



NPP Surveys in Finland

Final results

eHealth solutions across the Northern
Periphery

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Oulu, Finland

Ilkka Winblad and Jarmo Reponen
FinnTelemedicum/University of Oulu and the team



Surveys in Finland

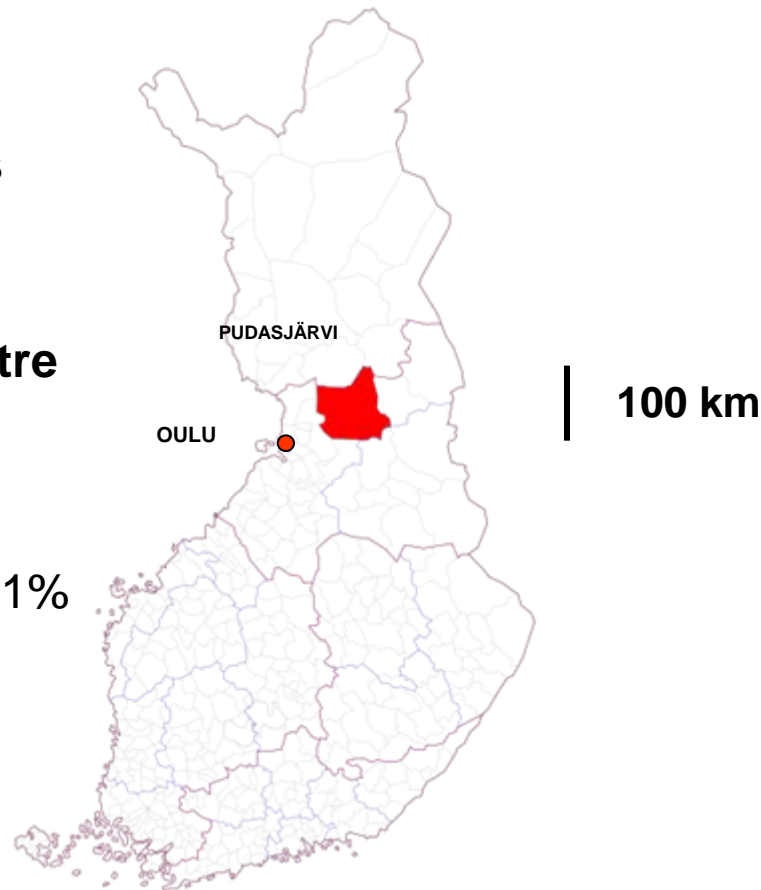
- Remote wound treatment consultations
 - Oulu University Hospital ↔ Pudasjärvi Health Care Centre
 - Pudasjärvi Health Care Centre ↔ home nurse at patient's home
- Remote speech therapy at Pudasjärvi Health Centre
 - Speech therapist ↔ child at a remote school
- Remote monitoring platform for health parameters
 - For weight slimming group
 - For cardiac patients

Remote wound treatment consultations

Geographic setting

Oulu University Hospital
Versatile high quality services

Pudasjärvi Health Care Centre
9000 inhabitants
Area 5867 km²
Population density 0.65
Proportion of 65+ population 21%
Reindeer management area



Remote wound treatment consultations

Clinical setting



**Oulu University
Hospital (OUH)**
-dermatology

**Pudasjärvi Health
Care Centre (HCC)**

Source: Yle Akuutti

Tandberg C20 Full HD with two 42" screen
Tandberg Centric 1700 MXP

Remote wound consultations

Population and method

Features of the patients

- 8 patients, mean age 68 yrs (42 - 85)
- Mean of distances:
 - health care centre (HCC) 16,4 km (0,2 – 65)
 - Oulu University Hospital (OUH) – Pudasjärvi 90km
- Travelling times:
 - HCC 2,8 h (1- 9)
 - OUH 4 h (2 – 9)
- Means of transport: 1 bus, 4 saloon car, 1 taxi
- 2 in the need of escorting for HCC visit, 4 for OUH visit

