

ICT solutions to facilitate integration in home care

**Means and Resources,
Role of information technology**

Einblicke in finnische Konzepte

Merja Tepponen

Member of the Finnish National Expert Panel

Director of development

South Karelian District of Social and Health Services

**Teija Hammar, Senior Researcher, National Institute
for health and welfare**



Funded by the European Commission
under the Seventh Framework Programme
Grant agreement no. 223037

South Karelia District of Social and Health Services (Eksote)

- Today 4000 employees
- Budget for 2011 is 377M€
- Geographical area 7.200 km² with population of 134 000
- Our services include
 - Social and health care services to senior citizens
 - Social and health care services to children
 - Social services to adult citizens
 - Social services to families
 - Dental care
 - Health care for schools and students
 - Rehabilitation equipment
 - Imaging services
 - Laboratory services
 - Mental care
 - Drug abuse care
 - Maternity clinic
 - Health emergency
 - Hospital
 - Health centers with bed wards
 - Services to disabled



Introduction

There is a need to develop more productive and functional ways of supporting older people to sustain a good quality of life and to be able to continue living at home longer.

- A new service model for nursing care at home has been developed based on a partnership between a local authority, health and nursing entrepreneurs, as well as technology and communication companies.
- Cooperation and transfer of information between professionals and between home care and hospitals can be made more effective by using a broadband connection.
 - The project has been carried out in South Karelia situated in the South Eastern part of Finland. The project lasted three years (2004 – 2007).



Why was this project developed/implemented?

- Home care patients are increasingly old and frail with multiple service needs. Acute illnesses and decline in functional ability increases the need for service support.
- There have been problems with the information transfer across organisational boundaries, in how services work together to provide care, and in the integration of services between hospital and home care as well between doctors and nurses.

Main features of the example

- Care of older people with chronic diseases requires close cooperation and seamless transfer of information between professionals and between home care and hospitals, which can be made more effective by using a broadband connection.
 - Solutions include remote doctor contact using webcam, broadband or video phone. For example, equipment is available to home care nurses to enable them to undertake biochemical testing (e.g. CRP, Hb). The nurse can send the results to a doctor via broadband, who can then analyse and interpret the results and give instructions directly to the nurse while she/he is still in the patient's home.
 - Project: HyLa –Quality to Nursing Care with New Welfare Technology 04-07

HyLa –Quality to Nursing Care with New Welfare Technology 04-07

Project objective

- Support older people and people with chronic disease to continue living at their homes
- Develop a new operation model in which the quality of nursing home care will be improved by using new technology
- Develop homecare processes and practices to optimize cost –effectiveness and influence
- Near patient testing (for example CRP, Hb, INR, HbA1c, Kol, PLV, urine albumin/creatinine), remote EKG
- Remote doctor solution by webcam, broadband or videophone
- Experiment an integrated use of private and public sector patient database by using terminal stations

Outcomes from the project

- Older people and people with chronic disease people can live longer at their homes
- More effective co-operation between a doctor and a nurse
- More time to the nursing
- Model for the co-operation between nursing home care personnel, clients/relatives and third sector

Experience gained from the project

- All new technology should be introduced **very carefully to older people at home**

The technology of doctors' remote practice

- Laptop with camera and secured communication allows picture and voice connection between the doctor and client
- This system was used in areas where distances are long
- Doctor has all patient data available and so she / he is able to do all changes in real-time



In Kotka, general practitioner Merja Nurmi uses the remote doctor's appointment technique with home health care and assisted living patients.

What are/were the effects?

- The new model will save time and money as well as contribute to the quality of older people's lives.
 - Older people were able to stay at home despite having acute or chronic diseases and frailness. Visits to accident and emergency as well as hospital stays were avoided, which is preferable for all, especially in rural areas where distances are long.
- As a result of the project a new home care team offering short term intensified home nursing and home care was established.
 - The team consists of health and social care professionals working in cooperation with entrepreneurs operating in the same field as well as third sector actors, older people and their relatives/friends.
- Different technical solutions (webcamera, broadband or video phone as well as testing equipment) were found to be useful tools in home nursing.
- ✓ *The work with discovering and fine tuning suitable ICT solutions that will increase service productivity continues.*

Strengths and limitations

Strengths

- Cooperation between different actors is more effective
- The transfer of information is in real time
- The model supports older people to live at home longer with potentially better quality of life
- There are cost savings from reduced hospital or GP attendance
- Services to older people are provided in a more flexible and user-friendly way

Challenging issues...

- Some ICT solution problems
- It takes time and know-how to train the personnel to utilize new operation models
- Slow diffusion rate
- Changing the traditional ways of operating and thinking is challenging

Conclusions

- Using ICT solutions and improved cooperation between different actors can facilitate integration of services and enhance productivity of work. Such models can be rolled out across different areas and be sustainable.
- The importance of functioning telecommunication connections also in rural areas should be emphasized in national level policy-making

