Upgrading Community-Based Rehabilitation through the Linkage of Health and Social Welfare Services: Healthy Cities for People with Disabilities

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1. Background of CBR

1) The Importance of CBR

The number of people with disabilities is increasing. War injuries, landmines, HIV/AIDS, malnutrition, chronic diseases, substance abuse, accidents and environmental damage, population growth, and medical advances that preserve and prolong life all contribute to this increase. These trends are creating an overwhelming demand for health and rehabilitation services. (WHO, 2005)

Rehabilitation is defined as the recovery of handicapped people's functional abilities to the highest degree through comprehensive medical, social, educational, and vocational training.

One of the traditional rehabilitation methods, institution-based rehabilitation (IBR), fulfills only 2-3% of rehabilitation demand despite its high cost. Institution-based rehabilitation serves as an important medical system for special examination, surgical treatment, and other special treatments. However, it focuses only on individual disabilities without paying attention to their families or local communities. The biggest disadvantages include high cost, poor accessibility to rehabilitation facilities, and lack of qualified manpower (WHO, 1994). To overcome these limits, the WHO adopted Community-Based Rehabilitation (CBR) as a new rehabilitation method.

Only about 10% of treatment for the disabled requires the help of rehabilitation specialists. 20% of cases can be dealt with by ordinary experts and the other 70% can be solved by the patient themselves, by their families, and by their communities, according to one report (Yoon, 2003).

Early discovery of disability, a strong will for rehabilitation, bedsore treatment, urine and feces disposal, improving the house layout, and simple treatments are included in the treatment needs for the disabled. CBR, rather than IBR, is better suited to meet those needs since CBR utilizes the manpower of people with disabilities, their families, and the local community. (WHO, 1995, Yoon, 2003)

The involvement of the local community is stressed not only because of its easy accessibility, efficiency and effectiveness. It is important that the local community be able to accept people with disabilities as its members and provide them with medical services, and that ultimately both the community and the disabled can become responsible for each other. In other words, the community will be able to take rehabilitation efforts more seriously and people with disabilities will also be able to find their places in the community (Kim, 2003). It is very important to normalize their membership in the community. CBR can be seen as a strategy and philosophy related to rehabilitation. CBR is a multi-sector strategy, fully supported by the WHO, aimed at improving the lives of the disabled. The widely supported strategy has been in place for more than twenty years and is being implemented by Member States and other UN Agencies (WHO, 2003). CBR is a strategy for giving equal rehabilitation services to people with disabilities, thereby helping to achieve social unity. CBR is implemented through concerted efforts in health, educational, vocational and social services made by the disabled, their families, communities, health organizations, relevant government agencies, and NGOs. (WHO, 2004) In short, CBR requires collaboration between the educational, employment, construction, transportation as well as health and social welfare services sectors.

2) CBR in Korea

Most people with disabilities have low incomes and rely on public medical services, so the public medical sectors need to play a leading role in effectively handling rehabilitation programs.

In Korea, the CBR was first implemented in 1985 as a pilot program by the Korea Society for Rehabilitation of the Disabled. Since 1993, the National Rehabilitation Center has offered written materials about CBR for public health centers in Seoul and Kyong-gi Province and conducted on-site guidance. (Byun et al., 2001b)

Since 2000, the organization has designated 16 health centers as CBR test beds and helped them carry out CBR model projects. These centers are divided into metropolitan, urban-rural, and rural models depending on their location. As to the organization and workforce, the metropolitan model consists of 1-3 departments with 3-10 units, with emphasis on family health and health promotion units for executing rehabilitation programs. The structure of urban-rural models varies in size, with some having two departments of 6-7 units while others have just three units. A rural model consists of 3-5 units with an average of 7.8 personnel including doctors, nurses and physical therapists.

A survey carried out among people with disabilities residing near a certain health center found that what they wanted most were medical aid, help in daily living, rehabilitation, assistance when going out, and handicap-friendly housing renovations, in that order.

Major programs include health promotion projects, family support programs, programs for the participation of the disabled in society, local community networking projects, and education and public education programs on rehabilitation. The evaluation of public health center-led CBR revealed that there was a lack of participation on the part of people with disabilities, a lack in their awareness of rehabilitation, and a dearth of cooperation and community participation.

Yoon's proposal for successful operation of CBR projects is as follows. Comprehensive rehabilitation services including medical, vocational, educational and social rehabilitation programs should be operated in line with social development programs in the local community. As the needs of people with disabilities become more varied, local public health centers must provide various rehabilitation services in cooperation with other organizations in the community. In addition, proper assignment of rehabilitation personnel and better working condition are needed for the success of the program.

Health departments in local universities, health research centers, health and welfare centers, and community centers should work together to develop life guidebooks and instructional materials that accommodate the situation of the locality as well as cultivating available human resources by educating local residents.

A local community should consider the convenience of people with disabilities in all local places to guarantee ease of access to facilities and information.

3) CBR in Jejudo

In Jejudo, CBR programs focusing on community-led rehabilitation were implemented after the Jejudo Community Rehabilitation Center investigated the actual conditions of the disabled for five years from 1992. The first stage was to designate Hallim-eup, Bukjeju-gun (North Jeju County) as a rural model and extend the program into the neighboring villages. The second stage was to run a city model in Ildo 2dong, Jeju City, and the third stage was to spread into neighboring areas and provide follow-up guidance. The details of the presentation made by Kim (2000) in a workshop on CBR are summarized as follows.

The objective of the program is encouraging the local government and its residents to pay attention to people with disabilities and rehabilitation through local networks,

ultimately achieving social consolidation under which people with disabilities can live together with others as residents in the community.

Detailed programs are classified into five areas:

(1) General services offer assistance to families of the disabilities by dispatching volunteers, who assist the handicapped in going out, getting hair cuts, bathing, tutoring, and checking out books.

(2) The Jejudo Community Rehabilitation Center team including doctors, therapists and social workers provides special services including rounds of visits, mental status check-ups, ability evaluation, rehabilitation and family consultation, vocational consultation, and programs to reinforce functions of the family.

(3) Cooperative services provide free medicine and medical examinations, special education, vocational training, as well as consultation on sponsors, volunteers, clinics, instructional tools, and free beauty and cosmetic services in cooperation with governmental offices, free clinics, special schools, and barbershops or beauty shops.

(4) Cooperative projects between local communities are for educating residents, helping them understand the situation of people with disabilities, and for attracting the attention of residents. The projects include the organization and management of disabled people support groups, dialogues between rehabilitation-related organizations, outings for people with disabilities, training of rehabilitation specialists, education on disabilities and related precautions, recruiting and education of volunteers, and exchange of ideas between volunteers.

(5) Research and development includes surveys about the needs of the disabled, encouragement for their registration with local health centers, case studies, evaluation, business promotion, and publication of reports on CBR.

These programs and services are for people with disabilities who are social security recipients or from low-income families who are competent enough to receive vocational training, for children who are in special education programs, and for ordinary but slightly retarded children in kindergarten. The programs also cover those people with disabilities whose severity grade should be reviewed because their condition has worsened. In particular, those who need a doctor's visit or people with severe

disabilities (grade 1 or 2) are put at the top of the list.

The effects of the business can be summarized as follows.

(1) The Support Council for the Disabled took root in the local community as a local organization actively trying to solve the problems handicapped residents face due to a lack of expert advice.

(2) It established itself as a leading player in the welfare of citizens with disabilities.

(3) Local authorities and residents are showing full support and participate actively and voluntarily.

(4) The existing welfare support network is combined with a service delivery system so that services are offered in a systematic and dynamic way in cooperation with local organizations.

(5) Persons with disabilities staying at home must show their will and make efforts to cope with difficulties for themselves to enjoy a sense of community.

(6) Volunteers have an opportunity to understand people with disabilities and other under-privileged people through volunteer services. They learn to cherish their family and themselves. Moreover, the number of volunteers is increasing within the community.

(7) Understanding and awareness of the disabled are spreading throughout the community thanks to CBR.

However, there are negative aspects of CBR projects. They are as follows.

(1) There are limits in aggressively and flexibly meeting the various needs of the disabled since only a few personnel, in most cases, conduct many different programs.

(2) While cooperation with local administrative offices went smoothly, public health centers and health sub-centers failed to cooperate with each other.

(3) Many religious organizations also carried out programs to help people with disabilities, but they failed to screen out double beneficiaries ("double-dipping").

(4) The CBR program shifted to a metropolitan model at Ildo 2dong in contrast to rural areas where the program was implemented just for one year and five months. The period was not sufficient for carrying out more varied or specific programs.

(5) Residents in the Eup, Myeon or Dong districts showed their interest in the

programs, but there were many indifferent villages. As a result, an aggressive strategy for promoting CBR is essential.

2. Basic Information on Jeju-do

1) About Jeju-do

Jeju-do floats on the southwest waters of the Korean Peninsula, and is composed of two cities and two counties. Its area is 1847.78Km^2, accounting for 1.8% of the nation. Its population is 552,297 and its mainstays are tangerine farming and tourism.

2) The Current Situation of the Registered Handicapped in Jeju

As of 2005, 3.7% of the population of Jeju-do is registered as disabled. The population of people with disabilities in Jeju-do is on the rise: 8,816 in 1999 (1.6%), 13,794 in 2001 (2.5%), 17,829 in 2003 (3.2%) and 19,809 in 2004 (3.5%). This does not mean that the absolute number of people with disabilities has risen; rather it means more disabled people are registering thanks to the extended classification of disabilities stipulated in a disability service act(Table 1).

