

การพัฒนามาตรฐานรายการอุปกรณ์และราคาอ้างอิงของอุปกรณ์เครื่องช่วยคนพิการ
ตามระบบหลักประกันสุขภาพถ้วนหน้า (บัตรทอง)

Development of Lists and Referred Prices on Assistive Devices for Persons with
Disabilities: A Supplementary System of the National Health Security System in Thailand

กมลรัตน์ เทอร์เนอร์* กาญจนา จันทร์ไทย** ประกาย จิโรจน์กุล*** ชุติกาญจน์ หฤทัย****

Abstract

The “Development of Lists and Referred Prices on Assistive Devices for Persons with Disabilities: A Supplementary System of the National Health Security System in Thailand” was a research and development study conducted to develop the lists and referred prices of assistive devices which will be used by the National Health Security Office (NHSO) in the provision of devices for persons with disability in Thailand. The study was divided into 3 phases, namely: Phase 1: Drafting the lists and referred prices of devices by reviewing the existing lists of the NHSO, developed by Sirindhorn National Medical Rehabilitation Center (SNMRC), and updating them with current information from assistive device sales agents; Phase 2: Commenting on the draft by 43 participants comprising representatives from the association of persons with disabilities, health professions, the Disabled Persons’ Rights Protection Sub-Committee, sales agents, relevant scholars and experts on five types of disabilities; and Phase 3: Analyzing and synthesizing the final draft and sending it for validation by 15 experts on five types of disabilities.

The study revealed that the lists of assistive devices identified in the lists of the NHSO and SNMRC covered only for Types 1-3 of the disable. None of assistive devices for Types 4 and 5 of the disable was clearly identified. The findings of this study identified 4 categories (22 items) of assistive devices listed for Type 1 of the disable (vision impairment); 3 categories (9 items) of assistive devices listed for Type 2 of the disable (hearing impairment); 10 categories (113 items) of assistive devices listed for Type 3 of the disable (physical and movement disability); no specific device listed for Type 4 of the disable (mental and behavioral impairment); and 4 categories (24 items) for Type 5 of the disable (cognitive and learning disability) who also have physical and movement disability. All these items were already identified in the list of the devices for physical and movement disability. From these findings, the lists and referred prices should be used by the NHSO as the fixed standard price for the system developed to facilitate the provision of assistive devices countrywide.

* Ph.D., Director Boromarajonani College of Nursing, Nakhonratchasima

** Ph.D., Director of Nursing Bureau, ***Ph.D., Assistant Professor Faculty of Nursing, Suan Dusit Rajabhat University

**** Deputy Director of Nursing Bureau.

บทคัดย่อ

การวิจัย เรื่อง การพัฒนามาตรฐานรายการอุปกรณ์และราคาอ้างอิงของอุปกรณ์เครื่องช่วยคนพิการ ตามระบบหลักประกันสุขภาพถ้วนหน้า (บัตรทอง) เป็นการวิจัยและพัฒนา มีวัตถุประสงค์เพื่อทบทวนรายการอุปกรณ์และราคาอ้างอิงของอุปกรณ์เครื่องช่วยคนพิการ ตามบัญชีรายการอุปกรณ์ของสำนักงานหลักประกันสุขภาพแห่งชาติ ขั้นตอนการวิจัยและพัฒนา แบ่งออกเป็น 3 ระยะ ได้แก่ ระยะที่ 1 ยกร่างรายการอุปกรณ์เครื่องช่วยคนพิการและราคาอ้างอิงโดยทบทวนรายการที่มีอยู่เดิมของสำนักงานหลักประกันสุขภาพแห่งชาติ ที่ได้ร่างไว้โดยศูนย์สิทธิบัตรเพื่อการฟื้นฟูสมรรถภาพทางการแพทย์แห่งชาติ และเพิ่มเติมข้อมูลให้เป็นปัจจุบัน ระยะที่ 2 วิพากษ์ยกร่างรายการอุปกรณ์เครื่องช่วยคนพิการโดยผู้ทรงคุณวุฒิ 43 คน ประกอบด้วย ตัวแทนองค์กรคนพิการ คณะอนุกรรมการและคณะทำงานประสานสิทธิประโยชน์สำหรับคนพิการ ผู้จัดจำหน่าย แพทย์เวชศาสตร์ฟื้นฟู ผู้ให้บริการ นักวิชาการที่เกี่ยวข้อง และผู้ทรงคุณวุฒิในความพิการทั้ง 5 ประเภท และระยะที่ 3 วิเคราะห์และสังเคราะห์รายการอุปกรณ์เครื่องช่วยคนพิการ โดยยกร่างสุดท้ายมีการตรวจสอบโดยผู้ทรงคุณวุฒิในความพิการทั้ง 5 ประเภท จำนวน 15 คน

