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SILHOUETTE

USING NOVEL INFORMATION
AND COMMUNICATION TECHNOLOGIES
FOR THE SUPPORT OF ELDERLY'S ACTIVE
PARTICIPATION IN THE INFORMATION SOCIETY



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ICT-based Support for the Elderly in Umeå: Stakeholders' view

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1. Introduction

In Sweden the responsibility for healthcare is split between the state, county council and the municipality. The state is responsible for the overall politics of health and medical service. The main responsibility of the county council is public health and medical care. It is their responsibility to see that all citizens have access to good care. The municipality's main responsibility is the care of the elderly and giving support and services to those who have finished their treatment at the hospital.

Over the past five years, the proportion of people with dementia have increased by 40 percent. In 2050, there is a risk that every second Swedish person aged over 85 are affected. One of the reasons is that health care has become increasingly better at curing other serious illnesses.¹ This will increase the demand on the resources of the municipality, but these resources are a limited and in order to produce high quality care the municipalities have to come up with new initiatives using Information and Communication Technology (ICT). The initiatives are based on national, regional and local government rules and guidelines.

This reports describes a summary of the senior-oriented initiatives in the Västerbotten region based on the interviews conducted with different stakeholders responsible for elderly care and people working with the nursing and care of elderly. The informations is based on the interviews of the following professionals:

- 2 representing the public administration
- 4 representing care providers
- 1 representative from academia
- 1 representative from a IT company working in the area
- 1 manager of operation at a Geriatric centre

2. Senior-oriented activities

2.1. Supporting the elderly communities in the region

The organisations that are responsible of the elderly care in the region of Västerbotten consists of the County Council of Västerbotten (VLL) that is responsible of the health and medical care of the senior citizens. The County Council is split in the following three levels:

- Regional health care that provides highly specialist care at the regional hospital. In the Västerbotten region the specialist care are provided by the University hospital in the North of Sweden, located in Umeå.

¹ <http://www.vll.se/default.aspx?id=58055>,

- County health care that are county hospitals. In Västerbotten there are two regional hospitals, located in Lycksele and Skellefteå.
- Primary care that provides general treatment, care and preventative work and rehabilitation that do not demand a special competence. In the County Council of Västerbotten there are 32 local health care centres.

The most important challenges in supporting senior citizens according to a representative of the social service at the municipality are that we lack competence at all levels in the organisation the staff need to be better educated. Another important area is to work with the so-called continuity, meaning the same care givers should give care to the same senior.

Today more elderly are suffering from multiple illnesses and accordingly, it is more complicated to give proper care to a person with multiple illnesses. It is really important to treat them professionally!

Nowadays it is difficult to recruit new care givers. Mass-media is painting a dark picture when it comes to elderly care, and we need to secure and raise the status of these kinds of jobs. This includes among other things higher wages.

There is a shortage of nursing homes for seniors in Umeå. There is a need of building more nursing homes. A lot of seniors prefer to live in a senior apartment or a tenant, but these should to be connected to the senior care.

When it comes to ICT, there is a future need for more individually adjusted ICT-solutions then it should be possible for the senior to stay at their own home longer with the use of ICT.

The increasing number of seniors place great demands on the need for education in the area of elderly care. One such example in this region is the programme that educates specialist nurses in dementia. The VOC (the care college) work in order to coordinate the national need for educated careers. In order to organise the courses and the communication between the school and its students as well as between the students themselves, ICT is a prerequisite especially in distance studies. A learning platform called samarbete.se is used for this purpose.

The idea of the specialist education is to establish knowledge about dementia. The courses are built upon nationally agreed policies and it is considered important to collaborate with the business. It is also important to follow up how students make use of the knowledge gained through the education.

The teams of work therapists do not follow any specific policy regarding how to develop dementia care, however they have a policy for care appliances. That policy focuses on the need of the caretaker rather than a diagnosis. The reason for not developing a policy for dementia is that it is not only a diagnosis of dementia that regulates the needs.