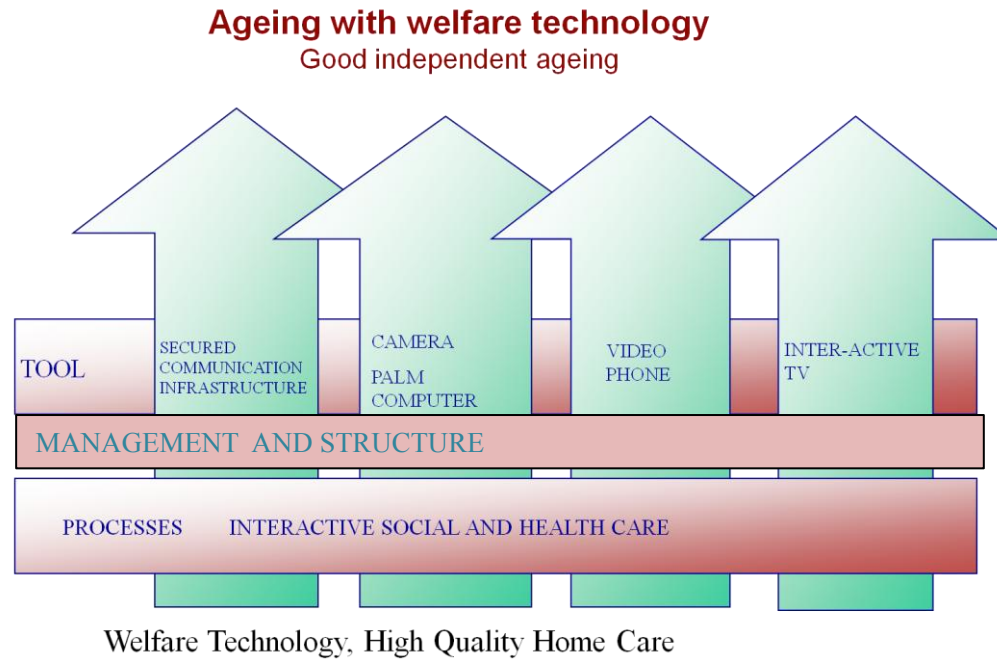
Experiences from other relevant projects (1)

The SeaELLI, ArchipelagoELLI,
SaimaaELLI (ERDF) 2006-2008 (national)

- Implementing latest available technology for providing interactive services in everyday life of older people – a video phone pilot
 - ❖ Integration of working methods, technology, services
 - ❖ Increased feeling of safety
 - ❖ Fast contact with health personnel when needed
 - ❖ Improved social networking for older people
 - ❖ Optimized cost efficiency
- Experiences
 - ❖ All the participants thought the video phone is easy to use
 - ❖ The benefit of the video phone is greater to the personnel and the relatives (the picture gives valuable information about the client)
 - ❖ It's important that relatives are engaged when introducing new technology to older people
 - ❖ The video phone can save the personnel from unnecessary
 - ❖ It's important that the health personnel is engaged when starting up the pilot



Ageing with welfare technology



Experiences from other relevant projects (2)

The Mobile Clinic (2010-2011)

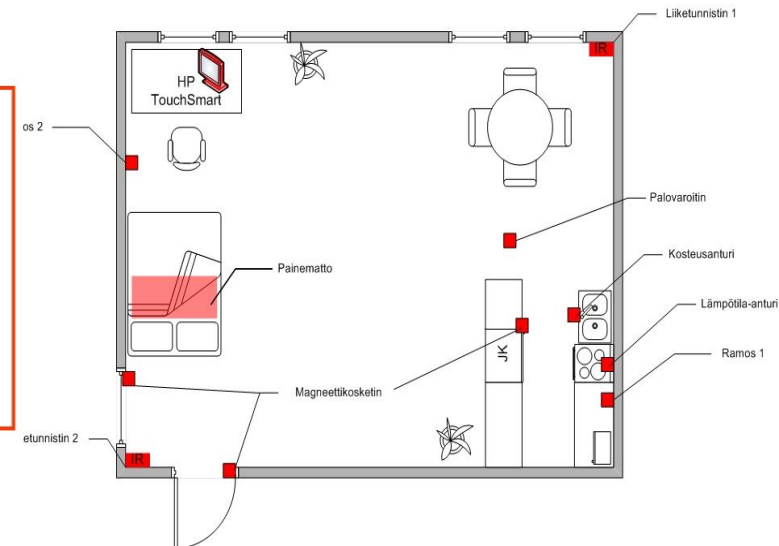
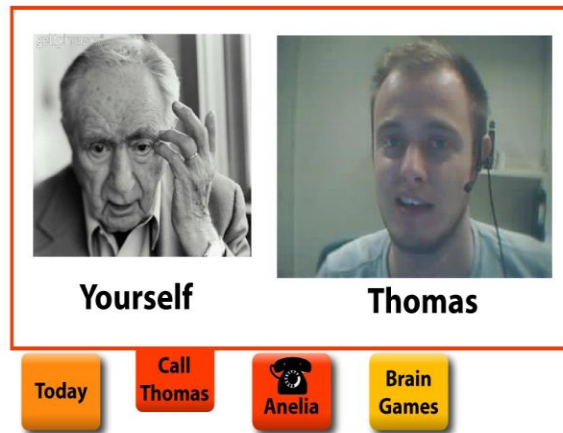
- Citizens living in rural areas can get nurse's services from the Mobile Clinic
- ICT enables professionals working in the Mobile Clinic and using laptops to have a secured access to Eksote's common Electronic Patient Record, Web Lab and the Internet. The built in wireless network can also be accessed outside the vehicle when needed (e.g. consultations in nearby buildings)



Experiences from other relevant projects (3) ISISEMD

Intelligent System for Independent living and Self Care of seniors with cognitive problems or Mild dementia

- The objective of ISISEMD is to offer a platform that differentiates it from existing solutions instead of offering one single tele-care system.





Thank you for your attention!

Vielen Dank fuer Ihre Aufmerksamkeit!

