affordable service costs,
- Organize mobile workshops as part of regional physical rehabilitation centers.

4.4.2. Long Term

MOLSA and the MoH are the major responsible bodies for further development of the physical rehabilitation services based on the national need.

Some of the roles are:

- Assess the physical rehabilitation service need and defining service standard at different levels,
- Establish additional centres at different levels ,
- Encourage private technical orthopaedic practice

- Ensure accessibility of rehabilitation services at all levels.
- Conduct researches on issues related with PWDs, and technology build up and transfer,
- Capacity building in human resource development.

4.5. Human Resource Development

4.5.1. Training

Appropriate training of personnel who will be assigned in physical rehabilitation services is a core component of a National Physical Rehabilitation Strategy. Training should be understood in its widest sense and should include general training, further training and in-service training, specialized training, retraining and re-orientation.

Taking into consideration the short and long term service upgrading and expansion plan, more trained manpower is required in the field of prosthetics orthotics, physiotherapy and occupational therapy. As indicated above on the situational analysis, there are only few orthopaedic technicians and nearly no occupational therapists. In order to change this situation, the Ministry of labour and Social Affairs, Ministry of Health and Ministry of Education will work together on short and long term solutions.

4.5.1.1. Short Term

Following service upgrading and expansion plan the short term strategy of human resource development should be geared to the following,

- Implement the under process orthopaedic technicians training program at TVET level to satisfy the short term needs.
- Upgrade the quality of physiotherapy training so that physical rehabilitation gets the required attention,
- Organize ad-hock training program(S) on occupational therapy,
- Organize upgrading training for existing physical rehabilitation staff.

4.5.1.2. Long Term

The long term human resource development will depend on the national service delivery need that is going to be planed parallel to the service delivery development from zonal to national level as discussed earlier.

To achieve this objective, the following major actions will be considered,

- Organize national school that gives training in prosthetics orthotics and orthopaedic footwear at TEVET level III, IV and V,
- Start prosthetics-orthotics degree program at Medical College where it is appropriate,
- Organize regular training program in occupational therapy,
- Introduce research program within national physical rehabilitation and teaching facility and organize upgrading program.

4.5.2. Development of Motivational Mechanism

One of the major factors for a high turnover of skilled manpower is the absence or low level of motivation factors. To retain and attract the skilled manpower, and to provide the required services, acceptable motivation factors will be put in place.

Therefore, elements of motivation for persons who work in the centers will be identified. Standards will be set and continuous Monitoring and Evaluation will be carried out.

4.5.3. Development of Manpower Administration Procedure

The other important factor for manpower development and management, parallel with training and motivation, is administering the human capital in a defined, consistent and transparent manner.

This could be achieved through developing and instituting a manpower development and management policy and procedure. This procedure is required to facilitate conditions for employees, at different levels, know their duties and responsibilities, and exercise authority so that there could be no bottle necks in the absence of a manager or an expert.

4.6. Referral System

The referral of PwDs on physical rehabilitation (POC) can be done through different channels in close collaboration with the health care system. The appropriate referral channel will be the health structure starting from the lowest community level. In addition, there will be a referral system within the physical rehabilitation service delivery; starting from zonal to the national specialized service delivery setups.

In this regard, health professionals involved in referring clients and patients will be educated in identifying physical rehabilitation needs and communications. Furthermore, standard referral manuals have to be developed.

4.7. Networking

A strong and networking will be created and strengthened between all relevant ministries, service providers, and OPWDs to bring all efforts together for a common goal. The network, hopefully will play an important role in the rehabilitation services since all stakeholders will meet together and discuss about the service provisions (socio-economic, technical aids, education, medical, vocational training, etc.).

In addition, a link among Zonal, Regional and National Rehabilitation Centres will be established in order to share experiences and lessons gained that will in turn help for policy and strategy development.

4.8. Awareness Raising

In Ethiopia, the greatest hurdles PwDs face when trying to access mainstream programs are negative attitudes. Such attitudes lead to them to social exclusion and marginalization. PwDs are seen by many as helpless, dependents, ill and inconstant needs of care and medical treatments, while the reality is to the contrary.

Apart from this, the importance of physical rehabilitation in facilitating and promoting the equal opportunities of PwDs is not very well understood by many actors. Thus, teaching and awareness raising to rectify the wrong perception of society on PwDs the importance of physical rehabilitation is an important instrument.

Thus, the following areas warrant attention:

- The media will be utilized to change the attitude of communities
- Create every mechanism that concerned bodies to mainstream the issues of PwDs in their plans,
- Integrate physical rehabilitation issues with medical and para medical education program,
- Develop national website where all rehabilitation services and other information can be posted,
- Organize annual physical rehabilitation exhibition and seminars.