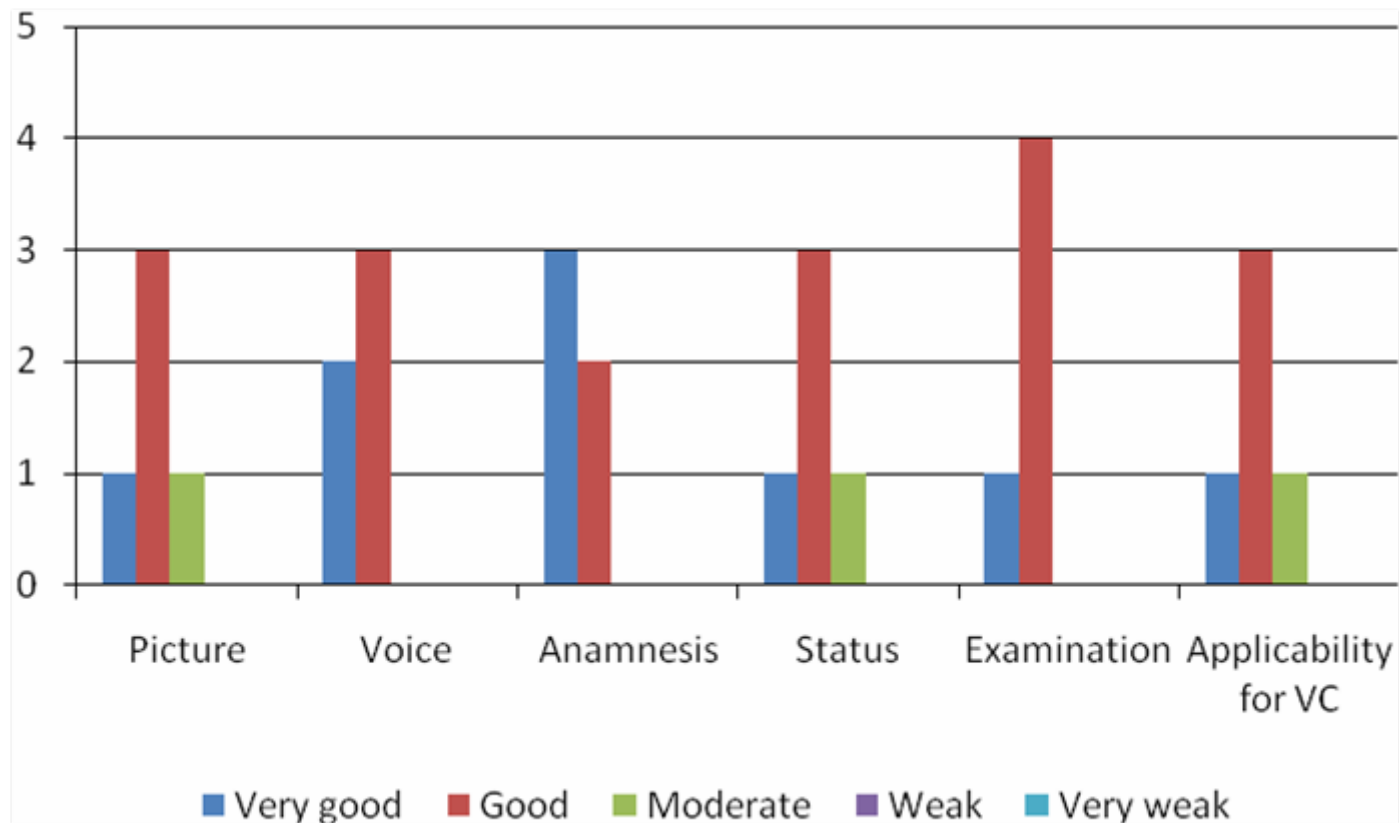
Measurements

- Structured form sfrom patients and professionals of HCC and OUH

Remote wound consultations

The quality of the information received at OUH

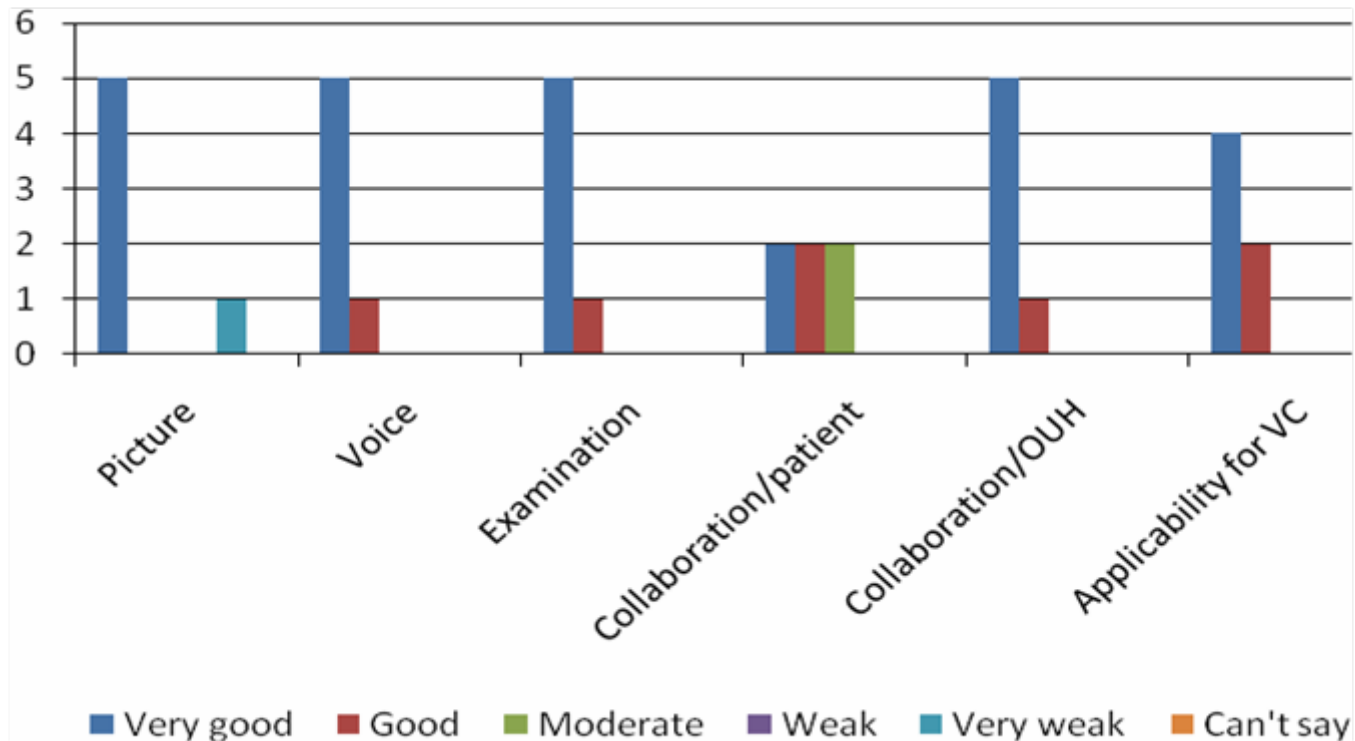
Numbers of cases



