

Disability Evaluation in Japan

To examine the current state and social ramifications of disability evaluation in Japan, public data from *Annual Reports on Health and Welfare 1998-1999* were investigated. All data were analyzed based on the classification of disabilities and the effects of age-appropriate welfare services, which have been developed through a half-century of legislative efforts to support disability evaluation. These data suggest that disability evaluation, while essentially affected by age and impairment factors at a minimum, was impacted more by the assistive environment for disabilities. The assistive environment was found to be closely linked with the welfare support system related to a global assessment in the field of community-based rehabilitation.

Key Words : Disability Evaluation; Welfare Support; Community-based Rehabilitation (CBR)

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INTRODUCTION

Disability evaluation typically requires an assessment of the activities of daily life (ADL) and instrumental ADL (I-ADL). In Japan, a physical disability certificate is based on the patient's ADL and I-ADL grades.

The independent ADL scale, which is widely considered within the field of rehabilitation medicine to be a particularly important component in the evaluation (1, 2), considers both individual and universal factors (Fig. 1). Assessment is performed by analyzing the results of test activities relating the patient's personal life. For example, adult independence refers to a person who does not require external care in daily life, whereas child independence includes care within the family and school life. Such personal factors have been nurtured through development in the community and belong to the community's values and customs. The universal factors, on the other hand, are measured against the common rule of human-beings. Furthermore, disability evaluation should also include assessment for the supporting system in the community-based rehabilitation (CBR) and other problems. These other problems, which relate to objective signs, the timing of evaluation and multiple impairments, are still under fierce debate.

Generally, it is accepted that disabilities differ from impairment to impairment. In addition, the needs of patients vary by disability types. As such, Japan officially recognizes three forms of the identification booklet for the disabled, one for physical disability, one for mental disability, and another for psychological disability.

MATERIALS AND METHODS

During the course of this investigation, several reports issued by the Ministry of Health, Labor and Welfare of Japan, including the *Outline of the Systems and Basic Statistics in Annual Reports on Health and Welfare 1998-1999 Social Security and National Life from white paper and reports* were reviewed (3). Data concerning the annual change in the number of people with physical disabilities by type and age per 1,000 people were used to analyze total disability evaluation, while the annual change in the number of children with physical disabilities by type and age was used to analyze child disability evaluation. The number of people with physical and mental disabilities was used to determine the relationship between welfare facilities and the home in the community. Finally, several data related to the elderly were used to anticipate bigger problems in future.

RESULTS

The results of this study, as provided in detail in the appendices to this report, are summarized as follows. Recent trends in the last 10 yr suggest a sharp rise in physical disabilities and internal disorders among the elderly (Table 1, 2). Data on children by type (Table 3) and age (Table 4) shows an increase in the rate of internal disorders and young children with physical disabilities. Data on the overall number of people with disabilities (Table 5) reveals that 28.5% of patients in health care facilities have mental retardation, whereas only

5% have physical disabilities. Data suggesting bigger future problems for the elderly are also presented in Fig. 2 and Table 6 and 7. Finally, the Japanese definition of CBR is presented in Fig. 3, with a framework of CBR shown in Fig. 4.

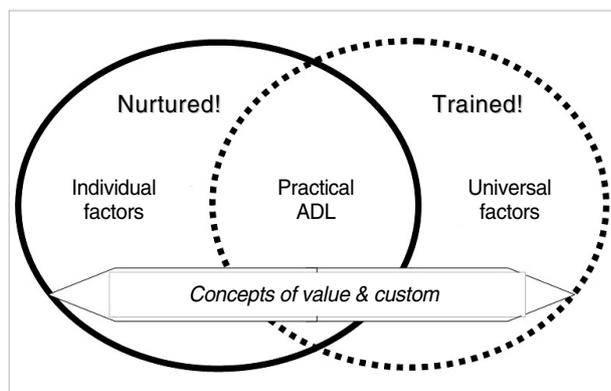


Fig. 1. Practical activities of daily life (ADL).

DISCUSSION

In Japan, disability is categorized under three identification booklets: 1) physical disability, which is classified by four subgroups, 2) mental disability, and 3) psychological disability.