The teams of work therapists collaborate mainly with the municipality and the county council. The aim is to educate and inform with a specific focus on how to change peoples' homes into a better and safer milieu for the elderly. In part, the communication team can also work with questions that concern how to adjust working places according to specific needs. Mostly this effort concerns how to adjust a careers computer. An important aspect of the teams work is to keep a continuous dialogue with relatives.

Despite the continuous growing number of elderly the interviewed express that the priorities that are made today are wrong and that the abilities to stay ahead in terms of meeting the future needs were more easily achieved in earlier days. Today, there are fewer people working with these issues even though the supply of instruments and tools are bigger.

2.2. Usage of ICT-based solutions in supporting the elderly

There is a recent ICT solution called Ippi that is being used. It has not been used for long so there has not gain an extensive experience from using it. However it is seen to have a potential. . The Ippi is a service for information and communication between the municipality and the caretaker. It is a web-based unit, like a letterbox, that connected to the caretaker's television. The Ippi can handle images, audio, video and text messages from all sorts of mobile phones and computers. The caretaker needs an ordinary television and a mobile coverage. The Ippi uses an ordinary mobile phone number and has an e-mail address that is connected to the sim-card in the Ippi.²

Another example of ICT-based solution is the so-called Giraff that is a mobile robot aiming at making elderly's contact with others more easy.³

Finally, Myjoyce is a web cam ICT solution that supports both the care givers and takers via for instance the services; TV-telefoni, Nattfrid, Mobilkoll and TV-telefonkiosk.⁴

Within the municipality home service they use PRATOR that is a planning tool for care givers. It is used in order to plane a persons need for care. It is mostly used for discharges from hospitals or some kind of nursing homes..

ICT is also used for consultants with the health care centres in the south of Lapland as well as in care planning. An increased use of ICT means that it is possible to consult a specialist units within the county council as well as the home care in the municipality. There is a to see ICT also involved more within education and supervision.

² . www.ippis.se

³ <http://www.robotdalen.se/Projekt/Utvecklingsprojekt-Giraff-AB-i-Sverige/>

⁴ . <http://www.myjoyce.com/>

3. 3 National, regional and local programs and strategies of supporting the elderly

3.1 Practical implementation of programs

A challenge in today's dementia care has to do with lack of leadership. Good and qualitative care puts high demands on education and staffing. The fact that there are courses in dementia care available within the County Council is a great strength, especially since theory and practice is mixed in a sound blend during the education. Collaboration with the surrounding industry is very positive since it gives already employed care givers an opportunity to do further training.

3.1 Needs concerning creation and implementation of programs enabling wider usage of ICT

In the interviews the care providers stressed the importance of collaboration between different care providers, both public and private and that well designed ICT solutions could support and streamline the work. They also stressed the importance of increased education and information about elderly and dementia.

In order to handle the future with a bigger population of elderly, elderly with multi diseases and elderly with dementia it is important to increase and to better utilise the resources in elderly care. It is also important to use ICT to support elderly concerning promotion and support for:

- a healthy lifestyle
- social participation
- social stimulation and brain exercises
- improving nutrition
- increase safety when living at home
- empowering the elderly and caregivers

4. Benefits and barriers in implementing ICT-based solutions for supporting the elderly

4.1 Benefits

The vision is to continue the development of education with high quality, preferable to use ICT-based solutions. The education must be combined with supervision during and after the courses. There is also a need for good leaders with knowledge about dementia. Furthermore there is a need for training among our leaders. It is possible to utilise ICT in such training. ICT is already implemented in the training programmes.

There is a need of platform for sharing knowledge within and between the county council, the municipality and the education coordinator. There are many advantages of a development towards greater utilisation of ICT. However it should not be forgotten about the importance fo physical meeting.

The future vision includes the usage of ICT. The groups with specific needs such as people suffering from dementia, running the risk of falling behind due to difficulties of using technology. The technology has to be very easy to use and design to adjust to its users special needs and way of working. ICT is an opportunity for the elderly, caregivers and families.

