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| <p>Home Care and Rehabilitation Equipment Industry's Survey for the Future Development (results of the Survey and discussions)</p> |
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The Health and Welfare Information Association has compiled a report of the future trend and development of the home care and rehabilitation equipment industry by summing up the result of questionnaires of home care equipment users, which was conducted from September, 2007 to May, 2008, the trend of performance of exhibitors participated in International Home Care and Rehabilitation Exhibition and the result of the hearings from major companies or associations of home care and rehabilitation equipment, with the cooperation of Mitsubishi Research Institute.

(1) Trends of the Market Size

① Overall Trend

The overall trend of the home care and rehabilitation industry from 2006 to 2007 is summed up that the market was scaled down in 2006 due to the decline in sales centered around Care Bed Related categories in 2006, influenced by the revision of the Long-Term Care Insurance System on April, 2006. In 2007 overall trend also doesn't show a recovery trend and remain on the same level according to the result of the hearings done in this survey. And in the latter half of the year, we finally see the sign of the recovery trend among a few companies. Since more than half of production and sales of the home care and rehabilitation market are based on the Long-Term Care Insurance System now, it is hard to expect broadening the market for the time being.

But there are some movements which may lead to the future development. At the survey of 2006, the influence of the revision of the Long-Term Care Insurance System had not appeared in the performance of each company and it was hard to estimate how much influence they would receive. On the other hand at the survey of this year, major companies are reviewing their business strategies with the expectation of the influence of the System's revision. The direction of the strategies varies because of the difference of the techniques or know-how they have, but there is a common trend for diversifying the field of business in order to reduce the risk of the system. There is a movement for merchandising not only in the Long-Term Care Insurance market, but also in welfare for disabled market, home care market or even in overseas market, which was not seen in the 2006 survey.

At the present moment, the new movement has just started in each company, so it is not yet time to evaluate the achievement. But from now on, the home care and rehabilitation equipment market has a possibility to expand depending on the engagement of each company.

② Trend by Categories

Seeing the trend of the home care and rehabilitation industry by categories, in the Care Bed category, the market size is downsized, because of the sharp decrease in the volume of shipment. This was caused by the sharp decline of demand from people with lighter disabilities which was triggered by the revision of the selection standard in the Long-Term Care Insurance System. At the end of the 2007, the volume of shipment has not recovered yet and the major companies are engaging in developing new markets such as private purchase customers without insurance benefit, as well as care insurance market. Since the Care Bed category takes a major part of the rental home care and rehabilitation equipment service, home care and rehabilitation rental business has been affected and sales and profit of rental wholesale companies has

decreased.

On the other hand, the revision of the Care Insurance System emphasized on the direction of prevention, so that Mobility Aids like Canes and Walkers had a steady increase. However, Mobility Aids is a category that many accidents occur, so it is important to develop and improve the product to have more safety and to gain trust from users.

The volume of production in the categories like Wheelchairs, Electric Wheelchairs, Mobility Scooters, Bathing Equipments and Excretory Equipments are decreasing though not as much as Care Beds. Whereas, it is reported that the number of people buying products with their own money are increasing other than with insurance benefits. There is another report which says that some disabled people buy home care and rehabilitation equipments with high capabilities to get a better job and advanced elderly care homes recommend in-patient to buy wheelchairs which fit to the self-reliant life. There is a movement to improve the quality of life and job by introducing the equipments with high quality. If this trend continues, it is possible to broaden the market of private purchase little by little.

Mobile Lifts is considered as effective and necessary to prevent backache among the specialists. On the other hand, in the most of nursing care centers, it is not considered to be effective and not expected to expand in the future. At this moment, it is not certain if Mobile Lifts would expand as caregivers who are in charge of nursing care expect. It is necessary to ask for the better understanding at the site of nursing care.