ผลการวิจัย พบว่า รายการอุปกรณ์เครื่องช่วยคนพิการที่มีการกำหนดไว้แล้วอย่างชัดเจนตามบัญชีรายการของอุปกรณ์ของสำนักงานหลักประกันสุขภาพแห่งชาติ และศูนย์สิทธิบัตรเพื่อการฟื้นฟูสมรรถภาพทางการแพทย์แห่งชาติ มีรายการอุปกรณ์เครื่องช่วยคนพิการ ประเภทที่ 1 – 3 เท่านั้น โดยพบว่ายังไม่มีกำหนดรายการอุปกรณ์สำหรับคนพิการประเภทที่ 4 และ 5 อยู่ในบัญชีรายการอุปกรณ์ใดมาก่อน สำหรับการพัฒนามาตรฐานรายการอุปกรณ์และราคาอ้างอิงของอุปกรณ์เครื่องช่วยคนพิการ เสนอรายการอุปกรณ์เครื่องช่วยคนพิการ 1) ประเภทที่ 1 สำหรับความพิการทางการมองเห็น จำนวน 4 ประเภท 22 รายการ 2) ประเภทที่ 2 สำหรับความพิการทางการได้ยินและการสื่อความหมาย มีจำนวน 3 ประเภท 9 รายการ 3) ประเภทที่ 3 สำหรับความพิการ

ทางกายหรือการเคลื่อนไหว มีจำนวน 10 ประเภท 113 รายการ 4) ประเภทที่ 4 สำหรับความพิการทางจิตใจหรือพฤติกรรม ไม่มีรายการอุปกรณ์ที่กำหนดไว้โดยเฉพาะเจาะจงในขณะนี้ และ 5) ประเภทที่ 5 สำหรับความพิการทางสติปัญญาหรือการเรียนรู้ มีรายการอุปกรณ์เครื่องช่วยคนพิการที่มีปัญหาความพิการทางกายหรือการเคลื่อนไหวร่วมด้วย มีจำนวน 4 ประเภท 24 รายการ ซึ่งเป็นรายการที่ปรากฏอยู่แล้วในบัญชีรายการอุปกรณ์ของคนพิการทางกายหรือการเคลื่อนไหว (ประเภทที่ 3) จากข้อค้นพบนี้ ควรนำรายการและราคาอ้างอิงนี้ไปใช้ในระบบการสนับสนุนอุปกรณ์เครื่องช่วยคนพิการ

Background of the Study

Thailand has a population of approximately 64 million while the number of persons with disability is 1,100,762, which represent 1.8 percent of the population (UNESCAP, 2005). Disabilities were classified into 5 types as 1) visual disability, 2) hearing and communication disability, 3) physical disability, 4) mental/behavior disability, and 5) intellectual and learning disability. Thailand started drafting the Rehabilitation of Disabled Persons Act in 1979 to protect the rights of persons with disabilities and provide a standard for workers. However, health services for improving quality of life of persons with disabilities in Thailand had not been systematically operated until the Rehabilitation of Disabled Persons Act A.D. 1991 (B.E. 2534) was introduced. In 1991, 12 years later, the Act finally became law. This Act enhances and protects the rights of persons with disabilities and provides development and rehabilitation for them. Furthermore, the Act is particularly focused on employment of persons with disabilities. With this, persons with disabilities have the rights to receive services such as

medical, educational, and occupational rehabilitation, employment and community support. Registration must be done in order to receive such services (JICA, 2008).

