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IDEA SYSTEM CO., LTD.

· Promotion of R&D on Practical Welfare Equipment - Development of Easy-to-use Wheelchair-type Transferring Equipment (FY2009) ,etc.

Easy and Safe Transferring from Bed to Toilet Development of New Transferring Equipment to Support Care in a Highly Aging Society

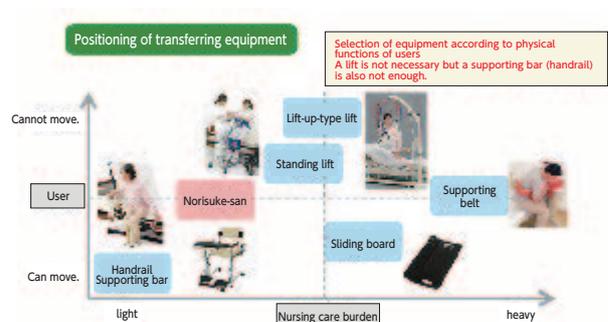


Japan is now a highly aging society where one out of four Japanese is an elderly person of the age 65 or higher. Improvement of life quality of physically handicapped persons in need of nursing care and reduction of burden on caretakers who support those who need care are big challenges that the society is currently facing. In particular, it is technically difficult and puts a large burden on a caretaker for a person in need of nursing care to get up out of a bed and move to a toilet in a safe manner. The fact that the use of toilets, which is a part of our daily life, makes a large burden could not only lower the quality of life (QOL) of those who need nursing care but also cause injury of the caretakers.

Since 2004 when the nursing-care insurance system began, the cases where caretakers had back pain recognized as worker's compensation increases several times in number and the pain was mostly caused when they tried to lift and move a person in need of nursing care to a toilet or bathroom. In this situation, the Ministry of Health, Labour and Welfare revised in 2013 the guideline on the prevention of lumbago in the workplace for the first time in 19 years. The guideline covered nursing care facilities for elderly people which had not been covered by the previous guideline. In the guideline, it is recommended to use nursing equipment for transferring a person or prevent lifting up the person by yourself. Reduction of burden on caretakers who often transfer persons in need of nursing care is now a serious, unavoidable problem for the nursing care of elderly.

Prior to the revision of the guideline, an electronic device manufacturer "IDEA SYSTEM CO., LTD." in Okaya City, Nagano Prefecture, began in 2007 to develop new transferring equipment for transferring a person in need of nursing care between a bed and a toilet with little burden. From FY2009, the company accelerated the practical development with help of NEDO's "Promotion project of welfare equipment development and commercialization," succeeded in

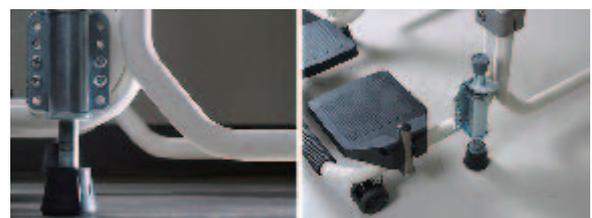
commercialization of a new product in 2010, and began to sell the products in January 2011. More than 200 new transferring equipment units developed by IDEA SYSTEM CO., LTD. are now used at hospitals and houses mainly in Nagano Prefecture.



Evaluation of various transferring products from a viewpoint of physical conditions of a person in need of nursing care and from a viewpoint of the burden on a caretaker



Above: Steps from bed to Norisuke-san (from left to right)
Below: Danger and burden in the conventional method. (Photographs and materials from IDEA SYSTEM CO., LTD.)



For a highly durable frame, not a single but two corners are made to disperse the load.

Q. Why did this project start?

In the rapid development of the elderly society, research, development and dissemination of various welfare products based on diversified welfare needs are an urgent need for a safe and secure life. The government enforced “Act on the Promotion of Research, Development and Dissemination of Assistive Products (Assistive Products Act)” in 1993 to promote the dissemination and development of the welfare products. One of the aims of a recent policy, “4th Science and Technology Basic Plan” approved by the cabinet in 2011, is improvement of quality of life (QOL) of elderly or disabled people and promotion of research and development of technologies that reduce the burden on caretakers, for the realization of life innovation. The New Growth Strategy approved by the Cabinet in 2010 aimed to promote “Healthy Big Nation Strategy through Life-Innovation” as a growing field where Japan can take advantage of it. According to Assistive Products Act, NEDO shall subsidize commercialization research and development that will contribute to technological improvement of welfare products, collect and provide information about welfare equipment, and do other supportive activities. The project has been conducted under the Act to support product commercialization for the highly aging society and foster the welfare product industry.

Q. What was the aim of the project?

For the realization of an elderly-friendly and disabled-friendly society, expectations for welfare product development have increased. However, in general, welfare products have a large market risk or development risk, and hence even when a company develops a new technology, it is extremely difficult for it to solely commercialize the technology. Most of the welfare product manufacturers are small and medium sized corporations with a weak business base, and investment to research and development would be a big burden to them. For the promotion of commercialization of welfare products, it is important to reduce development risks. NEDO launched this project to support companies that developed distinguished technologies or original and practical welfare tools. NEDO began subsidy in FY1993 and subsidized 202 projects by FY2012. As of March 2014, a total of 102 products were commercialized. With the subsidy from NEDO, IDEA SYSTEM CO., LTD. in Okaya City, Nagano Prefecture, developed “Easy transferring equipment: Norisuke-san (product name)” to make it easy to transfer a person in need of nursing care between the bed and toilet for his/her improved QOL. It also developed related products and could move in the welfare market from outside the market.

Q. What is the role of NEDO?

In the selection of a target project to be subsidized, NEDO emphasized that (1) a welfare product to be developed shall not have the same function or shape as that of the others and shall have a new research element, that (2) the business shall fit the purpose of the subsidy by responding to the needs of users and having a research factor, and that (3) the commercialization development shall have specific impacts on nursing care support, independence support, social participation support, and physical substitute function improvement and have a certain size of market which would be economically necessary for users. NEDO conducts preliminary documentary examination and holds selection committee meetings with outside experts for fair selection of companies to support. Also, it checks the development progress status of the selected companies and helps them to present their products at an exhibition.