4.9. Service Delivery Guidelines

The physical rehabilitation service at all levels is expected to be client centered, ethical. An appropriate code of ethical behavior is an essential mode of operation in the service provision that will be applied by the professionals.

The physical rehabilitation service delivery arrangement will be client friendly in all aspects. This includes accessibility of infrastructure, information, transport and efficient service delivery system.

Financing of services for PwDs and patients to be treated in physical rehabilitation centers will be similar with that of general patients' treatments in other health services. Thus, financing of physical rehabilitation services will follow health care financing strategy.

4.10. Quality Management

Quality of physical rehabilitation is the compliance of the actual care provided with the standards established. The standards will be driven from the current technological development, knowledge and internationally accepted principles and practices as well as from the goals of the rehabilitation. The objective is to reintegrate PwDs to their normal position in life that is measured by independent life, community participation and working after disruption.

Rehabilitation requires a multidisciplinary team approach in which clients and their families are active participants.

The quality of physical rehabilitation service may be affected by:

- Interaction between multidisciplinary team members, effectiveness of interdisciplinary teamwork and rehabilitation goal settings,
- The extent to which the attitude, knowledge and skills to participate actively in physical rehabilitation, the motivation to put in place, and the conduciveness of working environment;
- The feedback mechanism and measurement of outcome against the goals to be set,
- The appropriateness of technology to be applied and inputs to be used.

To lift the existing physical rehabilitation service of Ethiopia to a higher standard, the following actions will be taken:

- Define minimum standards for the physical rehabilitation,
- Develop quality assurance guidelines and checklists,
- Review the quality of physical rehabilitation professionals trainings,
- Revise career structure of physical rehabilitation professionals and develop motivation schemes,
- Define the technology to be applied with due consideration of affordability and sustainability,
- Develop collaboration with Addis Ababa Technology Faculty, Ministry of Science and Technology and the Industry to facilitate research and technological adaptation,
- Organize technical team at the National level with consideration of quality service.

4.11. Technology and Material Aspect

With regards to the production of prosthetics orthotics appliances, the use of locally available materials and locally produced components ensures the sustainability of the services and reduce costs. Materials not available in the local market will be imported and distributed to the service providers.

Production of local prosthetics orthotics components requires careful attention and encouragement by authorities and donors. The long year experience of local component production in some centers

will be a great help for further developments. Technology transfer, design development, standardization of mass production requires collaboration among service delivery institutions, universities and local industries.

Responsible technical body will be established at the national level to work on the physical rehabilitation quality assurance where potential stakeholders, local and international partners will be included.

5. Collaboration and Coordination

To provide effective and efficient physical rehabilitation services, it is imperative to work jointly with pertinent partners and stakeholders on services, associated duties and responsibilities such as awareness raising, screening, referral, mainstreaming, inclusion, follow-up, monitoring and evaluation. Collaboration and coordination is significant to protect and promote the overall rights of persons with disabilities with eventual goal of ensuring their equalization of opportunities and full participation.

Thus, there will be a close collaboration and cooperation with a wide range of partners and stakeholders, beneficiaries, line Ministries, BoLSAs, Associations of PwDs, local authorities, volunteers, non-governmental organizations, and civil society organizations. The joint effort with hospitals has paramount importance especially in giving referral services for physical rehabilitation services by doctors.

The collaboration and coordination includes, though not limited to:

- Identify efficient means of operation for referral services(such as medical and surgery services at hospital, physiotherapy services),
- Strengthen cooperation with pertinent partners who could provide support for scaling-up the services(such as social workers, CBR, Psycho- social services, community asset, volunteers, relevant bodies and civil societies)

The physical rehabilitation centers will collaborate with relevant networks at national, regional, zonal, woreda and kebele levels to promote the development of overall rehabilitation services on a wider scale.

In general, Collaboration and coordination among the different layers of MoLSA, MoH, MoE, POCs and other stakeholders is critically important to provide adequate and quality services.

6. Monitoring and Evaluation

Provision of physical rehabilitation is not a onetime service. It requires maintenance, periodic adjustments, repair and renewal. Therefore, follow-up and evaluation system will be in place to ensure provision is going according to plans. Thus, there will be periodic monitoring and evaluation to be carried out. In line with this, formats will be developed to collect information in a uniform manner and database will be created.

The Monitoring and Evaluation will serve as a vital instrument to gather valuable information not only to improve the physical rehabilitation services but also to use the information for further inference in policy formulation. Evaluations could be done by a team or joint mission consisting members from all pertinent partners involved in physical rehabilitation services.

Ministry of Labour and Social Affairs

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