The classification of the physically disabled subgroups (Table 1-4) was very useful for determining the problems for government policy on welfare and public health. The increasing rate of internal disorders within the physically disabled has become a major theme for following global welfare services in the future. A multi-system for evaluating disabilities has resulted in many welfare services, depending on the various kinds of disabilities. However, the achievements of the welfare system, based on different types of disabilities, have led to a complex or confused service system. The system has also been affected yearly by the changing social community around persons with disabilities. For example, the data showed a sharp rise in the elderly with disabilities. Accordingly, the increasing ratio of the elderly population has prompted the devel-

Table 1. Annual change in number of people with physical disabilities by type of disabilities

(Unit: 1,000 people)

Year	Total number	Visual disabilities	Auditory and speech disabilities	Motional disabilities	Internal disabilities	(Included in left column) multiple disabilities
Estimate						
1951	512	121	100	291		
1955	785	179	130	476		
1960	829	202	141	486		44
1965	1,048	234	204	610		215
1970	1,314	250	235	763	66	121
1980	1,977	336	317	1,127	197	150
1987	2,413	307	354	1,460	292	156
1991	2,722	353	358	1,553	458	121
1996	2,933	305	350	1,657	621	179

Source: Department of Health and Welfare for Persons with Disabilities, Minister's Secretariat, MHW, "Survey on the Actual Status of People with Physical Disabilities".

Table 2. Annual change in number of people with physical disabilities by age (per 1,000 people)

Year	Total number	18-19 yr old	20-29 yr old	30-39 yr old	40-49 yr old	50-59 yr old	60-64 yr old	65-69 yr old	70 yr old and above
1955	14.4	5.3	7.1	14.5	16.0	20.6	25.4	29.4	
1960	13.7	5.2	5.4	10.0	16.0	20.0	28.2	39.1	
1965	15.7	3.9	4.1	7.1	15.8	24.8	38.9	63.9	
1970	17.9	3.3	4.9	7.7	15.8	29.7	40.9	63.7	
1980	23.8	3.5	4.9	7.0	16.0	33.7	55.8	87.6	
1987	26.7	2.2	4.9	9.1	15.7	31.7	56.9	88.0	
1991	28.3	3.9	4.1	8.3	13.4	28.9	54.5	90.4	
1996	28.9	2.3	3.8	7.0	12.2	26.2	49.6	94.6	

Source: Department of Health and Welfare for Persons with Disabilities, Minister's Secretariat, MHW, "Survey on the Actual Status of People with Physical Disabilities".

Number of population with physical disabilities per 1,000 people 18 yr old and at the times shown in "National Census" and "Population Estimate" of Statistics Bureau, Management and Coordination Agency.

1955, 1960, 1965, 1970: population in Census. 1980: Estimate as of October 1, 1979. 1987: Estimate as of February 1, 1987. 1991: Estimate as of November 1, 1991. 1996: Estimate as of November 1, 1996.

opment of a new disability evaluation related to practical ADL. To cite another example, mental disability has been evaluated from infancy because of a lack of social response. As such, most people with mental disability usually tend to receive the identification booklet up to the age of 18 yr. However, Table 5 shows that, in Japan, adults with mental disability tend to be less adaptive to the community than those with

physical disability. Therefore, the Ministry of Health, Labor and Welfare of Japanese Government has started to rearrange many welfare services to be more suitable to a small community around persons with disabilities.

Moreover, the concept of preventing disabilities is emphasized not only in rehabilitation medicine, but also in CBR, indicating that disability evaluation needs another factor of

Table 3. Annual changes in number of children with physical disabilities by type of disability

(Unit: people)

Year	Total number	Visual disabilities	Auditory and speech disabilities	Motional disabilities	Internal disabilities	Multiple answers accepted (included in left column)
Estimate						
1965	116,600	14,400	26,000	76,200		41,100
1970	93,800	7,000	23,700	57,500	5,600	12,600
1987	92,500	5,800	13,600	53,300	19,800	6,600
1991	81,000	3,900	11,200	48,500	17,500	6,300
1996	81,600	5,600	16,400	41,400	18,200	3,900

Source: Department of Health and Welfare for Persons with Disabilities, Minter's Secretariat, MHW, "Survey on the Actual Status of People with Physical Disabilities".