Ministerial regulations were issued subsequently in accordance with the Rehabilitation of Disabled Persons Act. The Ministerial Regulation of the Ministry of Public Health Issue 3 (B.E. 2537) was issued in response to the Rehabilitation of Disabled Persons Act to assure coverage of health services for persons with disabilities. The content of the Ministerial regulation was divided into 13 items including 1) diagnosis, laboratory and special tests, 2) counseling, 3) medication, 4) surgery, 5) rehabilitation, 6) physical therapy, 7) occupational therapy, 8) behavioral therapy, 9) psychotherapy, 10) social services and social therapy, 11) speech therapy, 12) rehabilitation for hearing and communication, and 13) provision of assistive devices (Committee for Rehabilitation of Persons with Disability, 1993).

Item 13 of the Ministerial Regulation states that if a person with disability wants to obtain medical rehabilitation using prosthetic, additive, or assistive devices, health care settings under the jurisdiction of the Ministry of Public Health or health care settings of any ministries, bureaus, departments, local administrative government organizations, or government enterprises as identified in the announcement of Ministry of Public Health, shall provide the required devices. If any of the mentioned organizations do not have the required devices, arrangement with Sirindhorn National Medical Rehabilitation Center (SNMRC) shall be made in order to obtain the devices for the disabled persons.

In 2002, the Universal Coverage (UC) Scheme was introduced to make health services available and accessible to the whole population of Thailand. The cost of Items 1-12 has been supported from the UC project whilst the cost of Item 13 was supported from non-UC budget from 2002 to 2003. Nevertheless, in the fiscal year 2004 and the following years the budget was not clearly set. There was inadequacy in systemic management as health services for persons with disability are under the Rehabilitation of Disabled Persons Act B.E. 2534 and the Act of Universal Coverage B.E. 2545. The minister of the Ministry of Public Health therefore, appointed a committee for following up and cooperation of health policy for persons with disabilities.

According to the Rehabilitation Act A.D. 1991, registered persons with disabilities are entitled to receive free medical rehabilitation services from hospitals under Ministry of Public Health, Ministry of University Affairs, Ministry of Defense, Ministry of Interior, and the Bangkok Metropolitan Administration. In Thailand, only large scale hospitals are able to provide medical rehabilitation services with skilled staff and equipments. The three major hospitals providing medical rehabilitation are 1) Lerdsin Hospital, Ministry of Public Health, 2) King Mongkut and Veterans General Hospital, Ministry of Defense, and 3) Police Hospital, Ministry of Interior.

The Sirindhorn National Medical Rehabilitation Center (SNMRC) is the only a hospital able to provide inclusive rehabilitation services. SNMRC is also providing assistive devices for persons with disabilities and trying to standardize the devices as well. Assistive devices

in Thailand have been primarily provided by NGOs through community-based rehabilitations (CBR). CBR has been playing a very significant role in Thailand as an effective approach to improve rural accessibility and provide assistive devices (JICA, 2008).

To ensure that the persons with disabilities are able to access the benefits as intentioned in the UC scheme, the committee of the National Health Security Office has agreed at the meeting of 10/B.E. 2548, dated 26 September 2005, to allocate a budget of 4 baht per head of the population in the UC which amounts to 188 million Thai baht for persons with disabilities. Eighty per cent of this amount is for rehabilitation services, 15 per cent for assistive devices, and 5 per cent for training the disable or their caregivers.

The National Health Security Office has further attempted to develop better systems to facilitate the disabled persons to access the provision of assistive devices by developing a system that any health care setting can provide assistive devices and reimburse from the National Health Security Office through an electronic claiming system. Currently, there are two sources of lists for assistive devices, the list set up for reimbursing from the National Health Security Office, and the list set by SNMRC for purchasing assistive devices to distribute to other health care settings. To establish a comprehensive electronic claiming system, however, there is a need to develop national standard lists and referred prices on assistive devices. The National Health Security Office, therefore, appointed the researchers to conduct a research and development project to develop standard lists and referred prices on

assistive devices for persons with disability.

