Recent Improvements in Information Networks for Local Care Services

By Nobuo Ono
Long-term Care Forum / Social Development Research Group

1. Introduction

The new public long-term care (LTC) insurance system that began in April 2000 fundamentally changed how welfare services are provided — care recipients can now choose which services to use rather than be assigned to them. As of June 30, there were approximately 2.5 million approved LTC recipients, an increase of 1.5 million since April. By increasing the number of elderly persons eligible for care, the public LTC insurance system appears to have made a good start.

However, few people can actually take full advantage of the maximum care limits. According to one survey, approximately half of the users are using no more than 40% of their limit. Thus the system is under-utilized.

Reasons given for the low usage include the perceived burden of the 10% deductible charge, and the inadequate stimulation of needs by care managers. But the real problem appears to be a lack of information on the LTC insurance system and on available services and service providers.

For example, LTC users and their families have scant access to information on local service providers, services, and products offered. On the other side, vendors are poorly informed about the specific daily living needs of elderly and disabled persons. Nor do they know how best to approach their potential market. And care managers, who perform an important mediating role between service providers and users in the LTC insurance framework, cannot make informed decisions regarding LTC service providers or learn about products and services other than those related to LTC insurance.

This situation makes it difficult for care managers to set up effective care plans, and for users to compare different vendors. The lack of information thus impairs the smooth operation of LTC insurance for all concerned parties — including users, the general public, service providers, and care managers —thereby impeding the use of related services.

Thus the new public LTC insurance system is in short supply of the lifeblood it needs to function effectively. The remedy is to adopt diverse information media. One effective method is to compile and

distribute an informational magazine. However, to accommodate individual long-term care needs, and actually enable users to choose service providers, the only viable alternative for managing massive amounts of welfare related data is to aggressively adopt information technology (IT).

From this perspective, below we examine how to improve the data content and compilation method of local care information systems, focusing on a case study of the Omiya Chamber of Commerce and Industry's initiative called OIC-Net.

2. Data Content and Compilation Method

While many care information systems presently exist, most are unsatisfactory because they fail to aggregate the vast information on local welfare and "silver service" providers and other community resources.

Indeed, it is still unclear what type of information system will be needed in the future to produce a steady flow of up-to-date, localized information on long-term care and welfare under the public LTC insurance system.

Below we look at three key areas that local care information networks need to address — quality of information, quantity of information, and operational management.

(1) Quality of Information

1. Timeliness

Information can be categorized into primary and secondary information. Primary information comes straight from the source and is unprocessed, while secondary information arrives processed by the data provider, users, or a third party.

Timeliness is critical to the value of primary information; on the other hand, secondary information can be less current because it derives its value from being processed.

Although conventional welfare information systems often focus on providing primary information, they rely on a centralized data collection structure that itself creates time lags and reduces the timeliness of the information.

Most of the information needed by welfare service users, providers, and care managers is new information that falls into the primary information category. For example, if a user has recently been dis-

charged from a hospital and wishes to rehabilitate at an interim facility before returning home, he or she needs primary information on the present availability, services, and prices of facilities closest to home.

Because centralized data collection processes are inherently slow, welfare information systems will need to rely on a collaborative structure in which service users and providers can exchange information in real time.

2. Processed information to aid decision-making

At the same time, the huge volume of primary data can easily overwhelm users. Particularly in choosing service providers in the welfare and long-term care areas, users often not only lack sufficient information but knowledge of criteria for making choices.

Thus users critically need secondary information that provides them with the necessary criteria to evaluate primary data.

(2) Quantity of Data

1. Full support for LTC and daily necessities

Care recipients and the families that take care of them need more than local information on who the designated LTC service providers are in their area and what services they provide. They also need local information regarding daily necessities outside of the core LTC services — for example, non-designated meal delivery services, shopping agents and order takers, wheelchair repair services, movie theaters with wheelchair access, stores with sign language interpreters.