Remote wound consultations

The quality of information received at HCC

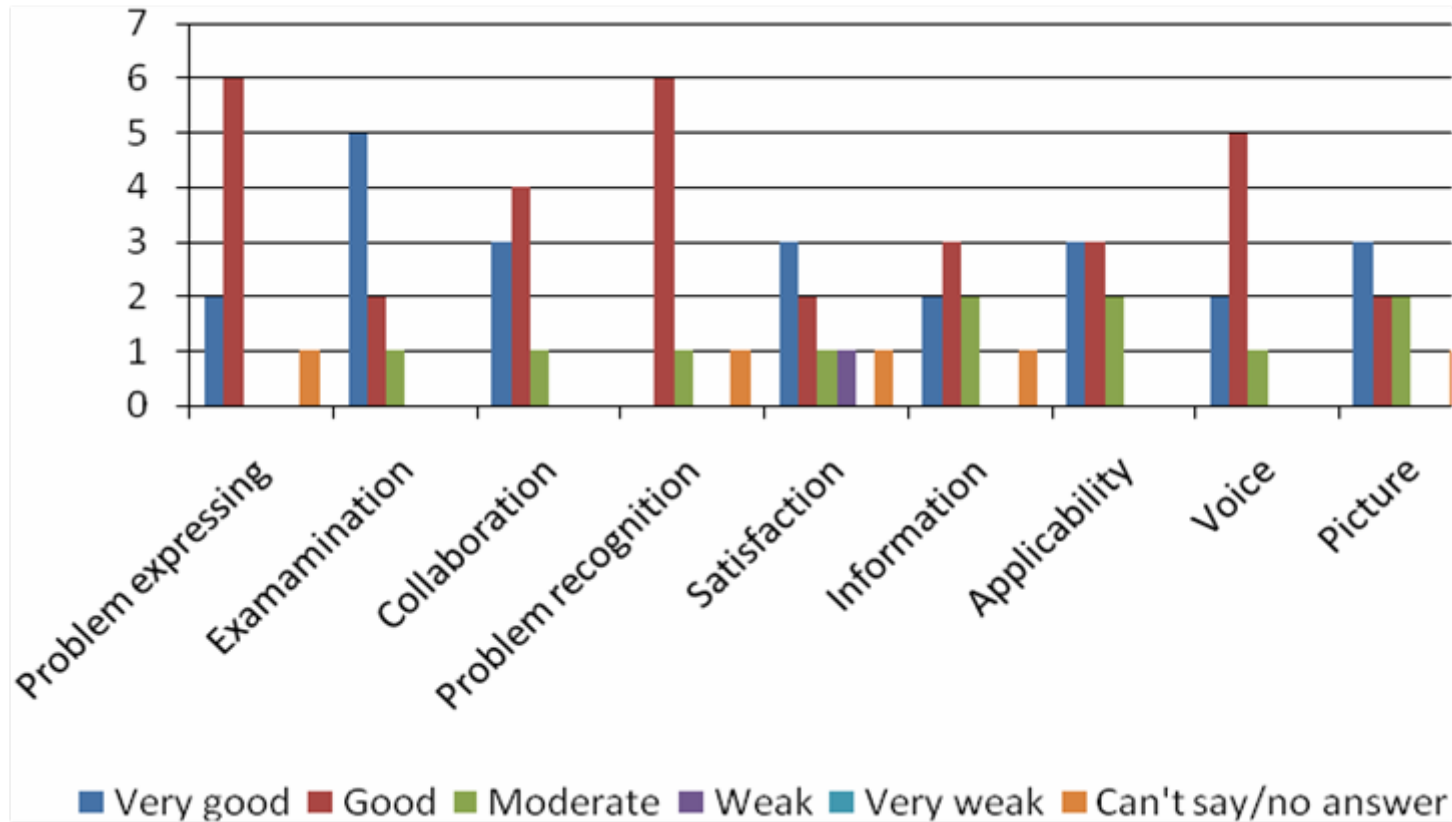
Numbers of cases



Remote wound consultations

Point of view of the patients

Numbers of cases



Remote wound consultations

