

# Mid-term evaluation report in tele-mentoring implementation including necessary adjustments

## Output No. 5.3

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WP no.: 5

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WP title: Implementation of tele-mentoring for career development of health professionals in remote primary health care

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Reviewer: Tobias Larsson, Blekinge Institute of Technology, Sweden

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## 4. List of Abbreviations

BelMAPO	Belarusian Medical Academy of Post-Graduate Education
OCRH	Ostrovets Central Regional Hospital
FLUAS	Flensburg University of Applied Sciences
BSR	Baltic Sea Region
KPHCD	Kauhava Primary Health Care District
SOHCD	South Ostrobothnia Health Care District
SEAMK	Seinäjoki University of Applied Sciences
CNE	Continuous nursing education
CCM	Chronic Care Model
ESFD	Estonian Society of Family Doctors
GP	General Practitioner
Svoog	Web-based training program
DSS	Decision Support Systems
Skype	VOIP service
LUHS	Lithuanian University of Health Sciences
VUHSK	Vilnius University Hospital Santariškių Klinikos
PHC	Primary health care
ICT	Information and communication technologies
WLAN	Wireless LAN
N/A	Not Applicable
PDP	Personal Development Plans
CME	Continuing Medical Education
CPD	Continuing Professional Development

## 5. Abstract

As our population ages, society faces new challenges. Demand for primary health care services is rising: with the retirement of older professionals and unwillingness amongst younger professionals to re-locate to remote areas, there is a shortage of physicians, especially in rural areas. It is to meet these challenges that the project “PrimCareIT – counteracting brain drain and professional isolation of health professionals in remote primary health care through tele-consultation and tele-mentoring to strengthen social conditions in remote BSR<sup>1</sup>.”

The output of tele-mentoring work package: “Mid-term evaluation report in tele-mentoring implementation including necessary adjustments” reviews the progress in the five pilots that have been implemented. Pilots are planned to be finished at the end of 2013 in the four partner countries Belarus, Estonia, Finland and Lithuania with nine partner organisations cooperating. The mid-term evaluation checked the current the processes and necessary adjustments.

The output is carried out by the work package “Implementation of tele-mentoring for career development of health professionals in remote primary health care”. It is their third report after

1. “Report of situation analysis and process description and state-of-art of tele-mentoring solutions in the 6 pilot sites and in the BSR”; the report was aimed to investigate the extent to which technological tools and solutions are used for support on organizational, regional and country level in tele-mentoring relationships.

and

2. “Implementation plan for the five tele-mentoring pilot regions”; carried out how to implement the tele-mentoring study processes in the four partner countries Belarus, Estonia, Finland and Lithuania with nine partners cooperating in five pilot sites.

## 6. Introduction

Mid-term evaluation of pilots: reviews the progress in the five pilots that have been implemented. The tele-mentoring pilots are implemented by

- #1 Belarusian Medical Academy of Post-Graduate Education (BelMAPO) and, Ostrovets Central Regional Hospital (OCRH)
- #2, Kauhava Primary Health Care District (KPHCD)
- #3, South Ostrobothnia Health Care District (SOHCD) and Seinäjoki University of Applied Sciences (Seamk)
- #4, Estonian Society of Family Doctors (ESFD)
- #5, and Vilnius University Hospital Santariškių Klinikos (VUHSK).

The evaluation of the reports was done by Lithuanian University of Health Sciences (LUHS).

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<sup>1</sup> <http://www.primcareit.net/>

## 7. Mid-term evaluation

The purpose of the mid-term evaluation is to check the state of the process and to identify areas of improvement in the running pilots. Furthermore the evaluation should highlight and resolve the resource management by determining whether the pilots will lead to the achievements of the designed objectives.

The results, if necessary, will in consequence adjust the implementation process.

### 7.1. Mid-term evaluation template

The following template was intended to use by the pilot responsible persons in order to make the results comparable to each other. However 4 of 5 pilots used the template.

Pilot template
<p>Please provide information on your pilot project as asked below.</p> <p>Aim of your pilot project, i.e. the benefit you hope to gain through the project or the problem you hope to solve.</p> <ul style="list-style-type: none"><li>• Goals of your pilot project, i.e. the project goals you have set up that are measurable.</li><li>• Describe the pilot timeline and what the status for your project is.</li><li>• Technical status, what technology did you purchase or do you plan to purchase and where are you on implementing these.</li><li>• Consultations or mentoring sessions carried out so far.</li><li>• Experiences from carried out consultations/mentoring sessions.</li><li>• Level of satisfaction so far staff/patients (or other stakeholder) if measured.</li><li>• Please describe any setbacks or hurdles you have experienced so far.</li><li>• Please describe any factors for success you have identified so far.</li><li>• Other issues you would like to input.</li><li>• Describe how you have documented consultations/mentoring sessions.</li><li>• What actions for sustainability of your pilot project have been taken or do you plan to take?</li><li>• How do you transfer experiences from the pilot into the organisations involved?</li><li>• Describe the organisation of your pilot - staff, management etc.</li></ul> <p>Please provide following documents, if applicable:</p> <ul style="list-style-type: none"><li>• Attach pilot project plan.</li><li>• Attach financial evaluation/cost benefit analysis</li></ul> <p>Attach survey if used in pilot</p>

Table 1: Mid-term evaluation template for pilots. Created by: Clara Axelsson; e-Health Institute Linnaeus University

### 7.2. Managing an Mid-term evaluation

Qualitative Mid-term evaluation of document analyses to provide rich descriptions of pilot processes.