Table 4. Number of children with physical disabilities by age

(Unit: people, %)

Year	Total number	0-4 yr old	5-9 yr old	10-14 yr old	15-17 yr old	Age unknown
1991	81,000 (100.0)	12,100 (14.9)	23,300 (28.8)	24,700 (30.5)	18,900 (23.3)	1,900 (2.3)
1996	81,600 (100.0)	17,700 (21.7)	21,100 (25.9)	25,800 (31.6)	15,500 (19.0)	1,400 (1.7)

Source: Department of Health and Welfare for Persons with Disabilities, Minter's Secretariat, MHW, "Survey on the Actual Status of Children with Physical Disabilities".

Figures in parenthesis represent the ratio to total number.

Table 5. Number of people with disabilities (estimate)

(Unit: 10,000 people)

	Total number	Number of people at home	Number of people in facilities
Children/adults with physical disabilities	317.7	301.5 (95%)	16.2 (5%)
Children with physical disabilities (less than 18 yr old) Source 1	9.0	8.2	0.8
Adults with physical disabilities (18 yr old and above) Source 2	308.7	293.3	15.4
Children/adults with mental retardation Source 3	41.3	29.7 (71.9%)	11.6 (28.1%)
Children with mental retardation (less than 18 yr old)	9.6	8.6 (89.6%)	1.1 (10.4%)
Adults with mental retardation (18 yr old and above)	30.1	19.5 (64.8%)	10.5 (35.2%)
Age unknown	1.6	1.6	0.0
People with mental disorders Source 4	approx. 217	182 (83.9%)	34.8 (16.4%)

Sources: 1. People living at home: Department of Health and Welfare for Children with Disabilities, Minter's Secretariat, MHW, "Survey on the Actual Status of People with Physical Disabilities" 1996. People in facilities: Statistics and Information Department, Minter's Secretariat, MHW, "Survey of Social Welfare Institutions" 1996 etc. 2. People living at home: Department of Health and Welfare for Children with Disabilities, Minter's Secretariat, MHW, "Survey on the Actual Status of People with Physical Disabilities" 1996. People in facilities: Statistics and Information Department, Minter's Secretariat, MHW, "Survey of Social Welfare Institutions" 1996 etc. 3. People living at home: Department of Health and Welfare for Children with Disabilities, Minter's Secretariat, MHW, "Basic Survey of the Policy of the Welfare of Children (Adults) with Mental Retardation" 1995. People in facilities: Statistics and Information Department, Minter's Secretariat, MHW, "Survey of Social Welfare Institutions" 1995 etc. 4. MHW's estimate (except children/adults with mental retardation), 1996.

Number of children/adults with physical disabilities in facilities represent those in facilities for blind children, facilities for children with auditory and speech disabilities, facilities for children with motional disabilities, hospital-homes for children with severe mental and physical disabilities, rehabilitation facilities for people with physical disabilities etc.

Number of children/adults with mental retardation in facilities represent those in facilities for children with mental retardation, facilities for autistic children, hospital-homes for children with severe mental and physical disabilities, national sanatoria (wards for children with severe mental and physical disabilities), rehabilitation facilities for people with mental retardation, sheltered workshops for people with mental retardation, etc.