According to Korea's classification of disabilities, there were five types in 1995; physical, visual, hearing, language, and mental disability. In 2000, five other types were added; Brain disorder, development disorder, mental disorder, heart failure, and kidney failure. In 2003 epilepsy, respiratory failure, liver failure, facial deformity, and ostomy were included, bringing the total to 15. Under such circumstances, the number of people with disabilities has increased at a rapid rate since 1999, up to 3.2 % in 2003. At present

it is about 3.7%, which is lower than the national average.

Despite Korea's extension of the classification of disabilities, the classification is still restricted within narrow limits. In Korea, the definition of disabilities is focused on impairments, yet there was no policy for other disabilities or social handicaps.

Even though the range of disabilities has been extended, persons with disabilities could not benefit from social welfare unless they were registered as disabled. Thus, it is very significant in a political as well as academic sense to identify and locate people with disabilities.

The World Health Organization estimates that approximately 10% of the world population is disabled. (WHO, 2002) In the year 2000, Korea had about 1.45 million people with disabilities, 3.09% of its population. (KIHASA, 2001) The number increased by 38% from 1.5 million in 1995 when neural, developmental, and mental disorders as well as heart and kidney failure were not included in the types of disabilities.

However, compared with 18.0% of Australians in 1993, 17.2% of Americans in 1991, 14.2% of Britons in 1987, and 4.8% of Japanese in 1995, Korea's handicapped rate is considerably lower even after considering the smaller elderly population in Korea. It might not sound reasonable to compare with other countries since the classifications are different. However, the figures imply that many Koreans with disabilities remain neglected.

According to the 2000 survey of people with disabilities in Korea, 62.6% of disabled people were registered. (KIHASA, 2001) Considering the fact that Korea's classification of disabilities is narrow, it is predicted that there are more people with disabilities than is reflected in the statistics.

Table 1 : Transition of Population with Disabilities in Jeju-do

Year	Population of Jeju	Population of people with disabilities	Rate of people with disabilities
1999	539,393	8,816	1.63
2000	543,323	11,764	2.17
2001	542,368	13,794	2.54
2002	547,964	15,764	2.88
2003	553,864	17,829	3.22
2004	552,717	19,809	3.58

Source: Jeju Provincial Government (2005a). "The Current Situation of Welfare Policy for people with disabilities in Jeju-do", JPG's internal data, Unpublished.

3) The Current Situation of Facilities for the Disabled

Among people with disabilities in Jeju-do, only 0.8% have been admitted to welfare facilities while the other 99.2% stay at home(Jeju Provincial Government, 2005)(Table 2).

According to a survey on the situation of the disabled conducted in 2000, people with disabilities accounted for 3.09% of the entire population of Korea. Among those with disabilities, 96.5%, or 1.398 million people, live in local communities and merely 3.5%, or 51,000 live at welfare facilities. (KIHASA, 2001) Jeju-do has a higher rate of people with disabilities living at home than in other regions of Korea.

Table 2 : Current Status of Use of Facilities for People with Disabilities

Classification	Jeju-do in 2004			Korea in 2000		
	Total	Staying at home	Housed in facilities	Total (in 000s)	Staying at home (in 000s)	Housed in facilities (in 000s)
The number of people with disabilities	19,809	19,641	168	1,449.5	1,398.2	51.3
Proportion	100	99.2	0.8	100.0	96.5	3.5
Prevalence	3.58	3.55	-	3.09	2.98	-

Source: Jeju Provincial Government (2005a). "The Current Situation of Welfare Policy for people with disabilities in Jeju-do". For Internal Use, Unpublished.
KIHASA(2001). 2000 Survey on the Situation of people with disabilities. Korea Institute for Health and Social Affairs

4) Distribution of Jeju Residents with disabilities

Looking into the distribution the handicapped in Jeju-do according to gender and disability type, people with physical disabilities comprise 10,145 (49.58% of the total number of 20,463) persons, followed by 2,881 visually impaired people (14.08%), 1,873 mentally retarded people (9.15%), 1,807 people with hearing disabilities (8.83%) and 1,802 people with brain disorders (8.81%), in decreasing order(Table 3).

Males make up 59.34% of the entire disabled population. Among people with developmental disorders, males account for 89.42%, much higher than females.

In the case of respiratory disorder, the proportion of males is also higher.

In contrast, the only disorder in which females have a higher incidence of occurrence is epilepsy, with females accounting for 61.7% of the total.

In Korea, lower disability grades (e.g. grades 1 and 2) denote greater severity of disability. The distribution of Jeju residents with disabilities according to type and grade of disabilities show that people with physical disabilities and brain or developmental disorders tend to get relatively serious disability grades. In the case of physical disabilities, getting Grade 1 is quite rare, but getting Grade 2 is fairly frequent, more than three out of four cases. The types of disabilities that are very likely to be classified as Grades 1-3 are mental disorder, respiratory disorder, and liver failure. This is in contrast to facial deformity, ostomy or urostomy, retardation, and hearing disability, which are unlikely to be classified under Grades 1-3(Table 4).

Table 3 : Distribution of Jeju Residents with Disabilities According to Gender and Disability Type

Disability Type/Gender	Male		Female		Total	
	Frequency (N)	%	Frequency (N)	%	Frequency (N)	%
Physical Disability	6,329	62.39	3,816	37.61	10,145	49.58
Brain disorder	988	54.83	814	45.17	1,802	8.81
visual impairment	1,658	57.55	1,223	42.45	2,881	14.08
hearing impairment	939	51.96	868	48.04	1,807	8.83
language disability	137	77.84	39	22.16	176	0.86
mental retardation	1,055	56.33	818	43.67	1,873	9.15
developmental disorder	93	89.42	11	10.58	104	0.51
mental disability	355	56.08	278	43.92	633	3.09
kidney failure	262	55.04	214	44.96	476	2.33
heart failure	104	59.77	70	40.23	174	0.85
respiratory failure	92	71.32	37	28.68	129	0.63
liver failure	35	68.63	16	31.37	51	0.25
facial deformity	9	69.23	4	30.77	13	0.06
Ostomy	44	51.16	42	48.84	86	0.42
Epilepsy	43	38.05	70	61.95	113	0.55
Total	12,143	59.34	8,320	40.66	20,463	100.00

Source: Jeju Provincial Government (2005b). "The Current Situation of registered people with disabilities in Jeju-do", JPG's internal data

The prevalence of disabilities in Korea tends to become higher with age. It rapidly rises from the age of 45 and reaches 11.38% of the general population at age 70 or older. Males of all ages show a higher rate of incidence than their female counterparts. The proportion of male disabled people against the entire male population is 3.86%, while that of females against the overall female population is 2.34%(Table 5).

Table 4 : Distribution of Jeju Residents with Disabilities according to Type and Grade of Disabilities

Type/Grade	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Total
Physical Disability	551 (5.43)	1,034 (10.19)	1,814 (17.88)	2,007 (19.78)	2,396 (23.62)	2,343 (23.10)	10,145 (100.00)
Brain disorder	620 (34.41)	510 (28.30)	354 (19.64)	141 (7.82)	106 (5.88)	71 (3.94)	1,802 (100.00)
visual impairment	535 (18.57)	113 (3.92)	180 (6.25)	124 (4.30)	208 (7.22)	1,721 (59.74)	2,881 (100.00)
hearing impairment	75 (4.15)	462 (25.57)	300 (16.60)	365 (20.20)	264 (14.61)	341 (18.87)	1,807 (100.00)
language disability	12 (6.82)	19 (10.80)	63 (35.80)	82 (46.59)	- (0.00)	- (0.00)	176 (100.00)
mental retardation	645 (34.44)	675 (36.04)	553 (29.52)	- (0.00)	- (0.00)	- (0.00)	1,873 (100.00)
development disorder	34 (32.69)	39 (37.50)	31 (29.81)	- (0.00)	- (0.00)	- (0.00)	104 (100.00)
mental disability	78 (12.32)	215 (33.97)	340 (53.71)	- (0.00)	- (0.00)	- (0.00)	633 (100.00)
kidney failure	28 (5.88)	366 (76.89)	- (0.00)	2 (0.42)	80 (16.81)	- (0.00)	476 (100.00)
heart failure	8 (4.60)	41 (23.56)	124 (71.26)	- (0.00)	1 (0.57)	- (0.00)	174 (100.00)
respiratory failure	34 (26.36)	32 (24.81)	63 (48.84)	- (0.00)	- (0.00)	- (0.00)	129 (100.00)
liver failure	11 (21.57)	14 (27.45)	11 (21.57)	- (0.00)	15 (29.41)	- (0.00)	51 (100.00)
face deformity	- (0.00)	1 (7.69)	7 (53.85)	- (0.00)	5 (38.46)	- (0.00)	13 (100.00)
Ostomy / Urostomy	- (0.00)	2 (2.33)	6 (6.98)	42 (48.84)	36 (41.86)	- (0.00)	86 (100.00)
epilepsy	2 (1.77)	9 (7.96)	42 (37.17)	60 (53.10)	- (0.00)	- (0.00)	113 (100.00)
Total	2,633	3,532	3,888	2,823	3,111	4,476	20,463

Source: Jeju Provincial Government (2005b). The Current Situation of registered people with disabilities in Jeju-do (As of March 31, 2005). JPG's internal data

In particular, old people over 65 show significant differences in disability rates between the two genders. 12.79% of males aged 65~ 69 are disabled, while 7.19% of females in that age group have disabilities. Among people aged 70 or older, 16.77% of men and 10.63% of females are estimated to have disabilities. (KIHASA, 2001)

Table 5 : Prevalence and Estimate of Disabilities according to Gender and Age (unit: %, number)

Age Range	Female		Male		Total	
	Prevalence	Estimate	Prevalence	Estimate	Prevalence	Estimate
0-4	0.31	4,671	0.36	6,254	0.33	10,925
5-9	0.67	11,639	1.00	19,286	0.84	30,925
10-14	0.50	8,230	1.06	19,344	0.80	27,574
15-19	0.67	11,959	1.26	23,286	0.97	35,245
20-24	0.77	13,207	2.15	26,954	1.36	40,161
25-29	0.74	15,516	2.07	40,553	1.39	56,069
30-34	1.30	26,525	2.72	55,676	2.01	82,201
35-39	1.70	38,115	3.30	72,784	2.49	110,899
40-44	1.94	39,639	4.16	88,894	3.07	128,533
45-49	2.40	34,472	5.19	79,572	3.84	114,044
50-54	3.04	35,971	6.28	75,977	4.68	111,948
55-59	3.95	43,134	7.86	83,375	5.88	126,509
60-64	5.45	53,562	9.98	87,863	7.59	141,425
65-69	7.19	62,164	12.79	80,519	9.55	142,683
Above 70	10.63	160,259	16.77	130,093	11.38	290,352
Total	2.34	559,064	3.86	890,430	3.09	1,449,494

Sources: KIHASA (2001). "Year 2000 Survey on the Current Situation of People with Disabilities", Korea Institute of Health and Social Affairs.