General Objective

This research and development study was conducted to develop lists and referred prices of assistive devices which will be used by the National Health Security Office (NHSO) in the provision of devices for persons with disabilities in Thailand.

Specific Objectives

The objectives of this study were to:

1. review the lists and referred prices of assistive devices for persons with disabilities according to the lists of the National Health Security Office dated 30 March B.E. 2549 and Sirindhorn National Medical Rehabilitation Center, and
2. develop a draft of standard lists and referred prices of assistive devices for persons with disabilities.

Scope of the Study

1. The revision of assistive device lists in this study included lists and referred prices of assistive devices for persons with disabilities according to the lists of the National Health Security Office dated 30 March B.E. 2549 and Sirindhorn National Medical Rehabilitation Center.
2. The lists of assistive device for persons with disabilities collected from traders were gathered from the information given by the traders participating and willing to provide information in the format and timeframe designed by the researchers. The lists of the traders or sales agents were obtained from the document of the

SNMRC, recommendations given by experts and representatives of the association of persons with disabilities, and information on internet.

3. The lists formulated in this study were synthesized from the information from 1 and 2 above which were approved by experts. The list may not cover assistive device lists of other organizations such as educational institutions, non-government organizations or, other non-profit foundations.

Limitation of the Study

The lists of assistive devices and referred prices investigated in this study were conducted under the current socioeconomic context and technology. Thus they may be able to be used as a reference for a fixed period of time. Whenever these contexts change, there will be a need to revise the lists periodically.

Operation Terms

Persons with disability or sometimes is called the disabled persons in this study means “an individual who is limited by function and/or ability to conduct activities in daily living and to participate in society through methods used by persons without disabilities due to visual, hearing, mobility, communication, psychological, emotional, behavioural, intellectual or learning impairment, and has special needs in order to live and participate in society as to others” as identified in the Ministerial Order. They are divided into 5 types as follows:

1. Type 1 is for persons with visual disability
2. Type 2 is for persons with hearing and

communication disability

3. Type 3 is for persons with physical and movement disability

4. Type 4 is for persons with mental/behavior disability

5. Type 5 is for persons with intellectual and learning disability

Methodology

The research method used to achieve the objectives of this study was a research and development design with qualitative approach.

Sample

The sample used in this project included three groups of people as follows:

1. Forty three participants of a meeting organized for critiquing the draft of standard lists and referred prices of assistive devices for persons with disabilities who were representatives from the association of persons with disabilities, health care providers from health care organizations, subcommittee members and a working group for the rights and benefits of persons with disabilities, assistive device traders, physicians, and scholars in the field of 5 types of disabilities;

2. Fifteen experts who were medical rehabilitation doctors and scholars in the field of 5 types of disabilities for validating content and appropriateness of a draft of standard lists and referred prices of assistive devices for persons with disability;

3. Four experts involved with administration and responsibility for the provision of care of persons with disability in Type 4, mental and behavioral impairment, and Category 5, cognitive

and learning disability.

Research Instruments

The research instruments of this study comprised the following:

1. A digital format of the draft of standard lists and referred prices of assistive devices for persons with disabilities designed by the researchers. This draft was developed from the documents of the SNMRC, the lists of NHSO, and the information provided by the sales agents participating in the study.

2. The criteria for analyzing the lists of the devices developed by the researcher team and were approved by the officers of the NHSO. These criteria were provided to the experts for using as a framework in checking the draft of standard lists and referred prices.

Research and Development Process

The study was divided into 3 phases including Phase 1: drafting the lists of assistive devices for persons with disabilities, Phase 2: commenting on the draft by experts, and Phase 3: analyzing and synthesizing the lists of assistive devices.