Point view of the organizations, SWOT and eHIT

OUH SWOT pinpoints

Saves travelling costs

Quality of care at HCC

Quality of critical information

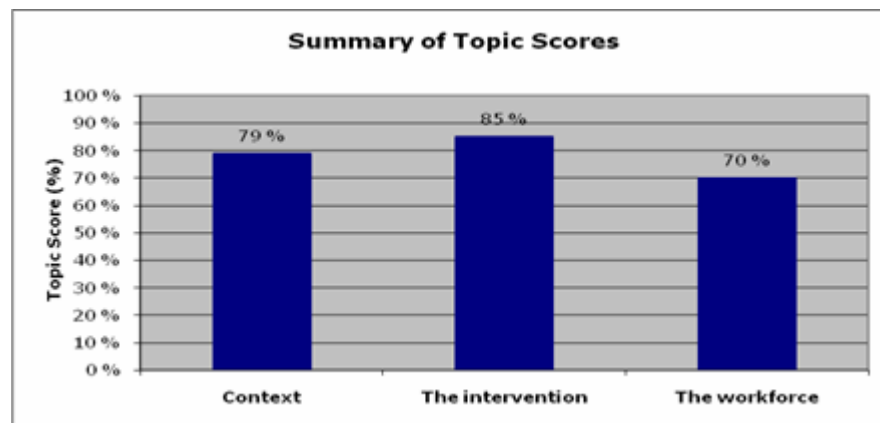
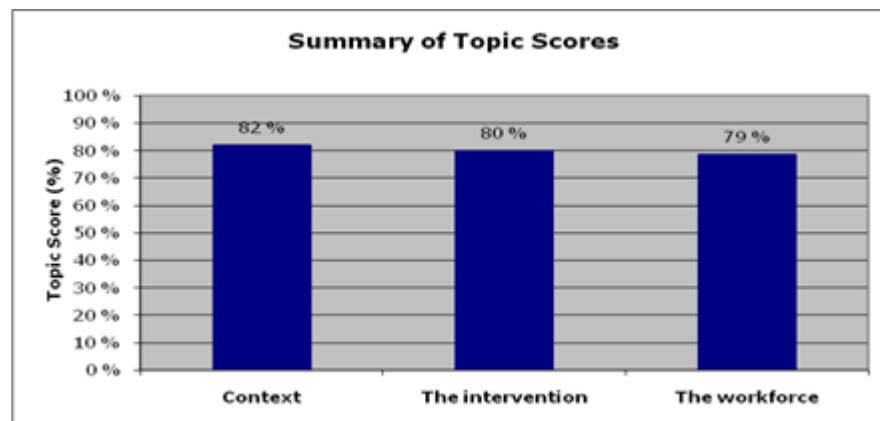
HCC SWOT pinpoints