FIGURE The Number of Shipment of Major Home Care and Rehabilitation Equipment

| | Amount by year(for reference) | | | | | | | | |
|----------------------------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|--|
| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | |
| dipers | 2,303 (mil.) | 2,317 | 2,228 | 2,435 | 2,996 | 3,404 | 3,753 | 4,246 | counted by JHPIA number fo production(dipers for adults) |
| portable toilets | 343 (thousand) | 309 | 343 | 355 | 362 | 351 | 345 | 338 | (※estimate by JASPA) |
| walkers | 73 (thousand) | 76 | 96 | 116 | 118 | 115 | 120 | 149 | (※estimate by JASPA) |
| walkers with sitting space | 299 (thousand) | 329 | 337 | 340 | 350 | 355 | 372 | 380 | (※estimate by JASPA) |
| manual wheelchairs | 428 (thousand) | 406 | 393 | 397 | 375 | 388 | 365 | 358 | (※estimate by JASPA) |
| electric wheelchairs | 6 (thousand) | 9 | 7 | 6 | 6 | 7 | 7 | 7 | counted by electric wheelchair association number of shipment |
| mobility scooters | 24 (thousand) | 32 | 38 | 27 | 25 | 22 | 21 | 17 | counted by electric wheelchir association number of shipment |
| car for physically challenged | 22 (thousand) | 26 | 30 | 33 | 38 | 37 | 37 | 35 | counted by electric wheelchair association number of shipment |
| lifts (ceiling/floor/bathing) | 7 (thousand) | 9 | 9 | 9 | 7 | 7 | 7 | 5.7 | (※estimate by JASPA) |
| beds | 350 (thousand) | 391 | 336 | 343 | 334 | 345 | 337 | 221 | counted by Japan Bed Industry Association number of production of care beds |
| home elevators | 9 (thousand) | 10 | 9 | 8 | 7 | 7 | 8 | 7 | counted by Japan Elevator Association number of newly implemented |
| stair lifts with chairs | 4 (thousand) | 5 | 5 | 6 | 5 | 5 | 5 | 5 | (※estimate by JASPA) |
| hearing aids | 414 (thousand) | 427 | 420 | 428 | 448 | 465 | 471 | 459 | counted by Japan Hearing Aids Association number of shipment |

Figure Market Trend by Categories

| categories | Market Trend of 2006 | Forecast for 2007 |
|-------------------------------------|---|--|
| Bathing Products and Toilet related | <ul style="list-style-type: none"> It has been steadily growing after the implementation of Long-Term Care Insurance System, however, it showed the decline of 10% for | <ul style="list-style-type: none"> The market is recovering compared with last year. Most of the people in need of nursing care use these products so current market size will continue to stay |

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| | <p>the first time in 2006. Especially Bathing products for facilities showed big decline.</p> <ul style="list-style-type: none"> • Private purchase has increased, so cheap products are sold in the general market and the price started to polarize. | <p>for some time.</p> |
| Canes, Walkers, etc | <ul style="list-style-type: none"> • Steadily and continuously increasing. • Stable market for both newly purchasing and replacement. <p>Especially walker with sitting place is dramatically sold well.</p> <ul style="list-style-type: none"> • Demand is increasing due to the policy conversion to emphasize prevention. | <ul style="list-style-type: none"> • Market is expanding after the conversion to emphasize prevention. • It is an important time to check the influence of manufactures' concept on the new products with multi functions along with the high interest for quality and safety. The market will continue to grow step by step. |
| Manual wheelchair | <ul style="list-style-type: none"> • This market has been in severe situation. But it strengthened the management base of this industry and the right of price decision making has shifted to the manufactures. • The amount of production is reducing but the market size is expanding because of the rise of unit price. The business has been expanded from the Insurance System to general market. | <ul style="list-style-type: none"> • The interests and demands for wheelchairs in future is expected to be stable. Manufactures will develop products in the viewpoint of users. • In the field of Care Insurance System it will stay flat, while in the field of Services and Supports for Persons with Disabilities Act, it may be able to recover. |
| Electric Wheelchair | <ul style="list-style-type: none"> • Sales of rental equipment under Insurance System has decreased and sales in general market has increased. • It is estimated that the number of private purchase has increased because it is considered as living necessities, whether or not it is applicable under Insurance System. | <ul style="list-style-type: none"> • The demand for rental is recovering. • The secondhand market has been formed with the rental-back products. The industry should research on accident prevention and safety measures of secondhand products, as well as the matter of maintenance and competition with new products. |
| Lifts | <ul style="list-style-type: none"> • After supplying enough for the rental companies, the market size is decreasing. The demands from the new facilities are declining. • The bathing lifts are expected for the future demands but leveled off for now. | <ul style="list-style-type: none"> • Not expected to expand the market. The demand at the facilities are declining too. Since it helps reducing the burden of caregivers and to prevent back pain, the industry needs to inform the effectiveness and economical benefit of lifts and try to let people understand. |
| Beds | <ul style="list-style-type: none"> • Because of the revision of selection standard under Long-Term Care Insurance System, the demand from the lightly disabled elderly has dramatically reduced. So the amount of shipment has decreased and the market size has downsized. • The demand at the hospital has decreased but the demand at the facilities is stable so the market is leveled off. | <ul style="list-style-type: none"> • The demand for renewal of equipments by rental companies are not big. • Not expected to expand. The distribution route has been diversified, and competitive. • General demand from lightly disabled will increase. The unit price is expected to be lowered. |