Phase 1: *drafting the lists of assistive devices for persons with disabilities*

Phase 1 of the study included the following activities:

- 1.1 reviewing lists, attributes and referred prices of assistive devices for persons with disabilities identified in the documents of the SNMRC and other health care settings,

- 1.2 collecting lists of sales agents, who sold assistive devices for persons with disabilities,

- 1.3 gathering lists of experts, associations

or organizations for the disabled persons and medical specialists in all types of disabilities,

- 1.4 writing the first draft of the lists of assistive devices for persons with disabilities including their attributes and referred prices. This draft, however, comprised the lists of assistive devices for only 3 types of disabilities. They were 1) visual disability, 2) hearing and communication disability, and 3) physical and movement disability.

Phase 2: commenting on the draft by experts

Phase 2 of the study included the following activities:

- 2.1 arranging a meeting among stakeholders in order to get them make comments on the first draft of the lists developed in Phase 1,

- 2.2 writing the second draft of the lists according to the comments from the meeting in 2.1, and

- 2.3 making the list of 15 experts who would validate the contents of the second draft of the lists in Phase 3. The name list including medical rehabilitation doctors, educators, and representatives of persons with disabilities came from consensus of the meeting.

Phase 3: *analyzing and synthesizing the lists of assistive devices*

Phase 3 of the study included the following activities:

- 3.1 sending the second draft to the experts in 2.3 for validating the contents and appropriateness,

- 3.2 collecting and processing the comments given by the experts,

- 3.3 arranging a meeting with different experts to finalize the comments and writing a final draft, and

- 3.4 presenting the final draft to NHSO.

Data Analysis and Synthesis

The process of data analysis included the following:

1. Collating the draft of the lists of assistive devices for persons with disabilities from the lists of the National Health Security Office, Sirindhorn National Medical Rehabilitation Center, and traders;

2. Analyzing and synthesizing the draft of the lists of assistive devices for persons with disabilities Types 1, 2, and 3 using comments given by experts who were specialized doctors, scholars and representatives of persons with disabilities; and

3. Analyzing and synthesizing the draft of the lists of assistive devices for persons with disabilities Types 4 and 5 by analyzing the data from interviewing the experts involved with administration and responsibility for the provision of care of persons with disability in Type 4 and Type 5.

Results and Discussion

The study revealed that the lists of assistive devices identified in the lists of the National Health Security Office and SNMRC covered only Types 1, 2, and 3 of disability. None of assistive devices for Types 4 and 5 of disability were clearly identified. The development of a draft of standard lists and referred prices of assistive devices for persons with disability can be summarized as follows:

1. *A list of assistive devices for persons with disability Type 1 (visual disability)*

There were 4 categories (22 items) of

assistive devices listed for Type 1 disability (vision disability). They were classified in the following:

- 1.1 Category 1: eyeballs, cornea, and intraocular lens: Seven items of devices were included in this category. These were eye prosthesis, orbital implant, integrated orbital implant, orbital implant orbit, corneal prosthesis, foldable intraocular lens, and unfoldable intraocular lens. Indeed they were all listed as medical instruments for operation or treatment.

- 1.2 Category 2: glasses and magnifying lens: This category comprised 11 items of assistive devices. One item had already existed on the list of the SNMRC whilst 9 items was newly introduced from this study.

- 1.3 Category 3: field-glasses: There were two items, monocular and binoculars in this category. Both items were newly suggested to the list of assistive devices that can be reimbursed.

- 1.4 Category 4: walking canes: Two items of walking canes were included in this category.

These devices were retained in the list because they are necessary for the persons' daily living, their occupations, or image. Some devices, though expensive, were listed for an increase of quality of life or reduction of deterioration and severity of impairment. For example, UV filtering glasses were listed in Category 2 as they help slowdown visual damage for those who have poor vision. Prisms assisting refraction of the light were useful for those who have problem with visual field. Some items of the devices offered by the traders were excluded for a number of reasons: 1) high cost, 2) low necessity and can be replaced by another low cost device, 3) they were not

considered as assistive devices, and 4) risk for complications.