Quality of information

Patient satisfaction

Easy access

Attitudes of the new organization



Remote wound consultations

Usage costs (€) on the grounds of 20 annual cases

Conventional

- Municipality 4412
- Patients 1608
- Social Security Institute 1035
- **Total 7055**

Videoconferencing

- Municipality 3652
- Patients 696
- Social Security Institute (minor)
- **Total 4348(+)**

Taking the investment costs into consideration there should be a considerable but still reasonable amount of the usage of videoconferencing for other consultations and education in order to be cost-effective

Remote speech therapy

Positive and negative findings

- Easier for children to concentrate to the lesson compared to f2f sessions
- Possibility to communicate with the teacher after the session
- Children liked the procedure
- Therapy was progressing and results were seen.
- Parents were satisfied with the possibility to avoid excess travelling up to tens of kilometers
- Some of the children needed to get used to the equipment/distant – learning, so the sessions were shorter
- Moving the video-unit was considered taking too much time from the teachers
- Difficult to arrange practise session at home –physical material
- Sometimes the videoimage froze and was pixelated (obviously a disturbance in the ip-network at Pudasjärvi area)
- Sometimes the speech therapist had a difficulty to distinct if S or R was pronounced correctly.

Remote speech therapy

Geographic setting



The speech therapist at the Pudasjärvi health care centre

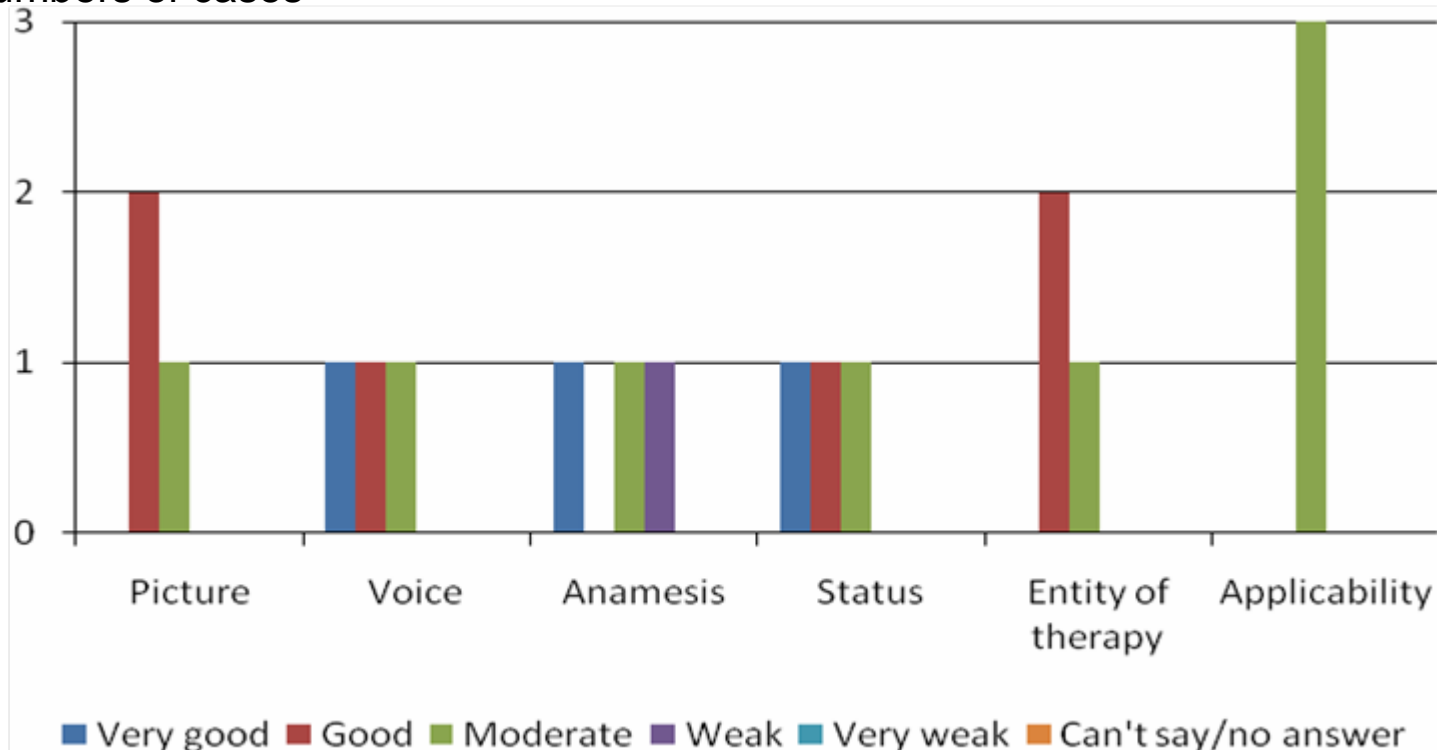
Children at a the remote schools of Aittojärvi and Kipinä