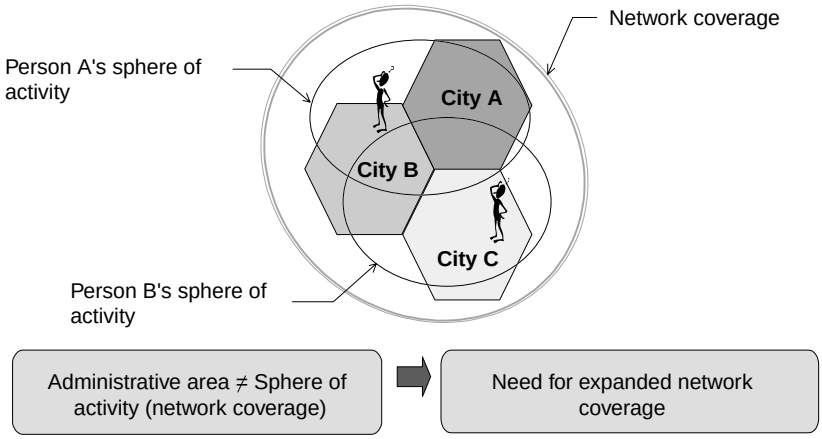
Thus to be truly useful, care information systems need to provide complete information on a full range of daily necessities and not be limited to long-term care, as important as it is.

2. Localization of content

Presently, localized content is usually defined by administrative boundaries, which is not necessarily in the best interest of users. For example, persons who live on the outskirts of town may be better served by vendors in the next town, but have no access to such information. Thus geographic coverage should optimally be centered around the particular user. On the other hand, too wide a coverage is also not optimal, because the large volume of irrelevant data makes searching more cumbersome (for example, Tokyo residents would have little use for data on service providers in Hokkaido). In addition, managing massive amounts of data poses significant operational difficulties.

In each locality, the sphere of activity of residents tends to be defined by certain geographic, cultural and economic factors. Thus the optimal area coverage of an information system is one that matches the particular sphere of activity (Figure 1).

Figure 1 Sphere of Activity and Administrative Boundaries



Source: NLI Research Institute

(3) Operational Management

1. Independent and stable operation

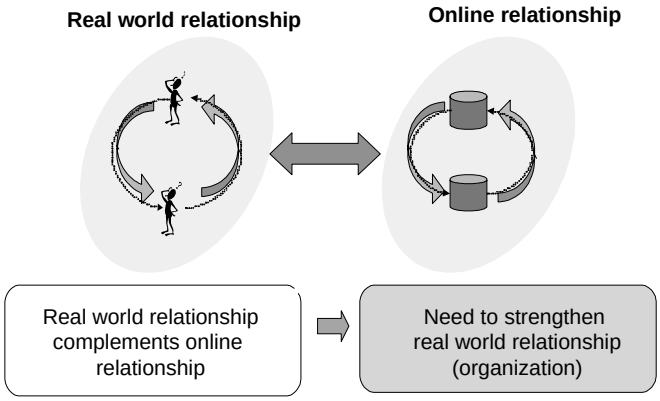
In the interest of operational stability, information systems need to maintain optimal usefulness by keeping the database up to date. This means offering businesses who provide information with sufficient incentives to supply information on a timely basis.

In addition, the information system needs to be a viable business concern. One alternative is to recruit sponsors, but this could introduce a bias in the information content. Revenue sources are thus needed that can preserve the independence of operations.

2. Offline organization

Since information is generated by people in the real world, and exchanged over the information system by the public, government offices, and businesses, that information could not circulate without real world connections. One reason many systems become defunct is that they are built without making arrangements that strengthen connections among users. Instead of merely building information channels online, offline organizations (human relationships) also need to be pursued at the same time (Figure 2).

Figure 2 Real World and Online Relationships



3. Case Study — Omiya City's OIC-Net

An initiative that attempts to deal with the three points mentioned above was begun late last year by the Chamber of Commerce and Industry in Omiya-shi, Saitama-ken called the "Omiya *Iki-iki* Town Care Network," or OIC-Net (pronounced *oishee-net*, a play on the Japanese word for propitious). Planned for launching in the second half of this fiscal year, the network boasts some unique features.

(1) Objectives of OIC-Net

The Chamber's first objective in developing OIC-Net is to build a care information system related to welfare and other aspects of daily life as part of the Chamber's larger mission of improving the community's welfare. The second objective is to promote local industry and expand business opportunities by encouraging the participation not only of welfare service providers but other welfare-related services. The Chamber also hopes the initiative will benefit its membership drive.

(2) OIC-Net Features

Below we examine the OIC-Net's design from the three perspectives described earlier.

1. Quality of information

To keep the database up-to-date, service providers are responsible for updating information and supplying new information. Since incentives were thought to work better than compulsory measures, service providers will be given space to promote themselves on web directory pages and elsewhere to post advertisements (Figure 3).

In addition, an email system will facilitate communication among service providers and users. Conference rooms for care managers will enable them to exchange views and conduct case studies.