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| Ramps and Stair Lifts | <ul style="list-style-type: none"> • The main market is in Insurance System and other area is in public facilities under the law of barrier free or building code. • It is more likely to be installed when remodeling, but sales was slightly reduced in 2006. | <ul style="list-style-type: none"> • The regulation of building code for Ramps became severe and the demand for facilities is decreasing. • The demand for installation of elevators at the public transportation is decreasing too. • Installing Ramps at the court house is required, but as a whole, severe situation continues. |
| Prevention to Bedsores | <p>The revision of standard of selection under Insurance System doesn't have much influence, because the users are middle to severely challenged.</p> <ul style="list-style-type: none"> • Sales for hospitals and homes are slightly increasing. • The equipments have been diversified and users have much choice, but new products development to compensate the situation is necessary. | <ul style="list-style-type: none"> • Companies started to increase the product lines to fit to the replacement demand because years has passed after implementation of Insurance System • There is a big latent demand, because it is absolutely necessary for severely challenged, but it is necessary to have a long term point of view. • As the number of home care patient increases, the demand at home will increase. |
| Information Equipment | <ul style="list-style-type: none"> • Most of the users are physically challenged. For both users and companies, various environment has been improved because of the higher performance of equipment and the implementation of Services and Supports for Persons with Disabilities Act, and it influenced the communication equipment market • The education for the social welfare specialist has been improved and the introduction of information equipment for severely challenged is increasing | <ul style="list-style-type: none"> • The motivation of the challenged persons who have the chance to work has improved and the environment has been improved. On the other hand, the motivation of the severely challenged and those who are difficult to buy equipments are low. • The market will slowly expand. |

(2) Development of the New Field

① Development of Equipments

Recently the development of the robots for welfare and nursing care with robotics technology are becoming the topic of conversation and some of them are being manufactured as products. Many companies developing these technologies say it will take more than 10 years to make those supporting robots useful in the general nursing care site. But some products which apply a part of the technology have started to be developed as a rehabilitation support apparatus or equipments to reduce the burden of caregivers.

Moreover, a part of the sensor technology and information-communication technology became to be utilized cheaply and it leads to improve the functions and usability of the products like Mobility Equipment, Toilet Related Products, Tracking Device for Wandering and Guiding System. There are many equipments which are not under the insurance benefits, but it is expected to spread as a household equipment or to expand as a product to purchase with their own money. There is an example like Portable Toilet with Washing Function which fills the demand of users and is expanding the market. So it is possible to develop a market with equipments which make users' lives more convenient, even though they are not under the insurance benefits.

It is too early to evaluate the effectiveness, but a part of the suppliers who are close to the site of nursing care have an expectation for the equipments with robotics techniques. On the other hand, at the site of nursing care, both caregivers and users feel resistance to the equipments to take over the nursing care.

However, because of the difficulties of securing human resources in the nursing care field, it is inevitable to expand the use of home care and rehabilitation equipments in order to keep the quality of service. One of the answers is to develop and spread the home care and rehabilitation equipments with high functioning to keep and improve the quality of service with reducing the burden of caregivers. It is not practical now to introduce robots in the nursing care service but it must be necessary to think about the possibilities to expand the role of the equipments while the service is predominantly done by human. As the population ages and fewer babies are born, in order to improve the working environment of nursing care service and quality of the nursing , we have to seek the best service combining the human resources and utilization of the equipments.

Considering this situation, it is important to accumulate practical data and to construct a system to evaluate them, and to think about the possibilities of developing better service and efficiency by using equipments as well as developing new equipments, in order to develop the home care and rehabilitation equipments with new functions. Moreover, the appropriate usage and environment for the equipment is necessary to make the equipment more effective. So we must not only sell equipments, but also consider the service we can provide with the equipment by supporting the usage, and arranging the better environment and conditions for use.