Document analysis will be done by Professor Giedrius Vanagas, PhD, MPH; Lithuanian University of Health Sciences for evaluating pilot outcomes, capturing pilot processes to identify the unknown variables one might want to measure in greater depth to assess the quality of pilots.

The method to collect was through the questionnaires sent to pilot coordinators in 4<sup>th</sup> of June 2013 and feedback was expected on 17<sup>th</sup> of June 2013. The data input was done by pilot coordinators and gathered data was sent for collection to tele-mentoring workgroup coordinator Kristjan Krass.

The data analysis will be finished at the end of August of 2013.

## 8. Mid-Term evaluation documents

### 8.1. Pilot # 1. BelMAPO, OCRH; Belarus

#### 8.1.1. Aim of the pilot

The goal of the pilot is the professional support of PHC specialists in remote areas by means of information and communication technologies (tele-mentoring and tele-consultations)

- to raise the professional level of the PHC specialists in remote areas with the help of tele-mentoring and tele-consultations.
- to decrease the professional isolation by means of information and communication technologies.
- the improvement of cooperation between Baltic sea countries on tele-mentoring and tele-consultations (experience exchange, meetings)

#### 8.1.2. Goal

- professional level improvement of the PHC doctors in remote areas, esp. in rural areas,
- career motivation of PHC doctors to work in remote areas;
- decrease of professional isolation;
- large-scale implementation of eHealth ;
- increase of the access to the special medical aid and to counteract brain drain.
- Professional support of 8 GPs and 70 doctors of OCRH (mentees) by BelMAPO specialists (mentors)
- Professional support of doctors from remote areas

#### 8.1.3. Timeline and status of the pilot

Steps	Term	Status
Learning program with amendments based on the testing results	February 2013	Finalized (using own technical recourses)
Tele-mentoring	February 2013 – June 2013	In progress
Mid-term evaluation	June 2013	In progress
Updated process of tele-mentoring	June 2013 – October 2013	Not started
Pilot analysis	November 2013	Not started

Table 2: Project procedures and milestones pilot 1.



#### 8.1.4. Technical aspect.

At the moment the pilots are carried out with the help of the present (non-project) equipment of BelMAPO and Ostrovec CRH. Ostrovec CRH plans the purchasing of 5 tele-consultation systems.

The procurement will be carried out as soon as we receive advance payment according to the list of needed equipment.

WP5	Tele-mentoring	8 on-line 5 video-conferences (including 2 webinars)
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Table 3: Tele-consultations and tele-mentoring carried out pilot 1

#### 8.1.5. Experience gained while tele-consultations and tele-mentoring.

Implementation of the pilot proved the necessity of equipment and technologies improvement for successful tele-consultations and tele-mentoring.

Evaluation Criteria	Pre-testing	Mid-term testing
Satisfaction with technical aspects (%) (How satisfied were you with the functionality of the used technology during the connection?)	50	73
Satisfaction with content (%) (How useful do you consider the content of the session was?)	70	75
Percent of the interested in tele-mentoring	100	100

Table 4: Level of satisfaction pilot 1

#### 8.1.6. Obstacles

- Technical equipment
- Lack of experience in tele-mentoring
- Absence of legal acts on distance learning, mentoring and tele-consultations in Belarus

#### 8.1.7. Factors of success

High level of motivation and interest of the participants in tele-mentoring and tele-consultations usage. (Percent of the interested in tele-mentoring/tele-consultations =100%).

<b>Advantages</b>
High motivation (mentors, mentees, politicians)
Teaching programs
Skilled staff

Table 5: Factors of success in pilot 1

There was also stated the interest of stakeholders and politicians in using tele-consultations and tele-mentoring in Healthcare system.

Consultation and communication via video-conference system using computers with web camera.

PHC specialist sends photo/medical data of a disputable case to the BelMAPO consultant by e-mail.

Documentation to assess the quality of tele-consultation specialists fill in the questionnaire

Tele-mentoring between BelMAPO and Ostrovec CRH doctors are carried out on-line, by e-mail; webinars.

Consultation and communication via video-conference system using computers with web camera.

Registration, filling in the questionnaire, testing the level of knowledge.

Besides, the participants of webinars which are carried out in the framework of the approved by the Ministry of Health conferences are given certificates with the participation hours which are needed for further qualification verification.

#### 8.1.8. Planned activities

- equipment purchasing
- continue cooperation with politicians and stakeholders
- 4 webinars based on the scientific and practical conferences, tele-consultations and tele-mentoring.
- continuation of patients electronic data-base development.

#### 8.1.9. Experience exchange

Participation in scientific and research conferences, where we share the information about the project and pilots.

#### 8.1.10. Pilot organization

Activity	PP 13	PP14
Management	Project manager – rector of the academy, functional manager, project coordinator, financial manager	Project manager, Project coordinator, functional manager, financial manager
Organizational support	Prorector for educational work, functional manager, project coordinator	Project manager, head of the department
Technical support	IT Department	Responsible for IT support
Tele-mentoring / tele-consultations	Heads of the departments, academic teaching staff: GP department, clinical and laboratory diagnostics department Depending on the necessity additional members are available	8 GPs, 70 Ostrovec CRH doctors

Table 6: Pilot organization in pilot 1

WP	Planned activity
WP5	48 tele-sessions 4 web-seminars in the framework of 4 scientific and practical conferences

Table 7: Pilots plan in pilot 1

Financial analyses has not been planned.