Table 6 shows the distribution of people with disabilities according to their age. Most cases of developmental disorder appeared in the age bracket of 0-24. Mentally retarded people below the age of 24 account for 43.35% of the disabled population and those aged 25- 44 make up 37.69%. In contrast, brain disability is more common in elderly people aged 65 or older and aged 45 – 64, making up 47.74% and 33.54% of the disabled in those age brackets, respectively. The situation of visual and hearing impairment is similar; such handicaps represent more than 70% of all handicaps in the over-45 age group. Many of the disabilities related to kidney failure, heart failure, respiratory failure, liver failure, ostomy and urostomy also occur in the elderly.

Table 6 : Current Situation of People with Disabilities according to Age

Disability Type	Aged 0~24	25~44	45~64	Over 65	Total
Physical Disability	328 (3.17)	3273 (31.61)	4143 (40.02)	2609 (25.20)	10353 (100.00)
Brain disorder	166 (8.63)	194 (10.09)	645 (33.54)	918 (47.74)	1923 (100.00)
Visual impairment	141 (4.63)	632 (20.77)	1161 (38.15)	1109 (36.44)	3043 (100.00)
Hearing impairment	78 (4.15)	328 (17.46)	650 (34.59)	823 (43.80)	1879 (100.00)
Language disability	19 (10.27)	57 (30.81)	56 (30.27)	53 (28.65)	185 (100.00)
Mental retardation	835 (43.35)	726 (37.69)	307 (15.94)	58 (3.01)	1926 (100.00)
Developmental disorder	113 (99.12)	1 (0.88)	0 (0)	0 (0)	114 (100.00)
Mental disability	20 (2.82)	427 (60.23)	233 (32.86)	29 (4.09)	709 (100.00)
Kidney failure	10 (1.99)	160 (31.87)	236 (47.01)	96 (19.12)	502 (100.00)
Heart failure	20 (10.42)	20 (10.42)	83 (43.23)	69 (35.94)	192 (100.00)
Respiratory failure	1 (0.79)	12 (9.52)	75 (59.92)	38 (30.16)	126 (100.00)
Liver failure	3 (4.55)	13 (19.70)	42 (63.64)	8 (12.12)	66 (100.00)
Facial deformity	4 (30.77)	3 (23.08)	6 (46.15)	0 (0)	13 (100.00)
Ostomy/ Urostomy	2 (2.17)	9 (9.78)	49 (53.26)	32 (34.78)	92 (100.00)
Epilepsy	12 (9.92)	66 (54.55)	38 (31.40)	5 (4.13)	121 (100.00)
Total	1752 (8.25)	5921 (27.87)	7724 (36.36)	5847 (27.52)	21244 (100.00)

Source: Jeju Provincial Government (2005c). "The Current Situation of registered people with disabilities in Jeju-do" (As of August 1, 2005). JPG's internal data

5) Causes of Disabilities

The survey on the current situation of people with disabilities conducted in 2002 revealed that most disabilities resulted from disease, accidents, and disasters that were preventable. 96.0% of the physical disabilities, which are responsible for 64.5% of all

the registered disabled people, are acquired. Among acquired cases, 34.8% were caused by traffic accidents or industrial disasters, 8.0% by carelessness at home, and 26.8% by other causes. In short, about 79% of people with physical disabilities are victims of preventable accidents(Table 7).

Table 7 : Main Causes of Major Disabilities according to Type and Gender (unit: %, number; mental and development disorders are excluded.)

Age		Physical Disability	Brain Disorder	Visual Impairment	Hearing Impairment	Language Disorder	Mental Retardation	Kidney Failure	Heart Failure
Inborn	Female	2.5	2.3	-	4.4	11.1	19.2	1.9	1.6
	Male	1.5	3.1	-	5.5	12.6	21.7	5.9	7.4
	Total	1.8	2.8	3.4	5.0	12.1	20.7	4.0	4.3
Postpartum Cause	Female	0.9	3.8	-	1.6	8.1	11.1	-	1.2
	Male	0.6	5.9	-	1.2	6.4	15.1	-	-
	Total	0.7	5.0	1.1	1.4	7.0	13.7	-	0.6
Acquired	Female	95.6	92.1	82.1	85.7	68.1	44.6	98.1	95.7
	Male	96.2	88.4	86.1	87.0	71.7	47.8	90.3	92.4
	Total	96.0	90.0	84.5	86.4	70.4	46.8	94.0	94.2
Unidentified	Female	1.0	1.8	14.6	8.3	12.6	25.1	21.3	1.6
	Male	1.7	2.5	10.6	6.2	9.3	15.3	15.7	-
	Total	1.5	2.2	12.2	7.2	10.5	18.9	18.3	0.9

Sources: KIHASA (2001). 2000 Survey on the Current Situation of People with Disabilities, Korea Institute of Health and Social Affairs.

There is a dispute over the causes of chronic and severe mental disease, but many agree that the further development of medicine, early discharge from the hospital, and proper rehabilitation like CBR can help the disabled lead a normal life just like others. In the case of chronic and severe mental illness, mental health programs should be activated not just to prevent the incidence of such diseases but also to prevent repeated admissions into mental institutions.

In conclusion, the majority of disability cases are preventable and that means Korea's disability precaution measures have failed. The problem in question is that disability prevention cannot be done by the public health sector alone. Cooperation with industry, transportation, fire departments, and police is necessary. The Jeju Provincial

Government expects to prevent accidents or incidence of disease through strengthened cooperation between relevant agencies and the "healthy city project" that it is pushing ahead with.

6) Economic Status of Persons with Disabilities and their Economic Activities

Table 8 presents the state of disabled people as of August 1, 2005 who receive subsidies from the government. Among people with disabilities, 3,764 (17.72%) are recipients of National Basic Livelihood Security. In particular, patients with epilepsy (37.19%), persons with mental disorders (32.16%), the mentally retarded (33.64%), people with kidney failure (27.29%), and individuals with respiratory disorders (25.40%) have higher rates of eligibility for government benefits(Table 8).

Table 8 : State of Disabled People who Receive Subsidies from the Government

Type	Number	Recipients of National Basic Livelihood Security	
		N	%
Physical Disability	**10,353**	**1,546**	**14.93**
Brain disorders	**1,923**	**301**	**15.65**
Visual impairment	**3,043**	**449**	**14.76**
Hearing impairment	**1,879**	**296**	**15.75**
Language disability	**185**	**21**	**11.35**
Mental retardation	**1,926**	**648**	**33.64**
Developmental disorders	**114**	**5**	**4.39**
Mental disability	**709**	**228**	**32.16**
Kidney failure	**502**	**137**	**27.29**
Heart failure	**192**	**31**	**16.15**
Respiratory failure	**126**	**32**	**25.40**
Liver failure	**66**	**13**	**19.70**
Facial deformity	**13**	**1**	**7.69**
Ostomy/ Urostomy	**92**	**11**	**11.96**
Epilepsy	**121**	**45**	**37.19**
Total	**21,244**	**3,764**	**17.72**

Source: Jeju Provincial Government (2005a). "The Current Situation of Welfare Policy for people with disabilities in Jeju-do". JPG's internal data, Unpublished.

The real state of employment of people with disabilities still is not properly understood. Their economic activities are known only through the information provided to the government by companies who hire them. According to the Employment Promotion and Rehabilitation Act, central and local government offices and businesses with more than 300 employees have an obligation to fill at least 2% of their positions with disabled persons. The handicapped employment rate in government and industry in Jeju-do averages 2.08%.

7) The Current State of Facilities and Staff for Jeju Citizens with Disabilities

Facilities in Jeju-do for people with disabilities have been on the rise; the number of living facilities was one in 1995 and four in 2003, while there was only one vocational training center in 1995 but six in 2003. Welfare centers increased from one in 1995 to five in 2003. In addition, daytime care facilities and psychiatric facilities are expected to increase in number(Table 9).

By region, there are 19 facilities in Jeju City and 9 in Bukjeju-gun (Northern Jeju County), which make up the majority, while there are 5 in Seogwipo City and 2 in Namjeju-gun (Southern Jeju County(Table 10).