② Exploiting New Market other than Insurance Benefit

Considering Japanese financial situation, it is not expected to expand the home care and rehabilitation equipment market under the Long-Term Care Insurance System in the future. It is required to broaden market without depending on the Insurance Benefit. Looking at contents of the companies' revision of merchandising strategies, common changes are trying to exploit new market other than Insurance Benefit by diversifying the major business. For example, they investigate the possibilities in engaging in the service to integrate with information service or counseling in the boundary area with medical field, working together with the house constructing field to sell equipments as a part of household equipments, and trying to exploit market as healthcare equipments.

There are many new markets where the existing equipments may not fit well so that companies try to deal with these by developing new equipments. In the near future, this trial of exploiting new markets will continue and there will be more and more products and services which exceed the functions and techniques

of conventional equipments. Now it is very important timing to look for the possibilities by developing various trials in order to take an expanding role of home care and rehabilitation equipments, and it is necessary to propose various ideas by cooperating with other fields.

Figure 38 New Push in Home Care and Rehabilitation Equipment related Companies
(2007)

<company's strategy>

| name of the company | date of news | content |
|------------------------------------|--------------|--|
| car manufacturer | 28/05/2008 | Developed nursing care robot and will start verification test from June. Collecting data in several hospitals in Aichi. Accelerating development for practical application in early 2010s |
| bed manufacturer | 26/05/2008 | Enhancing sales of nursing care equipments. Opening 4 bases, increasing 100 employees. |
| university | 22/04/2008 | Developed a Wearable Robot Suit for farming. The sensor will detect the movement and support the movement of arms and legs with the motor. |
| construction material manufacturer | 22/04/2008 | Selling Home Elevator for remodeling expansively in Chubu and Kansai area. |
| trading company | 23/04/2008 | Acquiring a sales company of nursing care products |
| venture company | 22/04/2008 | Announced that they developed an audio controller which can operate portable music player easily by persons with difficulties with hands. One can directly enter in with buttons or switches which can be operated by foot or cheek. |
| drugstore chain | 23/04/2008 | Home renovation for barrier free is under way. |
| venture company | 17/04/2008 | Started to build a factory to produce nursing care robot suits with major house manufacturer and will start to manufacture from October. Will build a system to manufacture 500 per year. Will lease robot suits for medical facilities. |
| rental wholesaler | 17/04/2008 | Opening multi-functioning bases for nursing care in Koriyama city. |
| retailer of car related goods | 19/01/2008 | Opening the first integrated nursing care shop selling nursing care products in Chiba city. |
| university | 08/01/2008 | The Muscle Suits which attached with pneumatic artificial muscle is in the phase to be commercialized this year. It supports the movement of the person by wearing and pressurizing. |

<New Product Development, etc>

| name of the company | date | contents |
|-----------------------------------|------------|---|
| Precision equipment manufacture | 27/05/2008 | New hearing aid is announced. Strengthening livelihood support products department. |
| nursing care products manufacture | 19/05/2008 | New development of wheelchairs for bathing. More stable with tilting seating face. |
| beds manufacture | 12/05/2008 | Started to sell wheelchairs for people with severe disabilities. Improved fitting with more flexible seating face and arm rest. |

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| home care and rehabilitation products manufacture and sale | 22/04/2008 | Developed lifts for elderly and physically challenged. |
| home care and rehabilitation products manufacture and sale | 17/04/2008 | Developed electric wheelchairs which can move on rough road smoothly. |

Listed by MRI, collecting information from newspapers.

(3) Development of Equipments responding to the request of the users

① Responding to the request of the users.

The number of home care and rehabilitation equipment users at home is increasing so that recently users propose a request to develop or improve equipments. Based on the result of the questionnaire for users at the HCR, various request such as easiness of handling, toughness, and good designs are proposed. The equipments are getting an understanding to be used not only in the medical or nursing facilities, or rehabilitation facilities, but also in the home care. So it seems that the easiness of use and the good design to fit into the daily life are getting to be an important factor to decide which product to buy.

The importance of the appropriate fitting to the individual body shape and body functioning which the rehabilitation specialist thought much of is still unchanged, but it is getting necessary to develop equipments from the viewpoint of daily life. It is required to make refined equipments which fit to the life of the user.