In the future one should be able to choose where to live, e.g. in a nursing home, senior apartment of own home. The senior should have continuous contacts with caretakers and relatives. The caretakers and relatives should be present and in control as well as visible. This kind of vision can definitely be supported by ICT. The municipalities and County Council have to take responsibility for the organisations that suffer from bad economics.

Another important question to work with is that caretakers must get a higher status and helped. People suffering from dementia should be offered more and better stimulation both physically and mentally. Today much research is focusing on nano technology and we need to make use of that research.

The areas where ICT could benefit supporting the elderly according to the interviewed are:

- Coordinating the different professionals handling the support of elderly
- Preventing social isolation and exclusion
- Support social participation
- Preventing mal nutrition and depression
- Improving quality of life for elderly

4.2 Barriers

Students claim that it varies a great deal when it comes to the way various organisations prioritise competence and priorities. The students report that the knowledge about education and policies are not very well implemented and known This leads to difficulties to spread new knowledge and work methods to the care giver organisations.

The representative from the IT company states that they develop new tools/instruments based on the so-called super normal. One example is the development of computers for people with a disability. Today we had come a long way to consider this group of users in the design and development of new ICT. However, it seems that this knowledge is not built into for instance, iPads. The concept Design for All raise false hopes and it might make you think that everything is possible to adjusted to everybody. This is not the case, it seems like more and more people fall behind since the technology is not adjusted with regards to their needs.

In work practice ICT should be seen as a complement to ordinary care. The challenge is that older staff lack ICT-competence. The ICT for care within the municipality is old fashioned and need to be updated. It is ve important to involve staff in the development and implementation of new ICT.

The main challenge has to do with lack of knowledge within home-based care. This is one reason why our society does not succeed very well when it comes to taking care of people wit dementia. We lack leadership, and we need to prioritise dementia to a greater extent. People in general need to be better informed in questions concerning dementia. This might lead to changed attitudes and values.

The main barriers for implementing ICT-based solutions to support the elderly are:

- Limited resources, in terms of financial and staff
- Low status of work concerning elderly care
- Resistance to changes for the care staff and elderly
- Low computer literacy among the care staff
- Care staff are overloaded with work
- Bad communication and information exchange between caregiving organisations
- Poorly coordination between different caregiving organisations that leads a bad use of scare resources
- Better education concerning elderly and dementia
- ICT interface that is not user friendly and easy to use.

5. Potential of the region to utilise ICT-based solution for supporting activity of the elderly

5.1The size of the regional market

Based on the knowledge of the estimated increase of the population over 65 and the estimation that there is a risk that every second Swedish person aged over 85 will have some kind of dementia and that there is to little resources in the elderly care, it is important to utilise ICT-based solutions in order to support and plan the best use of the scare resources. ICT should also be used to support, activate and stimulate the elderly as well as relatives.

5.2 The R+D and innovation potential

Today the region of Västerbotten uses several ICT-based solutions. For example all health care centres are equipped with a video conferencing system that could be used for specialist consultations, rehabilitation, transfer of images, radiographs etc. E-health services in general are well established in Västerbotten and most of the employees have a high degree of e-health literacy. The relevant employees of the county are familiar with e-

health technology and have a positive attitude towards trying new e-health services. Many of the ideas for new e-health services come from practicing staff. Sweden in general has a very good infrastructure that can provide e-health services even in the rural areas. The county of Västerbotten has a separate net, AC-net, that provides all the different institutions of the county with fast access and can transfer images and videos at high speed between different users.

6 Recommendations of regional stakeholders

Based on the interviews the following recommendations should be stressed.

- An increased collaboration between different care-providers, both public and private.
- Increased and improved education and information about elderly care and dementia
- Increase the status of work within elderly care
- Use of ICT to improve quality of life for elderly and care providers
- Improve and not decrease the personal meeting with elderly
- Design user friendly, natural to use, easy to use and adjustable ICT for professionals, relatives and elderly
- Create a good communication between all actors including the elderly responsible for the care of elderly