Remote speech therapy

Point view of the therapist on the quality of information

Numbers of cases



Remote speech therapy

Point view of the organization, SWOT and eHIT

HCC SWOT pinpoints

Efficiency

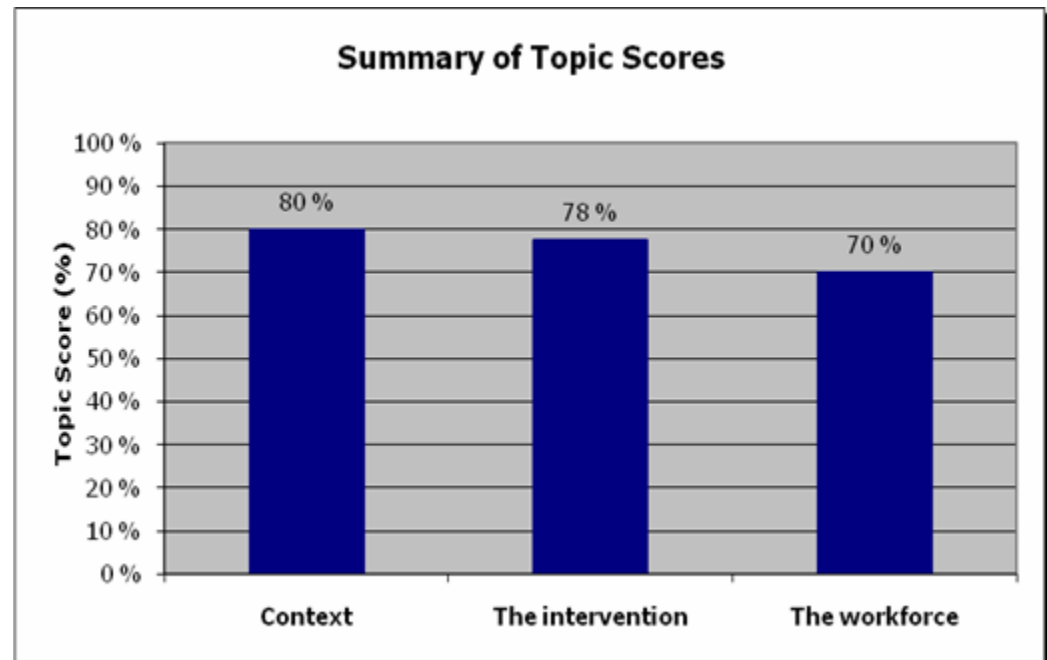
Common virtual room

Quality of information

View control

Arrangements of room
space

Teachers working time



Telemonitoring health parameters

Telemonitoring platforms CheckUp©Life
For slimming group
CheckUp©Care cardiac patients