### 8.1.11. Questionnaire results (preliminary)

22 specialists took part in the questionnaire. There were 6 GPs (27,3%) and 12 (72,7%) doctors of Ostrovec CRH, including 9 male (40,9%) and 13 (59,1%) female. The density of people of 31-40 years of age – 22,7% (5 of 22), 41-50 – 36,4% (8 of 22), 51 and older – 31,8% (7 of 22)

<b>Experience:</b>							<b>n=22</b>	
Less than a year from diploma							-	
3-years from diploma							2 (9.1%)	
6-years from diploma							-	
10-years and more experience							20 (90.9%)	
<b>Tele-mentoring tech usage</b>							<b>Yes</b>	<b>No</b>
Experience in Instant Messaging?							10 (45.5%)	12 (54.5%)
Experience in discussion Boards?							7(31.8%)	15 (68.2%)
Experience in Webinars/ conferences?							4(18.2%)	18 (81.8%)
Experience in Moodle seminars?							3(13.6%)	19 (86.4)
<b>Technical situation</b>							<b>Yes</b>	<b>No</b>
Do you have access to the Internet?							14 (63.6%)	8 (36.4%)
Do you have a computer (личный)?							17(77.3%)	5 (22.7%)
Do you have a computer (на рабочем месте)?							10(45.5%)	12 (54.5%)
<b>In this section, please rate the following questions</b>		<b>Never</b>	<b>once a month</b>	<b>2-3 times a month</b>	<b>once a week</b>	<b>everyday</b>	<b>Yes</b>	
How often do you have the possibility to be mentored by an experienced colleague? (n=22)		4	2	1		10	5 (if needed)	
How often do you have the possibility to be mentored by an experienced colleague? Using IT (n=22)		14				3	6	
How often do you have the possibility to participate in educational lectures, classes (or such)? (n=22)		15	-	1	1	2	3	

Table 8: Questionnaire preliminary results pilot 1

### 8.1.12. What are the obstacles for attending educational lectures, classes (or such)?

The main obstacles for participation in distant learning are the following:

- low technical infrastructure (13 of 22 respondents);
- lacking time due to the intensive work (8 of 22 respondents);
- low quality of telecommunication channels (4 of 22 respondents);
- lacking motivation of distant learning usage (2 of 22 respondents);
- remoteness (1 of 22 respondents);
- narrow specialization (1 of 22 respondents)

<b>In this section, please rate the following statements</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

I feel self-confident when making decisions at work?		3	4	14	1
I have experience and knowhow for solving everyday cases?		1		19	2
I have experience and knowhow for solving rare conditions?		6	8	8	
I am willing to work in remote areas (e.g. in my current workplace)?			3	15	4
I feel professionally isolated?	2	8	6	4	2
I feel tele-mentoring can be used as a tool to support my professional development?			1	10	11
Use of tele-devices (such as iPads, PCs) in mentoring is suitable?			2	11	9
I like to use ICT-technology while communicating with my colleagues?			8	10	4

Table 9: Appendix 2: Pre- and post-test in pilot 1

Rate questions on a scale of 1 to 5.	First session					Last session				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The topic was interesting to me			3	19					20	2
The general goals of the session were fulfilled			3	19					20	2
I was able to achieve my own goals for this session			4	18				2	18	2
Overall I am satisfied with the functionality of used technology in this session		2	20						20	2
Overall I am satisfied with the functionality of used equipment in this session		2	20						20	2

Table 10. Appendix 3: Pilot session review pilot 1

## 8.2. Pilot # 2. ESFD; Estonia

### 8.2.1. Aim of the pilot

The tele-mentoring pilot is carried out by the Estonian Society of Family Doctors (ESFD). University of Tartu, Faculty of Medicine, Chair of Polyclinic and Family Medicine is supporting through guided