It has repeatedly been pointed out that Jeju-do lacks medical facilities and personnel. At present, six general hospitals have rehabilitation departments and only one separate rehabilitation institution is operating. (MOHW, 2005) As of 2003, 1848 persons possess social welfare specialist licenses. (MOHW, 2004)

Table 9: State of Facilities for People with Disabilities by Year

	1995	2000	2001	2002	2003	2004
Living Facilities	1	-	2	3	4	4
Vocational Rehabilitation Centers	1	2	5	6	6	6
Welfare Centers	1	4	4	4	5	5
Medical Rehabilitation Centers	1	-	-	-	-	1
Daytime Care Facilities	2	3	3	5	5	5
Short-term Care Facilities	-	1	1	1	1	2
Group Homes	3	3	3	3	3	4
Rehabilitation Gymnasiums	-	-	-	-	-	-
Personal Help Facilities	1	1	1	1	1	1
Sign language Translation Centers	2	2	2	2	2	2
Mental Health Facilities	1	2	2	2	3	3
Facilities for the Homeless	1	2	2	2	2	2
Total	14	20	25	29	32	35

Source: Jeju Provincial Government (2005e). "The Current Situation of Facilities for people with disabilities in Jeju-do". JPG's internal data, Unpublished.

Table 10 : State of Facilities for People with Disabilities by Area

	Jeju City	Seogwipo City	Northern Jeju County	Southern Jeju County	Total
Living Facilities	2	-	2	-	4
Vocational Rehabilitation Centers	2	1	2	1	6
Welfare Centers	3	1	1	-	5
Medical Rehabilitation Centers	1	-	-	-	1
Daytime Care Facilities	3	1	1	-	5
Short-term Care Facilities	1	-	1	-	2
Group Homes	2	-	1	1	4
Rehabilitation Gymnasiums	-	-	-	-	-
Personal Help Facilities	1	-	-	-	1
Sign language Translation Centers	1	1	-	-	2
Mental Health Facilities	2	-	1	-	3
Facilities for the Homeless	1	1	-	-	2
Total	19	5	9	2	35

Source: Jeju Provincial Government (2005a). "The Current Situation of Facilities for people with disabilities in Jeju-do". JPG's internal data, Unpublished.

In Jeju-do, 13 doctors, 32 nurses, two nutritionists, and four physical therapists are working at public health centers. (MOHW, 2004) Jeju-do's public health centers have no occupational therapist and speech therapist. It has not yet been determined how many qualified therapists there are in this island. Korea has yet to build an institutional framework for certificates of clinical therapist, walking trainer, and medical audiologist. Worse, neither professional institutions nor qualification systems exist for such positions.

6) The Current Situation of Services for the Disabled in Jeju-do

In Korea, public health centers and primary health care centers provide home-care services for elderly people from low-income families and physically disabled people. To get a better grasp of the actual condition of home-care services in Jeju-do, a survey was conducted, which found that 7.8% of the disabled are receiving services from pubic health centers; in particular Southern Jeju County posted the highest rate of treatment at public health centers, at 13.14%(Table 11).

Looking at the kinds of disabilities suffered by patients receiving home care, we found that 20.87% of people with brain disorders, 15.93% of those suffering epilepsy, 13.95% of ostomy or urostomy patients, 13.45% of kidney failure patients, and 9.66% of people with language disorders are under the home care program(Table 12).

Among home care recipients who experience medical complications, people with high blood pressure were the most highly represented, at 44.17%, while diabetics represented 9.84%. 256 handicapped patients suffer more than two kinds of diseases, comprising 14.25% of the total. Staff from public health centers visited these home care patients once a month in 33.33% of cases, twice a month in 14.18% of cases, and once a week in 17.25% of cases(Table 13).

Table 11 : Current Situation of Home Care Recipients

	Population with Disabilities (As of 2005. 3. 31)	Number of People under Homecare (As of 2004. 12. 31)	Percentage
Jeju- City	9385	634	6.76
Seogwipo-City	3237	252	7.78
Northern Jeju County	4577	215	4.70
Southern Jeju County	3264	429	13.14
Total	20463	1530	7.48

Sources: Jeju Provincial Government (2005g). "The Current Situation of Those who should receive visit care". JPG's internal data

Table 12 : Disability Type of Home Care Recipients

Classification	Number (As of March 31, 2005)	Recipient of home care	
		N	%
Physical Disability	10145	679	6.69
Brain disorder	1802	376	20.87
Visual impairment	2881	113	3.92
Hearing impairment	1807	41	2.27
Language disability	176	17	9.66
Mental retardation	1873	90	4.81
Developmental disorder	104	-	-
Mental disability	633	61	9.64
Kidney failure	476	64	13.45
heart failure	174	15	8.62
Respiratory failure	129	8	6.20
Liver failure	51	2	3.92
Facial deformity	13	1	7.69
Ostomy /Urostomy	86	12	13.95
Epilepsy	113	18	15.93
Double disabilities	-	49	-
Others	-	8	-
Total	20463	1554	7.59

Sources: Jeju Provincial Government (2005g). "The Current Situation of Those who should receive home care". JPG's internal data

The state of vocational training facilities for people with disabilities in Jeju-do is presented in the following table. Out of a total of six facilities, five offer services to mentally ill people and one is for persons with hearing difficulties. A total of 163 people are being trained in accessory and craft-making, laundry, pottery, woodcarving, candle crafts and baking(Table 14).

Table 13 : State of Medical Complications of Home Care Recipient

Classification	N	%
High blood pressure	678	44.17
Diabetes	151	9.84
Dyslipidemia	2	0.13
Heart failure	27	1.76
Chronic pulmonary disease	14	0.91
Spasmodic disease	9	0.59
Intestinal Ulcers	12	0.78
Aches	46	3.00
Osteoporosis	17	1.11
Kidney failure	26	1.69
Bedsores	12	0.78
Others	541	35.24
Total	1801	100.00

* Those who have double conditions are 256 in number with the percentage of 14.21%.
Souces: Jeju Provincial Government (2005g) The Current Situation of Those who should receive home care. JPG's internal data

Table 14 : State of Vocational Rehabilitation Service in Jeju-do

	Main user	Number	Main job and technique	Main Service	Staff
Chungang Labor Center	Physical disability	50	Accessory, laundry	Vocational training	12
Hyeojeongwon Vocational Training Center	Physical disability	25	Pottery	Vocational training	3
Three and Hand	Hearing impairment	20	Wood carving	Vocational training	3
Seogwipo-si Vocational Rehabilitation Center	Physical disability	23	Candle craft	Vocational training	3
Village of Peace	Physical disability	25	Bakery	Vocational training	3
Hallawon Vocational Rehabilitation Center	Physical disability	20	bakery	Vocational training	2
Total		163			26

Souces: Jeju Provincial Government (2005e). "The Current Situation of Facilities for people with disabilities in Jeju-do". JPG's internal data, Unpublished.

7) The Current Situation of Organizations for the disabled in Jeju-do

There are eight organizations for the disabled in Jeju-do; Jeju Chapter of Association of the Deaf, Jeju-do Association of People with Physical Disabilities and Jeju-do Association for the Mentally Retarded were found in the 1980s, The Union of

Handicapped Association in Jeju-do, Jeju Chapter of Korea Association of the Blind in the 1990s, and Jeju Chapter of Korean Kidney Association, Disabled Peoples' International Korea Jeju DPI, Jeju Chapter of Korea Parents Association in the 2000s(Table 15).

Table 15 : Status of Organizations of People with Disabilities

Name of Organization	Foundation date	Number of disabled	Member organization	staff
The Union of the Handicapped in Jeju-do	1996. 12. 31	19,809	7	3
Jeju-do Chapter of the Korean Association of the Blind	1994. 12. 19	2,775	408	13
Jeju Chapter of the Association of the Deaf	1981. 1. 27	1,707	526	14
Jeju-do Association of People with Physical Disabilities	1989. 7. 15	11,629	2,228	15
Jeju-do Association for the Mentally Retarded	1989. 10. 11	1,933	918	6
Jeju Chapter of the Korean Kidney Association	2000. 4. 27	470	210	3
Disabled People International Korea, Jeju DPI	2002. 5. 16		181	3
Jeju Chapter of the Korean Parents Association	2000. 6. 5		260	2
Total			4,731	59

Sources: Jeju Provincial Governmet (2005f). "The Current Situation of organization for the disabled in Jeju-do", JPG's internal data, unpublished.

8) The State of Satisfaction with Jeju-do's Social Welfare Policy and Needs of the Disabled

A survey was conducted among persons with disabilities in order to learn their needs. They were asked to choose three of 11 given projects that should be implemented first for the improvement of welfare standards. The results showed that most respondents chose the expansion of the living cost subsidy, followed by the expansion

of subsidies for medical braces, better opportunities for employment, the expansion of welfare facilities, the expansion of convenient facilities, and subsidies for children's education costs(Table 16).