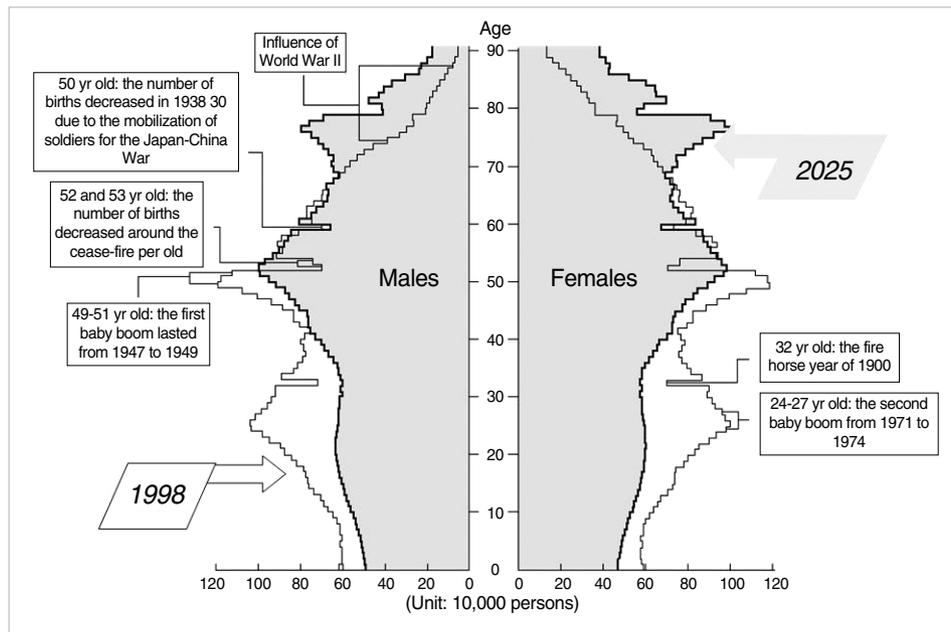


Fig. 2. The population pyramid in Japan. Sources: 2025, National Institute of Population and Social Security Research “Population Projection for Japan (estimated January 1997)”; 1998, Management and Coordination Agency “Population Projection” as of October 1, 1998. □ represents the figures for 1998 and ▒ represents the figures for 2025.

Table 6. Comparison between the elderly and others

	Elderly people (A)	Other people (B)	Ratio (A)/(B)
Medical examination fee per person (annual, ¥)	736,000	149,000	5.0 times
Patient ratio (No. of medical examinations in a year/person)	16.2	7.1	2.3 times
Length of stay per case (days)	4.1	2.4	1.7 times
Medical examination fee per day (¥)	11,100	8,600	1.3 times
Inpatient drug ratio (%)	12.8	11.4	1.1 times
Outpatient drug ratio (%)	42.8	33.9	1.3 times
Average length of stay for the released patients (days)	63.5	28.3	2.2 times

Source: Medical examination fee per person, patient ratio, and length of stay per case are the total of inpatients, non-inpatients and dental care, and are based on the survey of MHW (FY 1996). Statistics and Information Department, Minister’s Secretariat, MHW, “1998 Survey of National Medical Care Insurance Services” is used for Inpatient drug ratio and outpatient drug ratio, and “1999 Survey of Patients” is used for Average length of stay for the released patients.

Patient ratio: The number of statements of medical fee payments for 1 yr per insured (A sheet of statement is made for each medical institution every month. When the insured has a medical treatment at a certain institution every month, 12 statements will be created. When the insured uses 2 different medical institutions in the same month, 2 statements will be prepared for the month.). This is an index to show the frequency that the insured uses medical institutions in 1 yr.

Length of stay per case (days): The average number of days per statement of medical fee payments (Number of hospital days for inpatients, and number of days commuting to the institution as outpatient.). This is an index to show how many days of medical treatments that the insured received in 1 month.

In order that persons with disabilities or the elderly, as well as their families, may live safely and vividly throughout their lifetime in the place where they have long lived with others, all people, facilities and systems concerned with medicine, health, welfare and life should act in cooperation based on the concept of rehabilitation.

Fig. 3. Definition of community-based rehabilitation (CBR) in Japan.



Fig. 4. Framework of CBR (rehabilitation resource+system).

support system based on their community. Thus, it is important to think about the disability evaluation according to the characteristics of age, impairment and assistive environment. In the field of CBR, disability evaluation has recently become important for measuring the effects of rehabilitation treatment in medical insurance and decision of the grade of wel-

Table 7. Future estimation of the bedridden elderly and elderly persons suffering from dementia (Unit: 10,000 people)

Category	1993	2000	2010	2025
Physically weak	100	130	190	260
Suffering from dementia and needing long-term care (except for the bedridden)	10	20	30	40
Bedridden (including bedridden and suffering from dementia)	90	120	170	230
Total (elderly needing long-term care, etc.)	200	280	390	520
Population of elderly persons (aged 65 or over)	1,690 (14.1%)	2,170 (18.1%)	2,770 (23.1%)	3,240 (28%)

fare service volume in Japan.

While the first and second groups have been historically well-established without any disagreement on the classifications of disability type, the third group concerning psychological disability has recently been questioned with respect

to the visibly less apparent disabilities relating to cognition, memory, attention, emotion, and social behavior after traumatic head injury. Although the new system to evaluate and support such a disability group is under development throughout the country, problems with classification continue to be debated.

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