## Output nr 5.3

### Mid-term evaluation report in tele-mentoring implementation including necessary adjustments



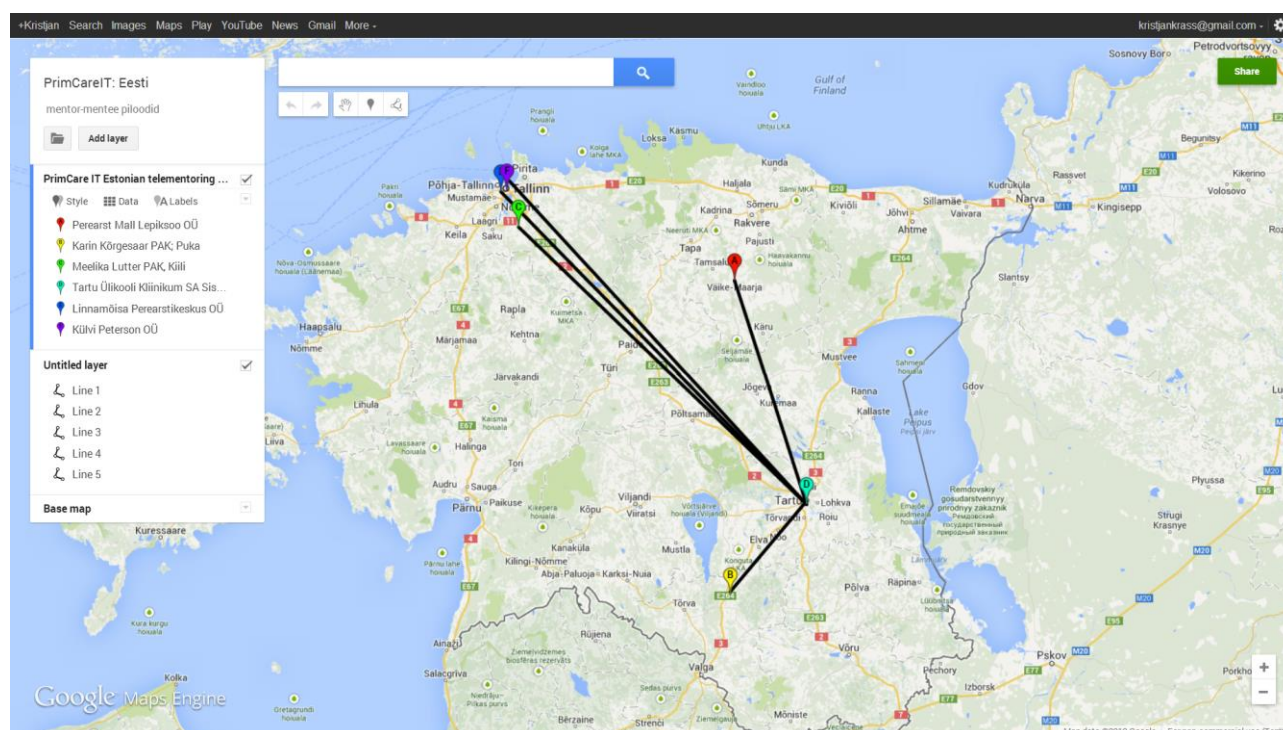
teaching and Technical University of Tallinn through knowhow in e-Health.

The participants in the pilot are four experienced mentors who have supervised many young colleagues during their residency. The four mentees are novice in the profession and have a few years' experience in working in a rural area. The mentors and mentees participating in the pilot have no previous experience in tele-mentoring. Pilot is running in eight family medicine centres that are at least more than 40 km away from the University of Tartu that is the main centre of medical education in Estonia.

By implementing tele-mentoring pilots in the regions, we aim to support professional development of the mentees and to counteract professional isolation by creating a functional network of contacts between the participating health care professionals.

ESFD believes that the tele-mentoring in the pilot sites will bring notable benefits to the mentors and mentees through improved knowledge sharing. Also distances between the participating health care centres which are located in rural areas and the University of Tartu range from 40 km or more. This means that in traditional mentoring a large part of the daily work hours will be spent travelling. With tele-mentoring, it is possible to have connection with all units in the same day as tele-mentoring can be done in the office or in a conference room via PC or videoconferencing equipment and the resources spent to the travelling could be saved.

[https://mapsengine.google.com/map/edit?gmp=m&mid=zddWh\\_uLbLDk.ke-xt2SuYd4](https://mapsengine.google.com/map/edit?gmp=m&mid=zddWh_uLbLDk.ke-xt2SuYd4)



### 8.2.2. Goals

The pilot aims to implement:

- tele-mentoring as with the invention of the internet, supporting continuing medical education (CME) and cost evaluation in remote areas in primary care sector.



- Counteract professional isolation through tele-mentoring.

The key points when creating a new environment are easy access, user friendliness and handiness. All sorts of different functions should be in one place together so that later physicians would start to use it daily. Our environment wants to meet all these needs. It is characteristic to eLearning that in addition to the support of colleagues for a lifelong learning one has also the support of a social network and we are hoping that this is something that will help to decrease brain drain and professional isolation.

### 8.2.3. Timeline and status

- Dec. 2012: Kick-off meeting; Start pilot testing;
- Jan.-Feb. 2013: -Pre-test questionnaire; start-up of the pilot;
- Feb. until Oct. 2013: Tele-mentoring, 26 sessions;
- Sept.-Oct. 2013: Post-test questionnaire; end of piloting + evaluation questionnaire;
- Nov. 2013: Evaluation of the results.

The kick-off meeting was in December 2012, where tele-mentoring tools were introduced to the participants. In the pilot the used tools are Skype (whiteboard, desktop sharing) and eLearning environment Svoog<sup>2</sup> (mail, forum, event calendar, video-presentations, chat) and Moodle for courses (mail, forum and Personal Development Planning calendar).

In the new eLearning environment many different ways of communication are tested. First the communication between colleagues in the family doctors' email list (discussing different cases, interesting findings, analysing these, changing experience, asking questions from colleagues etc.). New web based environment enables one on one communication (chat) as well as communication in a community (mentors and mentees).

Secondly we have created forum for discussing different clinical subjects and also operational subjects. We are glad to witness that mentors and mentees in our pilot are using forum successfully and quite many topics have already been discussed for example does elevated high cholesterol (HDL) need treatment. We have asked the people involved to fill in a questionnaire about every topic that is discussed, to find out how the info was exchanged and if the participants were satisfied with the result and with the means of communication.

Third test is linked to eLearning environment that has been built on the bases of Moodle<sup>3</sup> courses. Nowadays many universities are using Moodle as an eLearning platform. The first course that was created in Moodle is called Professional Development Planning. This course is meant for identifying the personal learning needs by pinpointing the events in practice that need reflection or activity and making a personal learning agenda. In our pilot the participants have to create a consultation diary using PUN & DEN / PAM method. This course was created with the help of University of Tartu, Faculty of Medicine, Chair of Polyclinic and Family Medicine. The course started at the beginning of May.