Setting: Technology Health Care Centre
Kaakkuri of the city of Oulu



Telemonitoring health parameters

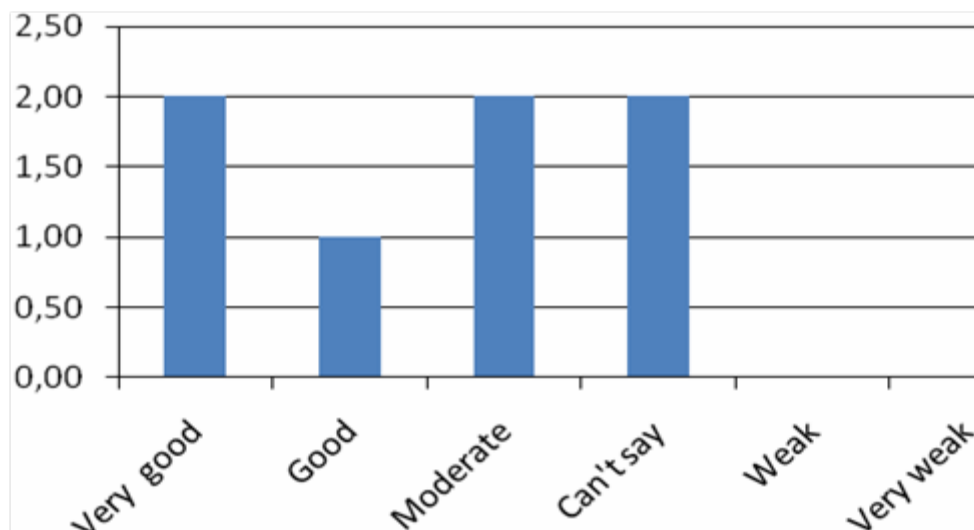
Weight slimming group

- Population
 - Six female, one male
 - Mean age 58 (38- 70)
 - BMI 34
- Methods
 - Structured forms, measuring height, weight, waistline, blood pressure, serum cholesterol, plasma glucose
- Setting
 - Five used CheckUp©Life at HCC, two at home
 - Slimming sessions conducted by a specially trained nurse

Telemonitoring health parameters

Results of the weight slimming group

- The planned advising sessions partially interrupted due to the swine flu epidemics
- No significant changes in the shirt 14 weeks in health parameters
- Opinions of the participants:



Telemonitoring health parameters

Weight slimming group

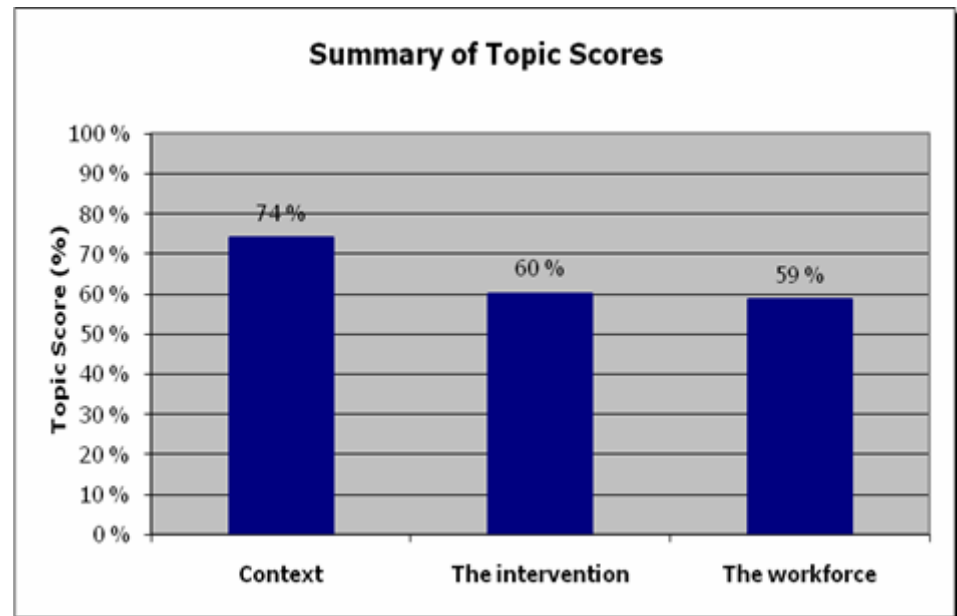
Point view of the organization, SWOT and eHIT