Table 16 : Top Priority Projects for Welfare of People with Disabilities

Classification	Frequency	Ratio (%)	Case ratio (%)
Preferred key projects for the improvement in welfare standards			
Expansion of living cost subsidy	247	24.7	74.0
Better opportunities for employment	144	14.4	43.1
Expansion of the subsidy for medical braces	162	16.2	48.5
Expansion of the subsidy for children's education costs	70	7.0	21.0
Expansion of the housework assistance program	67	6.7	20.1
Expansion of at-home visit rehabilitation programs	67	6.7	20.1
Expansion of convenient facilities	77	7.7	23.1
Expansion of welfare facilities	96	9.6	28.7
Support for hobby and leisure activities	38	3.8	11.4
Support for sports activities	15	1.5	4.5
Others	19	1.9	5.7
Total	1,002	100.0	300.0
In-home welfare services needed for families of those with medical difficulties			
Assistance with house chores (cleansing, laundry)	132	13.2	39.5
Offering transportation services	221	22.1	66.2
Consultation	86	8.6	25.7
Bathing Assistance			
Nursing services	78	7.8	23.4
Offering side dishes/Help with cooking	43	4.3	12.9
Haircutting service	62	6.2	18.6
Improvement of living environment	118	11.8	35.3
Providing civil services	43	4.3	12.9
Housing (renting an apartment)	130	13.0	38.9
Others	32	3.2	9.6
Total	1002	100.0	300.0

Sources: Shin et al.(2004). "The Survey on Satisfaction with the Social Welfare Policy of the Jeju Provincial Government and the Needs of People with Disabilities", Jeju Provincial Government & Cheju National University Social Studies Institute

In order to survey satisfaction levels with transportation services among other

things, nine points were suggested: braille sidewalks, the set up of ramps for wheelchairs at the entrance to buildings, removal of thresholds at front doors, installation of elevators in buildings, improvement of public transportation, availability of wheelchairs in public service offices and at tourists sites, the installation of handrails by steps, the audio and text crosswalk prompts, and disabled people-only parking lots(Table 17).

The survey details the dissatisfaction of the handicapped with mobility services in daily life. Particularly public transportation was rated as the most unsatisfactory followed by thresholds at entrances to buildings and lack of ramps for wheelchairs.

In the category of medical services, there were three points; medical rehabilitation facilities, patient transfer service, and convenient hospital facilities. As for medical rehabilitation facilities and the patient transfer service, more respondents were 'dissatisfied' than 'satisfied', while the question about convenient facilities in hospitals drew more answers of satisfaction.

Regarding health and pastime activities, more respondents expressed dissatisfaction rather than satisfaction with vehicle service, recreation and hobby programs for persons with disabilities.

Questions about satisfaction with educational services were broken down into four parts: accessibility to special schools, instruments and tools for education, educational space, and shuttle buses. In all of the four parts, most people responded with a rating of 'fair'.

Questioned about the necessity of in-home volunteers, fewer people replied that

they needed volunteers for handling personal affairs and housework, but more said they need them when traveling a short distance(Table 18).

Table 17 : Satisfaction Level with Welfare Facilities for People with Disabilities

Classification	Very unsatisfactory	Unsatisfactory	Fair	Satisfactory	Very satisfactory
Mobility service satisfaction (N=334)					
Braille walkways (representing the condition of roads in Braille for handicapped pedestrians)	10(3.0)	99(29.6)	182(54.5)	40(12.0)	3(0.9)
the installation of ramps for wheelchairs at the entrances to buildings	23(6.9)	113(33.8)	159(47.6)	33(9.9)	6(1.8)
Removal of thresholds at front doors	19(5.7)	120(35.9)	146(43.7)	44(13.2)	5(1.5)
installation of elevators in buildings	18(5.4)	84(25.1)	138(41.3)	84(25.1)	10(3.0)
Using means of public transportation (buses and taxies)	51(15.3)	135(40.4)	108(32.3)	35(10.5)	5(1.5)
wheelchairs in public service offices and at tourist sites	18(5.4)	93(27.8)	188(56.3)	32(9.6)	3(0.9)
Installation of handrails along steps	16(4.8)	113(33.8)	156(46.7)	42(12.6)	7(2.1)
Audio and text prompts at crosswalks	25(7.5)	96(28.7)	177(53.0)	32(9.6)	4(1.2)
disabled people-only parking lots	20(6.0)	72(21.6)	176(52.7)	53(15.9)	13(3.9)
Medical service satisfaction (N=334)					
Medical rehabilitation facilities (including social welfare facilities)	10(3.0)	105(31.4)	149(44.6)	61(18.3)	9(2.7)
Patient transfer service	13(3.9)	111(33.2)	168(50.3)	34(10.2)	8(2.4)
Convenient in-house facilities	12(3.6)	80(24.0)	140(41.9)	90(26.9)	12(3.6)
Health and pastime service satisfaction (N=334)					
Vehicle service	15(4.5)	114(34.1)	165(49.4)	34(10.2)	6(1.8)
Recreation programs	14(4.2)	123(36.8)	171(51.2)	20(6.0)	6(1.8)
Hobby programs	11(3.3)	121(36.2)	172(51.5)	26(7.8)	4(1.2)
Education service satisfaction (N=328)					
Accessibility to special schools (admission availability)	12(3.7)	95(29.0)	202(61.6)	13(4.0)	6(1.8)
instruments and tools for education	8(2.4)	91(27.7)	207(63.1)	14(4.3)	8(2.4)
educational space (including playgrounds and classrooms)	10(3.0)	92(28.0)	205(62.5)	15(4.6)	6(1.8)
shuttle buses	21(6.4)	98(29.9)	183(55.8)	21(6.4)	5(1.5)

No response about education serves satisfaction: 6 (1.8%)
Sources: Shin et al.(2004). "The Survey on Satisfaction with Social Welfare Policy of Jeju Provincial Government and Needs of People with Disabilities", Jeju Provincial Government & Cheju National University Social Studies Institute

Table 18 : Necessity of in-home Volunteers

Classification (N=334)	Very unnecessary	Unnecessary	fair	necessary	Very necessary
Personal hygiene (bathing & dressing)	50(15.0)	104(31.1)	65(19.5)	73(21.9)	42(12.6)
Housework (cleaning and laundry)	47(14.1)	94(28.1)	60(18.0)	103(30.8)	30(9.0)
Transportation (driving or using buses)	33(9.9)	62(18.6)	56(16.8)	129(38.6)	54(16.2)
Traveling a short distance	37(11.1)	79(23.7)	66(19.8)	108(32.3)	44(13.2)
Shopping	51(15.3)	100(29.9)	84(25.1)	76(22.8)	23(6.9)
Money management	75(22.5)	137(41.0)	71(21.3)	35(10.5)	16(4.8)

Sources: Shin et al.(2004). "The Survey on Satisfaction with Social Welfare Policy of Jeju Provincial Government and Needs of People with Disabilities", Jeju Provincial Government & Cheju National University Social Studies Institute

II. Objectives of CBR in Jeju-do

The objectives of CBR in Jeju-do are:

1) to minimize occurrence of disabilities through disability prevention and early detection, rehabilitation, and promotion of health for persons with disabilities and those managing chronic illnesses.

2) to help persons with disabilities establish themselves as community members, realize their fullest potential, lead independent lives in terms of function, and to give opportunities to join social, economic, cultural and the other areas of the community, ultimately creating the greatest social integration possible.

3) to raise the awareness of Jeju residents about rehabilitation, support rehabilitation specialists in public health centers, build a network with related organizations, and provide a strong labor force engaged in rehabilitation services in the community.

4) to develop, implement and assess rehabilitation programs and strategies right for the community by encouraging active participation of people with disabilities, their families, and their neighbors.

5) to provide various services in efficient and systematic ways through joint health and welfare programs, to upgrade the quality and satisfaction of services, utilize human and material resources as much as possible, and in the end, to facilitate rehabilitation of people with disabilities and encourage their social participation.

III. Infrastructure and Multi-sector Collaboration for Community Based Rehabilitation in Jeju-do.

In order to push ahead with CBR, The Jeju Provincial Government has deployed officials in charge of social welfare and public health in public health centers and put together a CBR team with doctors, nurses and physical therapists who have shown interest in persons with disabilities. The team will cooperate with the healthy city project team in implementing CBR programs and also work to achieve the success of CBR projects in Jeju-do in cooperation with organizations of the disabled, local groups and colleges(Figure 1).

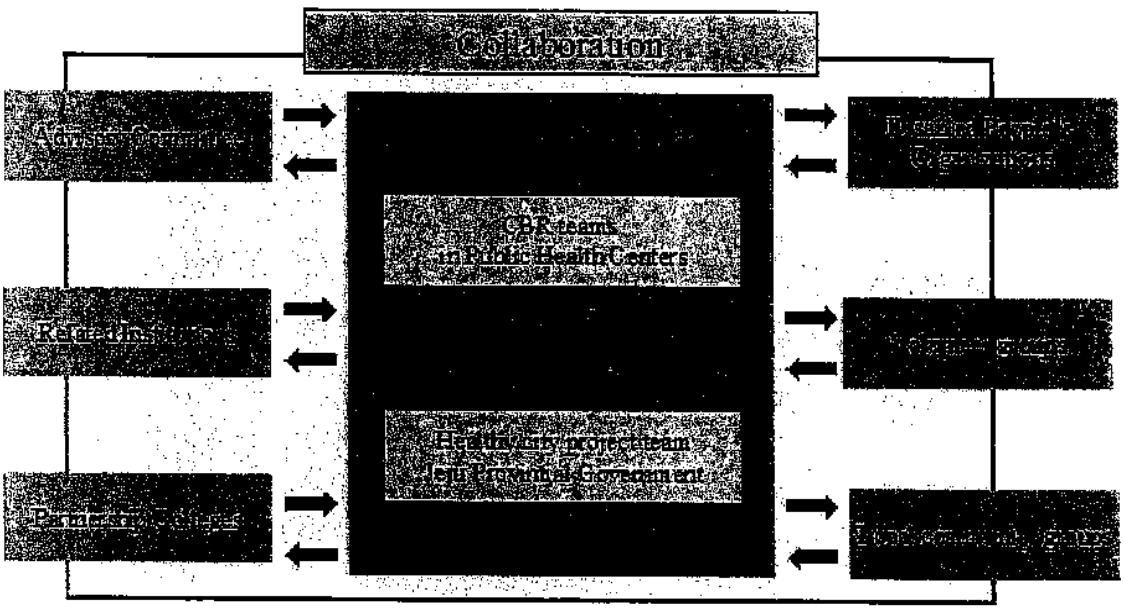

Figure 1. CBR Infrastructure and Intersectoral Collaboration

1. CBR team for integrated health care and social welfare services

1) Necessity

People with disabilities usually face both physical and mental health problems.