In addition to the opportunities already named, there is also a calendar that contains information

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<sup>2</sup> <http://www.svoog.com/>

<sup>3</sup> <https://moodle.org/>

about conferences and different trainings and there are links to useful sites, presentations' slides and video presentations.

Technical status, what technology did you purchase or do you plan to purchase and were are you on implementing these.

The software is installed on the Cloud Server. Technical functionalities in the pilot are implemented through Joomla CMS<sup>4</sup>, Moodle LMS, SKYPE<sup>5</sup> and SVOOG.

Mentors and mentees are provided laptops with preinstalled Windows 7<sup>6</sup> and Office 2010<sup>7</sup> software and Skype for everyday use. With laptop participants entered to the web accessing to e-learning environment webpage: <https://www.perearstiselts.ee>

In the pilot the used tools are Skype (whiteboard, desktop sharing) and Joomla CMS, eLearning environment Svoog (mail, forum, event calendar, video-presentations, chat) and Moodle for courses (mail, forum and Personal Development Planning calendar). All individuals were well equipped with the necessary tele-mentoring technology.

#### 8.2.4. Technical aspect

##### **Joomla CMS Forum: February to April 2013**

15 different topics were started in the cardiology, children medicine and in general medical management. Topics were discussed 29 times in the group mentoring methodology by mentors and mentees.

##### **E-Learning environment Svoog: February to June 2013**

41 different video presentations were added to e-learning environment. Video presentations are added form various areas:

1. Cycle Disorders; dr. Külli Erlang ITK; 2013-03-03
2. Tough infectious tuberculosis (TB); Piret Viiklepp, Tuberculosis Registry Head; 2013-03-03
3. Excessive alcohol consuming patient counselling; prof. Ruth Kalda, Tartu University Family Medicine; 2013-19-03
4. Children and Adolescent Gynecology; dr Ele Tammemäe; ITK gynaecologist; 2013-21-03
5. The hand, wrist and troubles a family physician at the reception; dr Kristo Kask orthopaedist; 2013-27-03
6. Acromioclavicular joint injuries: how to treat; dr. Leho Rips; orthopaedist, 2013-15-04
7. Biceps tendon disease, dr Armin Heiman; orthopaedist, 2013-15-04
8. Shoulder pain patient investigation practical side, dr. Armin Heiman, 2013-15-04
9. Contractures of the shoulder. How to cure? Dr. Leho Rips; orthopaedist, 2013-15-04

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<sup>4</sup> <http://www.joomla.org/>

<sup>5</sup> <http://www.skype.com>

<sup>6</sup> <http://windows.microsoft.com/en-us/windows7/products/home>

<sup>7</sup> <http://office.microsoft.com/en-001/support/getting-started-with-microsoft-office-2010-FX100996114.aspx>

10. Glenoid ligament injuries: diagnosis and treatment strategies; dr Armin Heiman, orthopaedist, 2013-15-04
11. Functional anatomy of the shoulder joint. Dr. Madis Rahu, orthopaedist, 2013-15-04
12. ALCOHOL DEPENDENCE AND NATURE Psychotherapy; dr. Katri-Evelin Kalaus, clinical psychologist, psychotherapist; 2013-15-04
13. Juvenile idiopathic arthritis - Children's Rheumatology family doctor; Dr. Chris Pruunsild, Children's rheumatologist, 2013-02-05
14. Chemotherapy patient to family physician, dr. Kadri Putnik; Oncologist, 2013-02-05
15. Reconstructing the breast surgery; dr. Merje Jürisson, General Surgery, 2013-02-05
16. Shoulder joint research and rehabilitation; dr. Varje-Riin Tuulik, Rehabilitation physician, 2013-02-05
17. Joint pain rehabilitation physician's point of view, Eve Sooba, ITK rehabilitation physician, 2013-09-05
18. Eye Diseases and headaches, dr. Melissa Palumaa, Eye doctor, 2013-09-05
19. Neurological Problems Headaches, dr. Toomas Toomsoo, Neuroloogiakeskus, 2013-09-05
20. Headache as seen by an internal physician; dr. Tiia Jasjukevits, Internal doctor, 2013-09-05
21. Patient with headache in family doctor reception, dr. Vanda Kristjan, 2013-09-05
22. Headaches in the eyes of ear, nose and throat doctor, DR.BIRGIT VOLMER; 2013-09-05
23. Pain of the patient, dr. Külvi Peterson, Family doctor, 2013-09-05
24. Occasional findings in thrombosis found, dr. Alice Lill, College of Internal Medicine, 2013-15-05
25. Voice Interference caused by diseases, dr. Kristel Kalling; LOR, 2013-16-05
26. Surgical treatment of patients with laryngeal voice irritant contact dermatitis; dr. Veronika Raudsalu, speech therapist, 2013-16-05
27. FUNCTIONAL VOICE DISORDERS, dr. Pärtel, Speech therapist, 2013-16-05
28. Modern throat surgery, dr. Lauri Maisvee LOR, 2013-16-05
29. Behavioral disorders in childhood and adolescence, Irja Ivarinen psychiatrist, 2013-16-05
30. "Practical issues of deep vein thrombosis patients" - 2013-21-05
31. Alcohol and the Brain: How addictive is going to be and how? prof. Jaanus Harro University of Tartu, 2013-21-05
32. Secondary Stroke Prevention in AF Patients, Dr. Hans-Christoph Diener; Department of Neurology and Stroke Center University Hospital Essen, Germany, 2013-21-05
33. Infant physiotherapy / Preventive Treatment; dr. Melissa Stelmach; 2013-21-05
34. Small child and disturbing behaviour, dr. Marileen Olenko; Clinical child psychologist, 2013-27-05
35. Anticoagulant neurologist perspective, dr. Andrus Kreis, Neurologist, 2013-13-06
36. New anticoagulants in everyday practice. Advantages and disadvantages. Dr. Kai Sukles, Internal Medicine, 2013-13-06
37. ACCP IX. What is new and raises questions; dr. Melissa Jasjukevits; 2013-13-06
38. Triple Therapy; Dr. Kaljusaar, 2013-13-06
39. Contraception and thrombosis, dr. Katrin Nõukas, 2013-13-06
40. Medications and thrombosis; dr. Ene Mäeots, 2013-13-06