With regard to processed information to aid decision-making, a key feature of OIC-Net is its reliance on enhanced maps. In the past, conventional systems have often displayed business directories in text format, leaving users to laboriously scan through the address column for nearby vendors. The OIC-Net displays a map of LTC service providers within a 500-meter radius so that the user can grasp the situation at a glance. An added convenience is that by clicking on the map, the user can view a particular business's directory page (Figure 4).

Other aids for users are the "silver mark" and barrier-free score. The barrier-free score reflects the degree to which a store has eliminated access barriers on a five-point scale (Figure 5).

Furthermore, an active format for assessing businesses is also being considered. Specifically, care managers would evaluate businesses based on site visits and users' opinions, and businesses would have an opportunity to respond.

2. Volume of information

Keeping in mind its mission to serve the local business community, the Chamber of Commerce considered ways from the start to broaden the scope of the OIC-Net beyond its primary emphasis on LTC service providers. Due to this orientation, OIC-Net extends across a full range of products and services related to daily life.

Thus instead of restricting listings to businesses designated under the LTC insurance system, OIC-Net is also open to local businesses such as restaurants and stores to post information. To qualify for participation, businesses need not provide LTC services, but only be "interested in long-term care or welfare and conduct business locally."

With regard to accommodating the sphere of activity of users, the network's flexibility is limited by the Chamber of Commerce's administrative boundaries. However, considering that Omiya City will be merging next May with the two neighboring cities of Urawa and Yono, we expect the network will expand its coverage to alleviate this problem somewhat.

3. Management issues

To make OIC-Net a self-sustaining operation, ways are being considered for generating operating revenues. Specific measures include collecting fixed fees from registered businesses, and charging advertising fees for web page advertisements and banner ads.

With regard to an off-line organization, plans call for the formation of a steering committee with representatives from business, the public, and local government to discuss the overall management of the network, and to form subcommittees as needed. The aim is to stimulate the dissemination and exchange of welfare information by creating a synergy between the online system and offline organization.

Figure 3 A Service Provider's Directory Page

Notes: In addition to basic information, the page describes barrier-free access features and includes a short comment. The map used here is Shobunsha's *Mapple* 10,000-to-1 scale map.

Figure 4 A Map Search Results Page on the OIC-Net

Note: Displays search results within a 100-meter radius.The map used here is Shobunsha's *Mapple* 10,000-to-1 scale map.

Figure 5 OIC-Net Directory Page of Service Providers

Note: Includes a barrier-free access rating, silver mark, and member mark.

4. Conclusion

As Omiya's OIC-Net prepares for its launching, similar care information systems are also being developed in other cities by the local chambers of commerce, NPOs, and other organizations.

Some people doubt whether these information systems can be effective because of the limited information literacy of elderly persons. However, the information literacy problem should be greatly alleviated as computer terminals improve and more people receive the necessary training. As society ages, information technology will play a crucial role in managing individual care needs and facilitating collaboration among LTC service providers, care managers, and local government agencies. Local care information systems will be tailored to different local care needs and resources, and be indispensable in satisfying those needs.

Public information systems presently exist such as WAM NET (Social Welfare and Medical Service Corporation) and the web sites of local municipalities. The next step in developing local welfare information systems calls for building cooperative and complementary relationships between these public information systems and care information systems constructed by other entities.

References

Elderly Service Providers Association, "Survey Project Report on Providing Comprehensive Information on Private Silver Services to Support Appropriate Care Management Under the Public LTC Insurance System," (in Japanese) March 1999.

Nakagawa Welfare Service Providers Association, "Building a Welfare Information Community Together — Report by the Committee on Model Projects for Information Centers," (in Japanese) April 1997.

Figure 6 Main Features of the OIC-Net

Shopping information	Shopping information supplied by businesses is compiled on web pages
Conference rooms for care managers	Conference rooms are provided for care managers to freely discuss problems.
LTC bulletin board for care managers	Bulletin boards enable care managers to manage each registered LTC insurance user on a separate page, on which managers record LTC services that have been planned and rendered. Entries can be made by LTC insurance users, service providers, and care managers, enabling their smooth collaboration.
Direct input by businesses	Businesses can input data directly onto their the web page, or fax the information to the network operator if they do not have a PC.
"Chotto"email	Email can be sent to a business directly from its web directory page. For example, if a user seeks a particular meal, the care manger can find and contact vendors prior to a visit. Or, the care manager can relay a user's complaint about a service provider by email.
Reverse auction	Users can take their requests to vendors and ask for bids. For example, if a user with a wheelchair wants to travel to Egypt, he can ask travel agencies interested in earning his business to make bids.