Physical disabilities entail mental suffering and mental problems, in turn, invite physical illnesses. People with disabilities have health as well as social needs. Therefore, it is necessary to provide them with integrated services for physical and mental health care as well as for social welfare.

Currently, health care and welfare services are divided, not integrated. Welfare services are provided by social workers in the Eup, Myeon or Dong offices and take place at local welfare facilities, while health care services are provided at public health care or medical centers separately from welfare services.

Considering the fact that people with disabilities have health care as well as social needs, the separate systems of local public health care and welfare should be changed. The integration of health care and welfare services can meet the needs of the disabled.

2) Objectives

The objectives of this project are to meet both health care and welfare needs that the disabled and low-income patients with chronic diseases are faced with, to provide user-friendly integrated services by facilitating cooperation between health centers and welfare organizations, to deliver health and welfare services more quickly, comprehensively, and efficiently through a uniform delivery system rather than the current system under which the underprivileged access services through two different channels.

3) Plan

By dispatching public officials in charge of social welfare to each public health center, health care and welfare services will be conjoined and implemented at the same time. A foundation will be laid for the integration of health care and welfare services for the underprivileged will through cooperation between public health centers and the administrative network for welfare services.

4) Constitution of personnel

The team will consist of 5-7 personnel including a doctor, a nurse, a social worker, a physical therapist and one occupational therapist.

2. Constitution and operation of the CBR advisory committee

The advisory committee will be composed of specialists in rehabilitation and preventive medicine, professors in nursing science and social welfare, the chairman of the Association of People with Disabilities, the director of the welfare center for the disabled, and representatives of volunteers. They will set the direction of CBR in Jeju-do and give advice on the implementation and evaluation of relevant programs.

3. Establishment of a network and cooperation with related organization in Jeju-do

Relevant organizations in Jeju-do will take the lead in constructing the CBR council and hold regular meetings. The CBR council will be made up of administrative organizations, medical centers, welfare and educational institutes and local volunteer groups. Administrative organizations will give administrative welfare support for the disabled and their registration, while medical centers will deal with professional medical care, grading and assessing disabilities, and rehabilitation. Welfare institutes will provide social rehabilitation programs by connecting disabled people with sponsors or volunteers. Educational institutions will take charge of student education for raising awareness about special education for disabled children and their rehabilitation. Local volunteer groups will offer volunteer services and take part in improving social awareness.

4. Establishment of a partnership with universities in Jeju-do

We need to establish partnership with the Cheju National University Medical School and to build a cooperative system for research and education. The CBR team and the school will jointly hold regular seminars in order to give advice on the direction and programs of the CBR project and offer case studies of individuals with disabilities. The partnership will conduct research regarding CBR and educate working-level CBR staff.

5. Building a partnership with DPOs (Disabled People's Organizations)

DPOs have a strong will and intention to understand and solve problems related to persons with disabilities. They are the leading player in CBR as well as important partners for the success of CBR.

The CBR team supports DPOs. This involves the empowerment of persons with disabilities for forming their own self-help and advocacy groups, building the capacity of such organizations to engage in development issues in general and disability issues in particular, and the recognition of the importance of these organizations as important stakeholders in CBR.

6. Connection with volunteer groups and local community organizations to boost volunteer service

The CBR team can increase the effectiveness of rehabilitation through continuous rehabilitation efforts in cooperation with volunteers and facilitate social unity by inspiring community members and people with disabilities to help each other.

The team will cooperate with volunteer groups working in volunteer service

centers or community welfare centers and ask for help from other local civic or volunteer groups. It will also actively promote volunteer activities by recruiting volunteers and promoting the CBR.

Volunteers provide personal hygiene and rehabilitation to those in need. They help persons with disabilities and their families with house chores and their emotional needs, and also support them to get involved in local community activities.

A local official in charge of rehabilitation will take responsibility for volunteers and educate them and help them to record their work. A monthly meeting will be held to inspire volunteers to continue their service, where volunteers talk about their jobs, hear responses from those they helped, and where all can voice their opinions on parts that should be corrected.

IV. Activities of CBR in Jeju-do

The details and strategies of CBR in Jeju-do are as follows; Raising awareness, primary prevention of disability, innovative care for chronic disease, facilitating registration of the disabled, health care and rehabilitation services, dispatch of home helpers and support services, assurance of the right to public transportation, and facilitation of social integration(Figure 2).

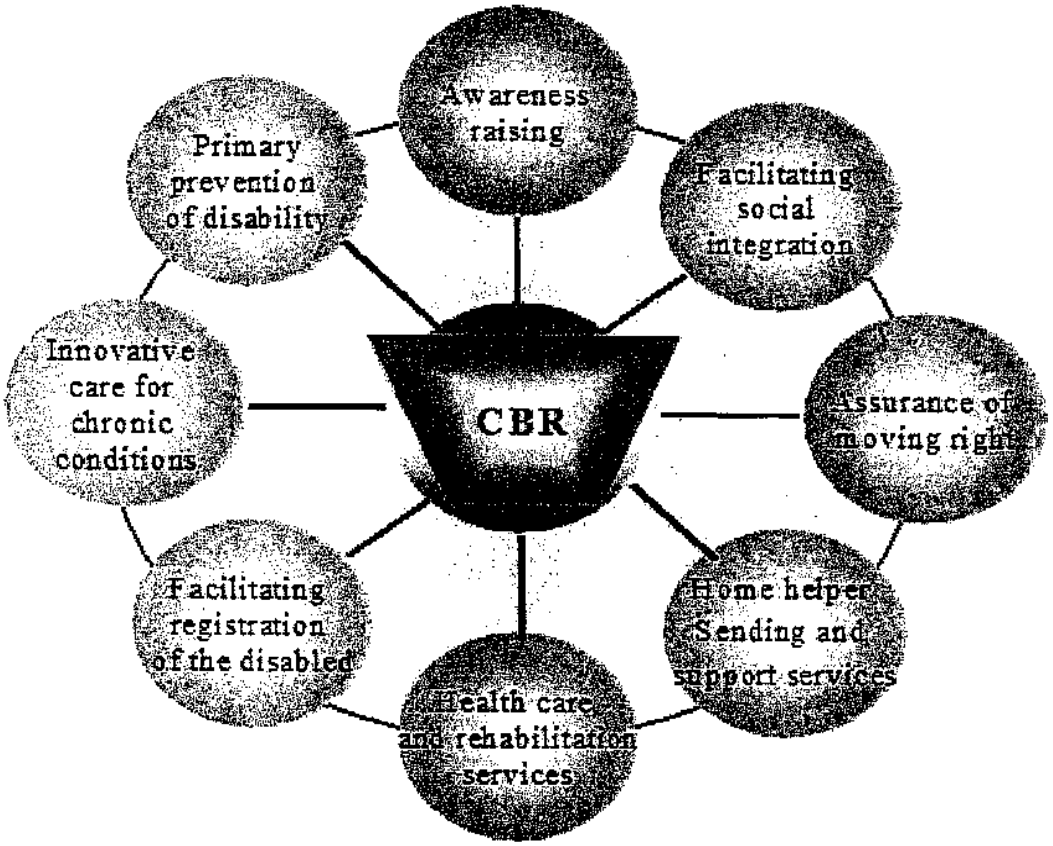

Figure 2. Approach and Activity of Community-Based Rehabilitation

1. Raising awareness

The CBR team provides education and launches promotional campaigns for raising awareness of disability, targeted at persons with disabilities, their family members, groups vulnerable to danger, and community residents.

In order to improve awareness of disability, it helps if people better understand what disability is and the importance of rehabilitation, as well as about measures to prevent disabilities and complications, and how to help persons with disabilities. The team will also provide related information and provide education through community meetings, institutional visits, and the use of mass media.

By raising the local community's awareness and understanding of rehabilitation services, it will contribute to the integration of the handicapped into society.

2. Primary prevention of disability through accident prevention

For people with disabilities, it is very important that Primary, secondary, and tertiary prevention be formed in a comprehensive way. Prevention, treatment, rehabilitation, and health promotion projects take on an important role in health care services for the physically or mentally challenged. Rehabilitation is often emphasized, but prevention is the first step to take. There are congenital and acquired factors for disabilities, and both can be prevented at the primary stage.

Table 19. Causes of disabilities

Classification	Causes of disabilities and cases
Congenital causes	- hereditary: congenital deformity, Down's syndrome, inborn errors of metabolism - gestation period: rubella, mumps, syphilis, Rh blood type incompatibility, medicine, radiation, alcohol, smoking and CO intoxication. - postpartum: trauma, newborn baby with infection by Herpesviruses, hypoxemia
Acquired causes	- Accidents: home accidents, industrial accidents, and traffic accidents - Infection: meningitis

These disabilities are caused by acquired factors such as diseases, accidents, and disasters, which can be prevented. Physical disabilities, which account for 65% of the

total registrants, are caused by car accidents and industrial disasters (34.8%), accidents at home (8.0%), and by other factors (26.8%). These factors are given much weight (70%) in the incidence of physical disabilities (KIHASA, 2001).