41. Pulmonary specialists and family physicians Cooperation; dr. Pille Mukk; 2013-14-06

**Moodle LMS: There were four course sessions of e-course “Life-long professional development” during April and June 2013**

- First session information about the introduction to the topic
- Second session about the introduction PUN / DEN / PAM method
- Third session about the introduction of the learning process
- Forth session about the summary of the learning process

### 8.2.5. Obstacles

The issues:

- For Forum (group mentoring):
  - the time cap is important: answers should come more quickly.
- For SVOOG (group mentoring):
  - the contexts is important
  - Video and audio quality should be at high standard –
  - tolerance with equipment’s problems can be quite low and feedback critical
- For Moodle (individual mentoring):
  - the contexts is important - if not interesting, then motivation decreases quickly
  - the design and functionality is important as the e-learning felt quite complicated for users.

### 8.2.6. Factors of success

The pilot members agreed that tele-mentoring is innovative way of learning and sharing the knowledge and new networking opportunities and professional support.

Tele-consultation and tele-mentoring can be done in the office or in a conference room via PC. This enables for the mentors and mentees to spend less time on travelling. In addition, it is easy to implement, and money will be saved on travelling cost.

The mentors and mentees are new to tele-mentoring tools and the concepts that lead to the basic education of tools and terminology of concepts.

### 8.2.7. Documented of consultations/mentoring sessions

The documentation and used questionnaires have been described before.

There were FORUM and four MOODLE sessions and SVOOG videoconferences during February and June 2013.

In the first session, information about the pilot procedures was given. The demographic audience profile and also pre-test were done and later also a post-test was held. Each pilot session has been also evaluated. The conclusions will be done in final report.

### 8.2.8. Measures for sustainability

It's planned that this created network of mentors and mentees in the pilot will remain functional after

the pilot project is over.

### 8.2.9. Transfer experiences into the organisations involved

Experiences are transferred by reporting and through common conference that are held twice a year. Tele-mentoring will be part of learning routine.

### 8.2.10. Describe the organisation of your pilot - staff, management etc.

The tele-mentoring pilot is carried out by the Estonian Society of Family Doctors (ESFD). University of Tartu, Faculty of Medicine, Chair of Polyclinic and Family Medicine is supporting through guided teaching and Technical University of Tallinn through knowhow in e-Health.