This might be an important factor to expand the usage at home in the near future. To develop equipments responding to their demands will make the users' life affluent and also lead to expand the home care and rehabilitation market in the near future.

② Assuring the Safety

The implementation of report and announcement system of the accident accompanied by the revision of the Consumer Products Safety Law, has made the news of accidents of home care and rehabilitation products wide spread and the social interest in the safety of these products are rapidly growing. It is dead certainty to match the code and standard (JIS, SG, PSC, TS, etc)to ensure the safety of the products. However, hearing each company in this industry, as its characteristics as home care and rehabilitation products, the environment of the users at home is widely different and there is no unified usage, so it is getting hard to ensure the safety of the products in the same way as the general household products.

As for Long-Term Care Insurance benefit, there is a system that the care manager or special counselor for the home care and rehabilitation equipment choose and recommend, and the manufactures monitor. To ensure the safety of using home care and rehabilitation products, it is our challenge in the near future to improve the supporting system by combining these supports. To expand the market of private purchase, it is necessary to have some kind of system to support the usage, situation and problem solving for privately purchased products. It is one of the ideas to utilize the rental system in Long-Term Care Insurance, but it is also important for manufactures, distributors and government to cooperate each other and try to make a system not to put burden on users.

③ Improvement of Handling Ability and Development of Equipment

When we make a system to develop products responding to the needs of the users and to ensure its safety, it is necessary to think about the improvement of the handling ability for home care and rehabilitation equipments of the users as well as providers related to the site of the use. When the handling ability of users and providers improve, the cost for ensuring safety and for developing new equipments will decrease. Moreover, when we propose new equipments or services, it is possible to make use of the system to communicate appropriately and to support the usage. Therefore, establishing this system can be seen not only as a cost for ensuring safety but also as an investment for providing products and services to support their lives. And it should be considered as a challenge that manufactures and suppliers should deal with together.

Considering the reflection of handling ability to the development of the products, there are some facilities engaging in using the home care and rehabilitation equipment, which have accumulated the concrete requests and ideas for the development of the products. So it is necessary to incorporate these ideas to the development. It should be important to understand the users' needs and make a system step by step to connect the development of effective products and safety use.

(4) Development of Overseas Markets

While the domestic market of home care and rehabilitation equipment has been slow in development, the challenge will be in the development of overseas market as well as the private purchase market in order to expand the whole market of home care and rehabilitation equipment. The most expected markets overseas are Asian markets, like Korea, China, and Taiwan. The major company has already started some kind of approach, such as building factories, collecting information, and getting tie-up with local companies. But none of them has started the actual business. They are searching for the possibility of business, business format, area and the timing.

It has been said that “In Europe the physical size of users and the product size are different from Japan, so we have to change the size of the products to sell in the European market. But there is no such need in Asian Markets”. But after we researched each market specifically, we found out that there are many challenges in manufacturing products in Asian Markets. In Korea and China, it is necessary to get certification as medical equipment and the standard of medical equipment is being developed in compliance with ISO. Moreover, the business habits are different and the usage of home care and rehabilitation equipment is not well known in Asian countries which are worse than in Japan when the Long-Term Care Insurance System was implemented. So it is a challenge how to distribute home care and rehabilitation products in Asian countries.

In these countries, there are many local companies who can manufacture one kind of product like wheelchairs or care beds cheaper than Japan. Whereas Japan has the superiority in package service like selecting the best fit home care and rehabilitation equipment, applying it, supporting the usage, monitoring, and securing by maintenance of equipment. These services are the field that the Japanese home care and rehabilitation equipment industry have accumulated the know-how by trial and error for 8 years after the implementation of Long-Term Care Insurance System. We believe that by providing package services developed by experience and know-how, it is possible to lead to the development of the broad market as well as selling products.

Moreover, each country has different public service system and living environment for these home care and rehabilitation equipments. It is necessary to decide whether it is better to work with the public service system or to provide it as a different service from public system. In order to actualize the long term market development in Asia, the industry is required to expand the business by proposing how to make appropriate environment for the users and by supporting the construction of the system, including to propose the Asian common product standards of home care and rehabilitation equipment. It is also important to check up what kind of resources in target countries can be utilized, what kind of techniques and know-how should we propose and how should these be combined.

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The Health and Welfare Information Association