2. A list of assistive device for persons with disability Type 2 (hearing and communication disability)

There were 3 categories (9 items) of assistive devices listed for Type 2 disability (hearing and communication disability).

2.1 Category 1: ear rims or helical rims and ear base: This category consisted of two items named ear rims or helical and ear base.

2.2 Category 2: hearing aids: There were six items of hearing aids listed as assistive devices that can be reimbursed from the National Health Security System. These included 1) bone conduction, 2) hearing aids which came in a box style for those with hearing disability at moderate to high levels, 3) behind the ear with analog for those with hearing disability at low to high levels, 4) behind the ear with digital for those with hearing disability at moderate to very high levels, 5) tailor made hearing aids, and 6) hearing aids for children under 10 years old.

2.3 Category 3: speech assistive device (electrolarynx): An item of speech assistive device was listed for those who had laryngectomy.

However, at the last meeting with the experts it was suggested that the hearing aids should not be divided according to the age of the persons but the types of the device such as a box, behind the ear, in the ear and the levels of severity of hearing loss. The hearing aids were finally divided into 5 subcategories according to the severity of hearing loss and ways of life of the persons with disabilities. Referred prices of hearing aids for children were set higher than those for adults. This was because the experts were highly

aware of the importance of language development in children. Therefore, the device should be high quality and highly effective for use.

3. A list of assistive devices for persons with disability Type 3 (physical and movement disability)

There were 10 categories of 113 items of assistive devices listed for Type 3 disability (physical and movement disability). Most of the devices for this Type of disability, the experts recommended that physical technicians of the hospitals better produce them for better fitting.

4. A list of assistive devices for persons with disability Type 4 (mental and behavior disability)

There were no specific devices listed for Type 4 disability (mental and behavior disability). The experts from a mental health hospital concluded that there were no specified devices listed for persons with disability Type 4 yet. However, this study initiated health care team to be aware of possible assistive devices that may be listed as standard assistive device for such persons.

5. A list of assistive devices for persons with disability Type 5 (cognitive and learning disability)

There were 4 categories of 24 items for Type 5 disability (cognitive and learning disability). These people also have physical and movement disability. All these items were already identified in the list of the devices for physical and movement disability.

Persons with disabilities have some limitations in their daily lives determined by the type of their disabilities. Therefore, their basic needs vary depending on their potentials. A holistic approach is required for strengthening their

ability and capacity (Consulting Committee for Persons with disabilities, 2002). Utilization of assistive devices or facilitating technology is necessary for improving quality of life of persons with disabilities. However, to promote the disabled persons to use assistive devices, the devices need to be designed in a way that makes the persons feel comfortable and confident in their use (Jutai, 1999). The devices listed by this study have been approved by stakeholders including representatives of persons with disability and experts in each type of disabilities. They were justified for their cost, quality, utility, and availability.

Recommendations

1. Recommendations for the National Health Security Office:

1.1 The list and referred prices developed would be useful for the NHSO to launch a policy to use the fixed standard price as a payment system on the provision of assistive devices countrywide.

1.2 An appropriate period for getting a replacement for the devices given should be identified. For example, wheelchairs may have a period of 5 years.

1.3 The lists of assistive devices should be revised every 3-5 years.

1.4 Follow-up and evaluation systems for the use of assistive devices provided should be developed to enhance the quality of life of persons with disabilities.

2. Recommendations for health care settings:

2.1 There should be lists of assistive devices for the hospitals to use as guidelines to develop the potentials of the services offered for persons with disabilities.

2.2 The doctors or the authorized health care providers responsible for decision making in approval of the device given to the person with disabilities should identify the reasons or needs for the devices when making a prescription for the devices.

2.3 Training, where necessary, should be provided along with the provision of the devices in order to ensure that the persons know how to use the devices and be able to use the device with confidence.

2.4 Follow up and evaluation of the use of assistive devices provided should be developed to enhance the quality of life of the persons with disabilities.

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