It can be concluded that the majority of disabilities can be prevented, but preventive measures fail in most cases in Korea. Problems lie in the fact that the public health sector alone cannot prevent the occurrence of disabilities. Cooperation from a variety of sectors, including road and traffic, as well as fire and police, is desperately needed. Jeju-do plans to consolidate cooperation among sectors by pushing ahead with the "Healthy City Project", and this cooperation is expected to contribute to the prevention of accidents and disabilities.

1) Activating Safety Education

In order to prevent safety accidents, educational programs for citizens should be promoted. For example, extensive education on first aid (cardiopulmonary resuscitation, first aid skills), education for parents on the prevention of babies' accidents at home, active school health education programs on the prevention of accidents and violence in school, and education on the prevention of injuries to the elderly from falls, and related intensive flexibility training.

2) Strengthening Safety Regulations

In order to prevent accidents, safety regulations should be strengthened. For example, making helmet use and other protective equipment mandatory when riding in-line skates or bicycles, augmenting signs at roads where accidents frequently occur, making helmet use mandatory for motorcycle passengers, heightening penalties, enhancing enforcement of the seat belt law, strengthening safety regulations on children's playing facilities, and making regular safety inspections mandatory for

children's playing facilities.

3) Local Community Campaign in Connection with the Task Force for the "Safe City"

The Fire Safety Unit of Jeju Province is pushing ahead with a WHO "safe city" project. Local community campaigns should be conducted in connection with Jeju's Safe City task force. For example, local community campaign activities for creating an accident- or violence-free environment, the spreading of campaigns to eradicate violence, providing safety information through the mass media, the formation of volunteer organization to prevent safety lapses and deal with emergency situations, and the activation of local community councils.

3. Prevention of Disabilities through Care for Chronic Conditions

Secondary prevention, early discovery, and early treatment prevent diseases from worsening. Most disabilities result from preventive acquired causes, but only 71.4% receive treatment within one month of discovery or diagnosis of disability. The rest (28.6%) do not receive immediate treatment. The reasons they do not receive treatment are because they are poor (30.8%), because they think the condition will naturally heal soon (29.4%), and because they are indifferent to or ignorant of disabilities (18.0%). Rehabilitation is the most important factor for people who already have disabilities. Primary and secondary prevention can considerably help prevent disabilities and ease them at an early stage. Rehabilitation is crucial for the management and treatment of disabilities. Unfortunately, resources are focused on treatment rather than prevention in Korea.

Care for chronic conditions is an important strategy for the prevention of disabilities. The WHO also suggests the framework named ICCC (Innovative Care for

Chronic Conditions) (WHO, 2003). Although it is not aimed at the disabled, ICCC is focused on all people with chronic diseases, and the public health care institutions that must pay attention to the prevention and care of chronic diseases (WHO, 2003). If chronic conditions are well cared for at the early stages, disabilities caused by chronic conditions can be prevented or delayed. Jeju plans to prevent the occurrence of disabilities by forming a close relationship with local health care institutions.

Among chronic diseases, hypertension, in particular, is closely related to the occurrence of disabilities. Stroke, which is closely related to hypertension, is the primary cause of death in Jeju. It is reported that brain disorders, which are associated with strokes, account for 9% of deaths, ranking 3rd. Given the fact that many people with stroke-related disabilities are registered as those with physical disabilities (KIHASA, 2001), it can be inferred that there are far more disabilities related to strokes.

Jeju plans to set a framework for care of chronic conditions which can easily lead to hypertension, diabetes, arthritis, and ophthalmic diseases by establishing a cooperation system between the task force for a Healthy City, the CBR team of the public health center, and public health care institutions.

1) Connection with Local Health Care Institutions

If a system of cooperation is established, health care institutions will be in charge of caring for hypertension, and health care centers will take a role in providing health education.

People with untreated hypertension will be referred to health care centers where they can receive education. Meanwhile, health care institutions will promote hypertension care courses, and ask that people with hypertension be referred to the health care center, if deemed necessary.

2) Operation of Hypertension Care Courses

The health promotion team of the health care center will operate chronic disease care courses in cooperation with local rehabilitation teams. The health promotion team of the health care center will take on the role of providing education on how to care for chronic disease, and also inform patients of the risk of disability caused by hypertension, motivating people to actively care for hypertension.

3) Activate Hypertension self-help groups

The CBR team encourages forming self-help groups for hypertension. The team helps in the rehabilitation of patients with apoplexy, organizing groups of volunteers composed of hypertension patients. It is possible to awaken hypertensive patients to the danger of complications and guide them to take care of their diseases in an active manner. The hypertensive patients make efforts to improve their daily habits through cooperation. They are encouraged to share know-how to efficiently improve their habits with other fellow patients.

4. Administration of Handicapped Registration and conducting surveys on their needs

The number of registered disabled people accounts for a relatively small portion, 3.5%, of the total population as of 2004 and it is estimated that many people with disability are not registered. Thus it is necessary to actively find the unregistered people and take measures to provide them with timely rehabilitation services. In addition to the current regional search, registration at medical service centers, social welfare agencies, as well as public health centers should be allowed.

Surveys on the real life of the mentally and physically challenged and their needs will be carried out to determine the exact number of disabled people on Jeju Island and their actual living conditions. The surveys will produce basic information to offer

better-fitting health care and medical service and can also be utilized to draw up and push ahead with welfare policies for the disabled.

Members of CBR teams at public health centers for cities and counties, health care sub-centers, and primary health care center personnel will visit the disabled in person to carry out surveys on their living conditions and what sort of health care and welfare services they need.

5. Health care and rehabilitation services: Home-visit care and exercise classes

Public health centers, health care sub-centers and primary health care centers designate nurses for each region who visit low-income households with health problems or those with difficulties in moving to offer needed care.

The main beneficiaries of the home-visit care project are seniors and the disabled within the low-income bracket. The CBR teams provide well-organized rehabilitation services for these disabled people. They provide medical rehabilitation services including treatments for bedsores, posture correction, and exercises for joints. For the promotion of health, medical check-ups and education to prevent complications and relapses will be given. Rehabilitation treatments such as training motions for daily life including walking and moving will help the disabled acquire the functions necessary for an independent life.

Exercise classes will be open to the disabled who can make movements. For example, exercise classes for disabled stroke patients and patients with arthritis will offer different training according to the patients' needs.

More professional medical treatment is to be provided by partner hospitals if necessary and specialists will also offer special rehabilitation treatments including

physical therapy, occupational therapy and speech therapy if required.

6. Domestic helper dispatch and support services for families of the disabled

Families of the severely disabled suffer under the burden of caring for their ailing family member. Family support program will be strengthened to prevent the exhaustion of households.

The care burden of families can be largely relieved through the dispatch of helpers. Every year, about 80 people are trained to be domestic helpers in Jeju. The trained home helpers are dispatched to the families in need and they help the disabled with their personal hygiene, housework, and transportation in order to facilitate the support program.

Families of the disabled are encouraged to make groups in which they can share information and experiences as well as boost cooperation.

7. Guarantee of the right to mobility

The guarantee of the right to mobility for people with disabilities protects their human rights and facilitates their social consolidation.

To this end, convenient facilities and means of public transportation for people with disabilities should be expanded to support their mobility and social life. Also, the availability and accessibility of public transportation should be improved.

Efforts to improve public transportation for people with disabilities include the operation of non-step buses and the installation of mobility-convenient equipment at

terminals, ports, airports, and bus stations. It is also encouraged for each organization to introduce a wheelchair lift for buses. In 2003, one non-step bus was introduced in Jeju-do and two others were purchased in 2004, bringing the total to three. At present, there are seven wheelchair lifts for buses with the first one purchased in 2001 in addition to eight rental cars for people with disabilities. The number of taxies available for people with disabilities is 34, which were secured in 1998 and 2003 through financing by the Jeju Provincial Government.

This program needs the support of civic groups advocating the right to mobility for the handicapped.

The Jeju Association of the Disabled and the Association of people with physical disabilities have launched campaigns to promote the installation of convenient facilities and the installation of support centers; their campaigns need to be further promoted and supported.

These organizations can serve as facilitators in accelerating the installation and advertising of convenient facilities, finding out the current situation of the handicapped, and in drawing responses from the community about facilities for the disabled.

The CBR team will conduct surveys on the disabled about their experiences with convenience facilities in cooperation with the wider community (both disabled and normal) and specialists. On the basis of the results, the CBR team will check and improve the condition of convenience facilities such as exits, hallways, restrooms, and parking lots in tourist attractions.

Under the project, people with disabilities will get their right to mobility and will have extended opportunity to participate in social activities through rented vehicles and rehabilitation-assistive devices; in particular, people with severe disabilities can rent a power wheelchair.

Handicapped-friendly housing renovation will be carried out in an effort to help

persons with disabilities lead independent lives. Housing renovation includes installing supports and bidets in restrooms and lowering thresholds at entrances.

In order to ensure the right to mobility, more convenient facilities at home are necessary. In addition, other efforts should be made; we should seek ways to increase convenience facilities in commercial areas as well as in public places such as parks and gyms. The team will offer financial support in building convenience facilities, urge those who are obliged to equip convenience facilities within their building to comply with related regulations, and strengthen the regulations on new buildings.

8. Facilitation of social integration for the disabled

1) Subsidy for accelerating employment of the disabled

People with disability have few employment possibilities and face difficulties participating in society. They suffer from financial hardships due to low income. The subsidy aids companies hiring the disabled and will provide more job opportunities for them as well as establishing the basis for self-support and independence. Small and middle-sized companies will no longer avoid recruiting the disabled.