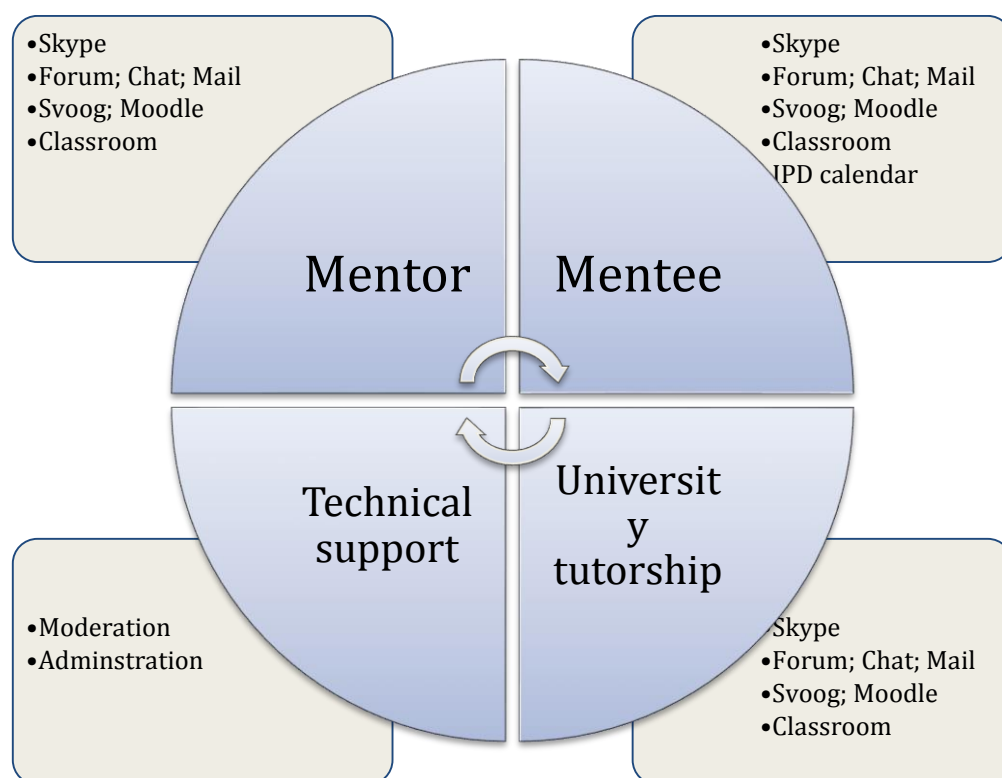


Figure 1: Organisation of pilot 2

## 8.2.11. Pilot project plan

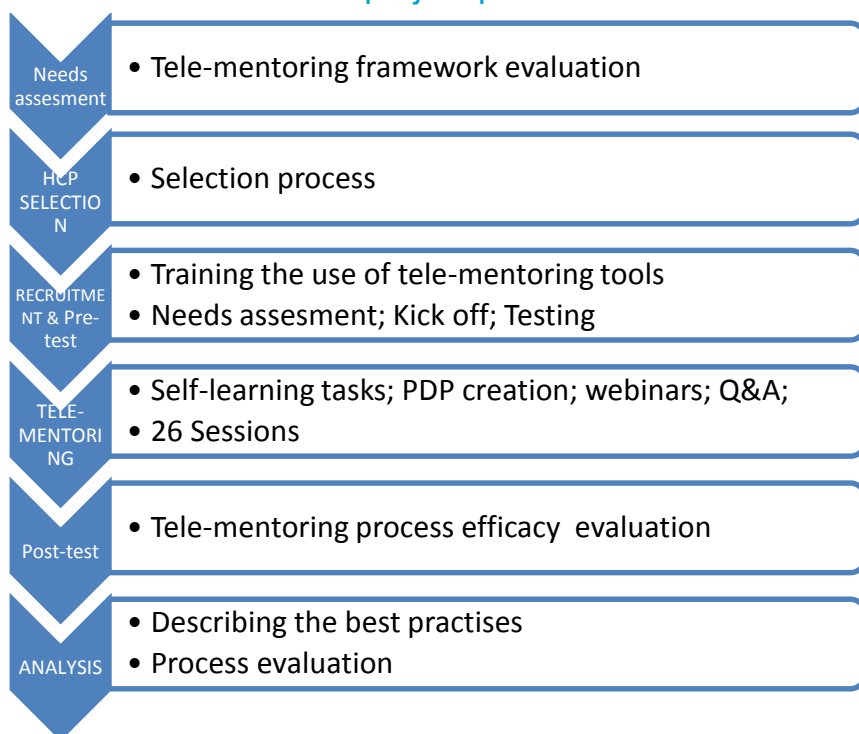


Figure 2: Pilot project plan pilot 2

## 8.2.12. Financial evaluation/ cost benefit analysis

Compare the situation, in which the mentor-mentee would be travelling. Analyse will be done in the second part of 2013.

[https://mapsengine.google.com/map/edit?gmp=msp&mid=zddWh\\_uLbLDk.ke-xt2SuIYd4](https://mapsengine.google.com/map/edit?gmp=msp&mid=zddWh_uLbLDk.ke-xt2SuIYd4)

## 8.2.13. Survey used in pilot

Mentor or mentee?	<input type="checkbox"/> Mentor <input type="checkbox"/> Mentee
Profession?	
Location:	
Gender:	<input type="checkbox"/> Male <input type="checkbox"/> Female
Age:	<input type="checkbox"/> < 25 <input type="checkbox"/> 25—30 <input type="checkbox"/> 31—40 <input type="checkbox"/> 41—50 <input type="checkbox"/> > 50
Nationality:	

## Output nr 5.3

Mid-term evaluation report in tele-mentoring implementation including necessary adjustments



Experience:	<input type="checkbox"/> Less than a year from diploma <input type="checkbox"/> 3-years from diploma <input type="checkbox"/> 6-years from diploma <input type="checkbox"/> 10-years and more experience
Employment history:	
Computer usage history:	
Tele-mentoring tech usage	
Experience in Instant Messaging?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Experience in Discussion Boards?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Experience in Webinars/ conferences?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Experience in Moodle seminars?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Technical situation	
Do you have access to the Internet?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you have a computer?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Table 11: Pilot audience profile pilot 2

# Output nr 5.3

Mid-term evaluation report in tele-mentoring  
implementation including necessary  
adjustments



Name: _____					
Department: _____					
Position: _____					
<b>In this section, please rate the following statements</b>					
	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
I feel self-confident when making decisions at work?	1	2	3	4	5
I have experience and knowhow for solving everyday cases?	1	2	3	4	5
I have experience and knowhow for solving rare conditions?	1	2	3	4	5
I am willing to work in remote areas (e.g. in my current workplace)?	1	2	3	4	5
I feel professionally isolated?	1	2	3	4	5
I feel tele-mentoring can be used as a tool to support my professional development?	1	2	3	4	5
Use of tele-devices/ ICT-technology (such as iPads, PCs) in mentoring is suitable?	1	2	3	4	5
I like to use ICT-technology/tele-devices while communicating with my colleagues?	1	2	3	4	5

Table 12: Survey: pre- and post-test pilot 2

Date: _____					
Pilot Session no: _____					
Name: _____					
Department: _____					
Position: _____					
Mentor or mentee?	Mentor	Mentee			
Tele-mentoring	Yes	No			
Tele-consultation	Yes	No			
<b>Rate questions on a scale of 1 to 5.</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
The topic was interesting to me.	1	2	3	4	5
The general goals of the session were fulfilled.	1	2	3	4	5

I was able to achieve my own goals for this session.	1	2	3	4	5
Overall I am satisfied with the functionality of used technology in this session.	1	2	3	4	5
Overall I am satisfied with the functionality of used equipment in this session.	1	2	3	4	5

Table 13: Pilot session review pilot 2

### 8.3. Pilot # 3. KPHCD; Finland

#### 8.3.1. Timeline and status of the pilot

Mentoring-pilot including 5 sessions between Seinäjoki Hospital and Kauhava HC is completed. Participants were 8-10 per session.

