ICT in home health care in Japan

Kansendossier Japan

>> Als het gaat om internationaal ondernemen en samenwerken
Summary

Japan sees its population ageing faster than any other countries in the world. The government finds it more and more difficult in providing the sustainable health care at affordable costs. The overhauling of the healthcare system is a solution to the problem but it takes considerable time and the government has chosen less burdensome approach – Shift from care at traditional hospital settings to home health care. It increases the payout from national health insurance to distribute more money to home health care and sets up more bases to provide such care.

ICT plays a role to facilitate the move. Latest technological development makes it possible to provide efficient, quality and timely home health care. The market of ICT-based home health care is expected to double from JPY 11.8 billion (€90 million) in 2012 to 26 billion (€200 million) in 2020. Buoyed by the government support, many players are entering the market with innovative services and devices. Considering a number of pilot projects using ICT in progress by municipalities tying up with academia and private companies, the market is expected to grow substantially when the actual services are launched. This report gives an overview of the ICT-based home health care market including the size of the market by categories of services and devices. It also sketches the trend of the market, information on the domestic market including major players and some hints for entering the market.

Context
1. Classification of home health care services using ICT
2. Market size of home health care services and devices
3. Trend of the market by segments
4. Challenges to be tackled for more use of ICT
5. Keys for entering the market

1. Classification of home health care services and devices
Home health care services can be categorized into the following four groups.

(1) Remote activity monitoring of the elderly
ICT system to detect extraordinary signs of the elderly and automatically report them to call centers who call them back immediately to check the condition and dispatch staffs or ambulance if necessary

(2) Remote medical/nursing care service
Remote monitoring the health condition of the patients and transfer it to doctors and hospitals who provide emergency medical technicians with specific instructions how to treat the patients in case of any abnormalities in the data

(3) Data sharing among medical health care providers
Sharing patients’ data by all the medical professionals and care providers with an

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1 Exange rate: Euro = 130
electronic medical record keeping system and other medical data storage system

(4) ICT for improvement of operation efficiency
System to help improve the efficiency of administrative operations for home health careservice providers. Route searching to

2. Market size of home health care services and devices

The market for home health care services using ICT stood at JPY11.8 billion (€90 million²) in 2012. It is expected to expand to JPY26 billion (€200 million) in 2020 as shown below. Remote activity monitoring of the elderly accounted for the largest share in 2012. The market for remote medical/nursing care services and date sharing is still small because it takes a while till such services begin to be offered. The government and municipalities are stepping up their efforts to develop infrastructure vital to provide home health care and are implementing pilot projects. More parties are likely to enter the market with a wide range of services and devices. As a result, the market for these segments is projected to exceed JPY10 billion (€77 million) in 2020.

<Market for home health care services>

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2015</th>
<th>2020</th>
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<tbody>
<tr>
<td>Total (JPY100 million yen) (million euro)</td>
<td>117.9 (90)</td>
<td>130.1 (100)</td>
<td>162.8 (126)</td>
<td>259.9 (200)</td>
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<tr>
<td>Data sharing on patients</td>
<td>0.4 (0.3)</td>
<td>7.4 (5.7)</td>
<td>30.0 (23)</td>
<td>104.6 (81)</td>
</tr>
<tr>
<td>Improving operation efficiency</td>
<td>16.0 (12.3)</td>
<td>16.2 (12.5)</td>
<td>16.6 (12.8)</td>
<td>17.5 (13.5)</td>
</tr>
<tr>
<td>Remote activity monitoring of the elderly</td>
<td>101.5 (78)</td>
<td>106.5 (82)</td>
<td>115.2 (89)</td>
<td>132.3 (102)</td>
</tr>
<tr>
<td>Remote medical/nursing-care</td>
<td>0</td>
<td>0</td>
<td>1.0 (0.77)</td>
<td>5.5 (4.3)</td>
</tr>
</tbody>
</table>

<Growth of market for home health care services>

² Exchange rate: Euro = 130 yen
3. Trend of the market by segments

3-1. Remote activity monitoring of the elderly
The market is growing steadily as more elderly people tend to live alone. Many companies already offer this service, therefore, the competition is keen among various service providers. In 2012, the market is JPY10.1 billion (€78 million) and it is expected to grow 30% to JPY13.2 billion (€102 million) in 2020. Sharp growth of the market is not likely unless companies provide devices or services with unique selling points. For instance how to make speedy contacts with doctors or hospitals in case of emergency is all what it is counted. Some companies offer ambulance service to take the patients to hospitals to provide proper medical treatment.

(Major players)
- Fukuda Denshi Co., Ltd.
- NEC Soft Ltd.
- Nichii Gakkan Co., Ltd.
- Omron Healthcare Co., Ltd.
- Philips Electronics
- SBS Information Systems Co., Ltd. (Japanese only)
- Secom Co., Ltd.