Kaakkuri HCC SWOT pinpoints

Motivation of patients

Equipment easy to use

Clumsy screen



Telemonitoring health parameters

Following up cardiac patients

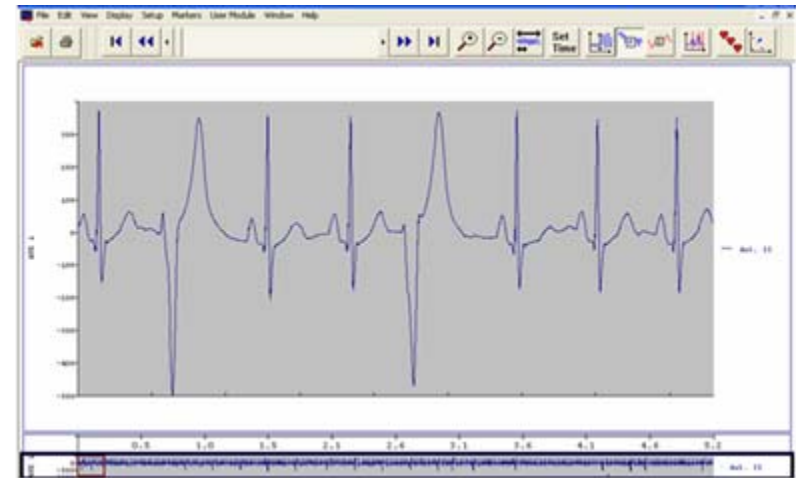
- Population
 - Target: 3 patients with cardiac arrhythmia on the waiting list for OUH
 - Realized: two females aged 23 and 28 yrs with cardiac arrhythmias, care contacts with a HCC physician
- Method
 - Structured forms, measuring ECG and labs at home
 - Aspects of patients' safety taken into account
- Setting
 - Using CheckUp©Care at home, measurement results controlled at HCC

Telemonitoring health parameters

Following up cardiac patients

Results

- Patients point of view
 - Very satisfied
 - Equipment easy to use
- Professionals point of view
 - Collaboration and feedback system worked very well
 - Quality of the ECG evoked criticism
 - Criticism also for used lab units



Telemonitoring health parameters

Following up cardiac patients

Point view of the organization, SWOT and eHIT

Kaakkuri HCC SWOT pinpoints

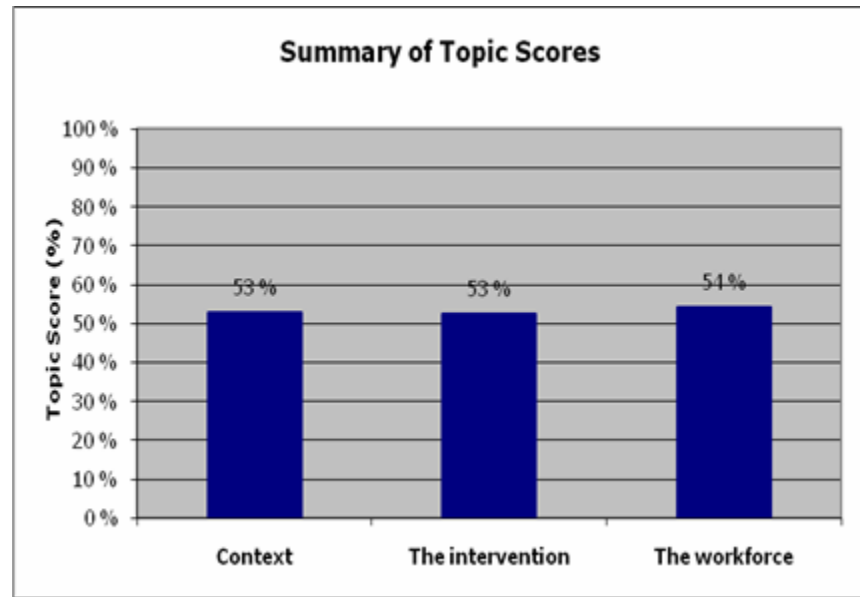
New interesting tool

Fits for a limited patient group

Quality of the ECG

Data security risk

-user Id and pass word not enough



NPP surveys in Finland ...to conclude

Televideo conferencing systems

- In line with the national, regional, and local health care policies
- Easy to use
- Quality of information good enough for clinical use
- Patients satisfied
- Feasible and efficient mode of action
- Organizations mature to implement the service
- Cost-effectiveness depending on total volume of usage

Remote monitoring health parameters

- Patient satisfied
- Quality of outlook of parameters needs improving
- Best area of usage in peripheral small service units