According to the Act on Employment Promotion and rehabilitation of the disabled, the central and municipal governments plan to have the number of disabled public officials account for more than 2 percent of their total workforce. It is currently compulsory for companies with more than 300 employees to fill the 2 percent of their regular positions with the disabled. The average percentage of disabled employees at these offices and companies is 2.08 percent. Subsidies are granted to companies where the number of disabled workers accounts for more than 2 percent of the company's workers, while those businesses that fail to meet the 2 percent standard are burdened with a punitive levy. 50 firms were given subsidies and 3 firms were penalized for failing to meet the minimum percentage of disabled workers in 2004. (Jeju Municipal

Government, 2004)

The Jeju municipal government provides subsidies to companies that hire the disabled for the first time. Since April 1st, registered companies employing 5 to 50 workers which hired disabled workers for the first time were granted 300,000 won in subsidies for workers who had worked for more than 4 months. 18 companies were given subsidies for 57 employees in 2003 and 40 companies were provided with subsidies for 121 disabled workers. The local administration will continue to expand the subsidy measure.

To guarantee greater employment opportunities for the physically and mentally challenged, the subsidy will be granted to smaller companies in the foreseeable future.

2) Fostering vocational rehabilitation

The disabled must have skills and knowledge to be employed. Vocational training is offered at welfare facilities for the disabled in Jeju. The training is focused on skills for producing accessories and crafts, doing laundry, pottery, woodworking, candle crafts and baking. However, most training is for mentally disabled people. In the future, customized vocational rehabilitation programs depending on the degree and type of disability are to be established to help more people join the economy.

3) Community participatory programs for the disabled

The disabled have limited chances for participation in community activities or programs. They should not be alienated and should rather be given chances to take part in community activities and programs to carry on their lives like any other human being. For a better life, self-help groups for the disabled will be supported and community participation programs will be conducted. Their outings will be supported and registration services for the handicapped and as well as rehabilitation information will

be provided. Also, recreation activities, physical training, and education activities will be supported.

V. Evaluation

1. Framework for CBR evaluation

The Framework for CBR evaluation is based on the reports of Wirtz and Tomas (2002), which was written on the basis of the documents about the previously implemented CBR projects.

The evaluation framework can broken down into three domains; maximizing the potential of the disabled, service delivery, and the living environment of the disabled.

The three areas of concern presented in the documents can be divided as follows:

1) Maximizing the potential of the disabled

- Functional independence
- Education
- Economic independence
- Inclusion, participation in family and community life
- Leadership roles in the community
- Participation in/ownership of programs

2) Service delivery

- Program planning and management
- Financial and people management
- Training
- Sustainability

3) Living environment of the disabled

□ Family attitudes and involvement

□ Community attitudes and inclusion of PWD

2. Evaluation of CBR in Jeju-do

The evaluation framework presented in documents was for persons who were already disabled.

However, a new evaluation framework is needed as the Jeju-do CBR project is to be implemented with the inclusion of tertiary as well as primary prevention. The new framework has a fourth dimension- people who do not currently have any disability, but need primary and secondary prevention to escape the danger of becoming disabled due to disease.

The CBR evaluation is designed to measure the efficiency of the project, and more specifically the objectives and programs, in conjunction with the existing evaluation framework. The next table presents evaluation points and detailed items of the four areas of concern included in the evaluation framework.

As presented in the following table, the same questions for each item will be given to the subjects at two different times; before project implementation and 2 years after. The two results will then be compared. The effects of the project will be evaluated while considering significant differences in the pre- and post-implementation statistics.

In the first domain, functional independence will be evaluated by FIM, which stands for Functional Independence Measure. It is a functional ability measurement developed by the American Academy of Physical Medicine & Rehabilitation and the American Association for Rehabilitation of the Disabled.

The FIM measures 18 items over 6 different areas: self-care, sphincter control, mobility, locomotion, communication, and social cognition. It is a 7-level scale developed to assess the ability to do a task. A score of 1 indicates that the individual is fully dependent on another to complete the task; "2" means denotes "Maximal Assistance," "3" indicates "Moderate Assistance," a score of "4" means "Minimal Contact Assistance", "5" implies "some Supervision or Setup", while a score of "6" on the FIM represents "Modified Independence". A score of 7 is achieved if the individual is able to perform tasks independently.

The minimum score is 18 with a maximum of 126. Higher scores represent a higher degree of independence.

In the education section, satisfaction level with content and subjects to be taught to people with disabilities will be surveyed. Every participant will be surveyed on their satisfaction with education received through the CBR program each time, with the hope that more than 80% of the participants are satisfied.

The item on economic independence is for surveying occupational rehabilitation and the employment rate of persons with disabilities. Recipients of occupational rehabilitation and their employment rates before and after CBR will be surveyed and compared using Jeju labor statistics data.

The item of inclusion, participation in family and community life, is to investigate the entry rate into organizations for persons with disabilities. By comparing individuals with disabilities who joined such groups before and after the project, the extent of their local community involvement can be ascertained.

The item of leadership roles in the community is about the promotion of self-care groups. How many representatives of those groups there are and how often such members are recommended as members of the CBR committee will be analyzed.

In the item of Participation in/ownership of programs, the participation rate of

participants with disabilities will be assessed. We will also be interested in seeing whether the participants can present their opinion on the programs from planning to general matters and how deeply they are involved in the programs. To this end, the number and kinds of programs should be investigated.

In the second domain, the item of program planning and management is for assessing the diversity and comprehensiveness of programs and joint programs. In order to ensure the diversity of programs, it should be checked whether the integrated health and welfare service center are manned with rehabilitation specialists, heads of public health centers, or other professionals. The item of health-welfare connection is to analyze the constitution of the CBR council. The item of financial and human resource management covers team composition and staff formation. The item on Team composition is for checking whether the integrated health and welfare service centers are manned with rehabilitation specialists, heads of public health centers, or other professionals. The staff formation questionnaire item is for investigating whether public health centers employ public officials in charge of social welfare, and if so, whether they are assuming their exclusive responsibilities. The 'Training' item is about training of rehabilitation managers and volunteers. It is designed to assess the frequency of training, the number of trainees who completed training, and their training team.

The item on attitudes and involvement in the third domain is to better understand the attitude the disabled and their families toward CBR programs. "Community attitudes and inclusion of PWD" is to assess how much effort the local community is making to change its attitude toward persons with disabilities and how much support the disabled feel they get from the community.

The third section of the questionnaire/evaluation is composed of items on community campaigns, social support, and the right to mobility; the community campaign items will survey the awareness of ordinary people about people with disabilities and volunteer service activities. The evaluation will be conducted twice-both before and after the implementation of CBR programs.

The measurement of social support utilizing the Medical Outcomes Study and Social Support Survey by Jang (2004) is composed of 20 items over the following areas: tangible support, affectionate support, positive social interaction, and emotional and informational support. The sum of scores in each area is between 0 and 100. The item on the right to mobility is for measuring changes in convenience facilities for people with disabilities and vehicles for the disabled.

In the fourth domain, accident death rates and rates of prevalence will be investigated. The item on "Education" is for surveying those people who are exposed to dangerous factors about their participation in safety precautions and prevention education programs. In particular, we are interested in learning about the frequency of disease control education for patients with high blood pressure and their rate of participation.

Table 20. Evaluation of the CBR in Jeju-do

	Evaluation Items	Evaluation indicator	Subject	Method of data collection and evaluation standards
The first domain	Functional independence	FIM	Persons with disability	Comparing FIM before and after implementing programs
	Education	Theme and contents of education	Persons with disability	Satisfaction survey
			Family	
	Economic independence	The rate of occupational rehabilitation and employment	2nd Data	Comparing trainees before and after implementing programs
				Comparing employment rate before and after implementing programs
	Inclusion, participation in family and community life	The rate of entry into groups for the disabled	Persons with disability	Comparing persons with disabilities before and after implementing programs
	Leadership roles in the community	Activation of self-help groups	Organization	Investigate the number of leaders of groups for the disabled appointed as committee members
	Participation in/ownership of programs.	Participation in programs	Persons with disability	Investigate whether they are participated in planning
				The kinds and number of programs actually attended
The second domain	program planning and management	Diversity of programs	Integrated health and welfare service center	Checking whether there is a rehabilitation worker, head of a public health center, other professionals in the team

The second domain	program planning and management	Connection of health and welfare	Analysis of the second data	Analysis of the constitution of the CBR council and the number of request
	Financial and human resource management	Team constitution	Integrated health and welfare service center	Checking whether there is a rehabilitation worker, head of a public health center, and other professionals on the team
		Staff constitution	Public official in charge of social welfare	Checking whether a social worker is working in a public health center
	Training	Training for rehabilitation managers and volunteers	Rehabilitation manager	Evaluation of the frequency of training, the number of trainees and the training time
			Volunteers	
	Sustainability	Sustainability of CBR management systems	Program details	Survey of program details in accordance with CBR
The third domain	Family attitudes and involvement	Satisfaction	Persons with disability	Survey of satisfaction with CBR services
			Family of a person with disabilities	
	Community attitudes and inclusion of PWD	Community Campaign	Residents	Comparing awareness about persons with disabilities and volunteer service for them before and after implementing programs
		Social Support	Persons with disability	Comparing social support before and after implementing programs
		Guarantee of the Right to mobility	2nd data	Change of convenient facilities and parking lots exclusively for persons with disabilities
The fourth domain	Health Index	Accident death rate	2nd data	Survey whether the goals for accident death rates were 90% realized
		Prevalence rate	2nd data	Comparing Prevalence of high blood pressure before and after implementing programs
	Education	Safety precaution education	Population exposed to danger	Investigation of the frequency of education and the participation rate
		Disease management education	Patients with high blood pressure	

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