3-2. Remote medical/nursing care
Remote medical/nursing care services using ICT will be launched full-fledgedly from the year 2014 according to the roadmap of the Ministry of Internal Affairs and Communications. The national health insurance covers "remote imaging diagnosis" by doctors but not yet "remote medicine" for actual treatment of diseases and injury. Revision of the government regulations and legal framework are still needed in order to implement the remote medicine. Remote medical and nursing care services are already provided in remote places and isolated islands where a shortage of doctors is a serious problem. This service is also applicable to the elderly people and couples living by themselves in urban areas. Many pilot projects to test the feasibility of remote medicine are going on by the relevant ministries such as Ministry of Communications, Ministry of Health & Welfare and Ministry of Education & Science. The market in 2015 is expected JPY100 million (€0.77 million) and it will increase five times to JPY550 million (€4.3 million) in 2020. However, the market will grow sharply beyond this prediction if the government launches promotion of remote medicine.

(Major players)
- Asahi Kasei Corporation
- Fukuda Denshi Co., Ltd.
- Hitachi, Ltd.
- Nichii Gakkan Co., Ltd.
- NTT Group
- Omron Healthcare Co., Ltd.
- Teijin Ltd.
- Toshiba Corporation
- Willcom, Inc.
3-3. Data sharing among service providers
Services for data sharing and collaboration among home health care service providers are being tested by innovative companies. This segment of the market has biggest growth potential to be 14 times as large as the market in 2012 to JPY10.5 billion (€81 million) by 2020. In addition to the conventional electronic medical record keeping system, new services are emerging on the market thanks to a wider use of tablet PSs and other mobile devices. The latest hospital-related exhibitions see overwhelming increase in ICT companies in the participants list. As the government is building up the community-based care system with key hospitals all across the country so that home health care is more focused, services using ICT such as smart phone and tablet PCs will make a contribution to better home health care.

(Major players)
- BML, Inc.
- Fujitsu, Ltd.
- Hitachi, Ltd.
- NEC Soft Ltd.
- NTT East Corporation
- Panasonic
- Sony Corporation
- Yuyama Co., Ltd.

3-4. ICT for improvement of efficiency in health management
New type of services are not likely to be developed, instead the existing service will be more sophisticated and user-friendly. The market is projected to expand moderately from JPY1.6 billion (€12.3 million) in 2012 to JPY1.75 billion (€13.5 million) in 2020. ICT makes saves considerable amount time spent on administrative work for doctors, nurses and hospital staff. The service is now mainly offered as additional option of electronic medical record keeping service. In order to improve the efficiency, particular expertise and know-how in home health care should be built in the system and devices.

(Major players)
- Eir, Inc. (Japanese only)
- Fujitsu, Ltd.
- NTT East Corporation
- Hitachi, Ltd.
- NEC Soft Ltd.
- Panasonic
- Sony Corporation
- Yuyama Co., Ltd.
4. Challenges to be tackled for more use of ICT

With the emergence of smart phones, tablet PCs and on-line platform for health data storage, application of ICT promises improved and efficient provision of home health care market. However, the following challenges are needed to be tackled for promotion of wider use of ICT-based services.

- Security and risk management issues should be properly addressed as a number of users
- Clear rules have to be established with regard to types of information to be shared
- Definition and framework still have to be clarified, particularly on “remote medicine”
- Cost standards and structure for operation of the system have to be set up

5. Keys for entering the ICT-based home health care market

The market is competitive but promising with many players include IT companies, nursing care service providers, retailers, meal delivery firms, companies from non-health care sector are also entering the market. Government ministries and municipalities are implementing a variety of pilot projects in an attempt to apply ICT to home health care and grant subsidy to various services. Large ICT companies, nursing care service providers are also carrying out feasibility studies with academics. Foreign companies may possibly work with these companies to jointly develop a new device and service in the sector. It is advisable to visit/participate in the relevant trade fairs and business mission such as EUsubsidized Gateway Program. Also the Business Partner Scan (BPS), a tool for match-making offered by the Embassy in collaboration with Ministry of Economic Affairs should be taken into consideration as an initial step to sound out the possibility.

1. Ministries and organizations
   - Ministry of Internal Affairs and Communications
   - Ministry of Health, Labour and Welfare
   - Ministry of Economy, Trade and Industry
   - Ministry Education, Culture, Sports, Science and Technology
   - Cabinet Office
   - National Center for Geriatrics and Gerontology
   - Japanese Nursing Association

2. Trade Fairs
   - International Modern Hospital Show
   - International Home Care & Rehabilitation Exhibition
   - The 4th Medical Device Development & Manufacturing Expo
   - 21st 3D & Visual Reality Expo
   - EU Gateway Programme – Healthcare and Medical Technologies
   - HOSPEX Japan