Report is ready and presented under SEAMK.

Main finding was saving due to the travelling time, which amounted more than one week per tele-mentoring session. Modus of mentoring is well accepted.

Other mentoring pilots inside Kauhava HCD were done on dates 23.5, 24.5, 31.5, 3.6, 20.6, 27.6

Aim/indicator was to have 5 different single pilot-sessions with 5 different mentors and one pilot including 5 sessions with the same mentor. Mentees were doctors, nurses and other professionals each in their own groups.

Evaluation is done, report is partly done. Total number of participants in single sessions was 41 and in the pilot with 5 sessions 10-12 each. Pilot was completed in July.

Acceptance was good. Some difficulties were found in the beginning in practical matters. Main savings were due to the travelling time ca. one day per session.

Mentoring shall continue as a regular activity.

During the 1-6/2013 period mentoring of two doctors under training has been going on weekly as a "round table discussion". Equipment was functional during the later part of the period.

### 8.4. Pilot # 4. KPHCD, SOHCD, SEAMK; Finland

#### 8.4.1. Aim of the pilot

The joint pilot of three Finnish PrimCareIT project partners, Kauhava Primary Health Care District (KPHCD), Seinäjoki University of Applied Sciences (Seamk) and South Ostrobothnia Health Care District (SOHCD) implements tele-mentoring to support communication, mentoring and continuing education of hygiene nurses in South Ostrobothnia region.

The pilot aims at bringing notable benefits to the participating organisations. As distances between the participating health care units or centres and the central hospital of Seinäjoki range from 55 - 75 km, in traditional mentoring a large part of the daily work hours is spent by travelling between the units. With tele-consultation and tele-mentoring, it is possible to have connection with all units in the same day, as tele-consultation and tele-mentoring can be done in the office or in a conference room via PC or videoconferencing equipment. This enables a new kind of work routine to the mentors who currently spend a lot of time travelling. In addition, it is easy to implement, and money will be saved.

#### 8.4.2. The roles of the three involved organisations are following:

South Ostrobothnia Health Care District provides technical support for the pilot, and the mentor nurse from the Seinäjoki Central Hospital.

Kauhava Primary Health Care District provides the mentees from its primary health care centres.

Seinäjoki University of Applied Sciences as an educational institution provides expert support to tele-mentoring and takes care of the evaluation process of the pilot.

The pilot participants are one mentor nurse (who is the regional hygiene nurse and works in the hygiene unit of Seinäjoki Central Hospital) and approximately 10 mentee nurses (who are regular nurses working in primary health centres, and are responsible for hygiene issues at their units).

Before the implementation of the tele-mentoring pilot, the mentoring and continuing education of hygiene nurses was organised by regular visits of the regional hygiene nurse from Seinäjoki Central Hospital to the regional primary health care centres. This process was working, but was seen as time consuming due to the long distances between health care units. Therefore, the main aim of the pilot is to test and implement tele-mentoring as a permanent solution between the participating units. If proven successful, tele-mentoring will continue as a permanent function and possibly be widened to other units as well.

#### 8.4.3. Goals

By implementing two tele-mentoring pilots in the South Ostrobothnia region, we aim to support professional development of the mentees and to counteract professional isolation by creating a functional network of contact persons between the participating health care units.

Also cost and time saving of the tele-mentoring implemented in the pilot can be estimated.

#### 8.4.4. Timeline and status of the pilot

The pilot process was planned during the autumn 2012 and January 2013 by the work group consisting of participants from all three involved organisations. As described in the previous outputs, piloting was planned to take place mainly via videoconferencing between South Ostrobothnia Health Care District (namely: Seinäjoki Central Hospital) and Kauhava Primary Health Care District. Seinäjoki University of Applied Sciences was to provide expert support to the tele-mentoring.

Initial pilot test session was held on December 2012. Connection between Seinäjoki Central Hospital and Kauhava Primary Health Care Centre was tested with older equipment. Regional hygiene nurse, i.e. the mentor nurse in the pilot, was present in the meeting and was instructed on the technical aspects of tele-mentoring. During autumn 2012, also Moodle environment for the pilot group was created.

Once the actual pilot equipment was obtained at South Ostrobothnia Health Care District in the beginning of January 2013, it was decided that the pilot would be started. Kauhava Primary Health Care District was able to use older similar equipment in the beginning of the piloting, until the actual pilot equipment was received. Partially due to the equipment issues, it was decided to restrict the piloting at first phase to Kauhava primary health care centre, and not yet to the more distant health centres.

The pilot kick off meeting was held in February 2013. All pilot participants were instructed on the

PrimCareIT project, piloting, tele-mentoring and evaluation processes. Pre-questionnaire was carried out, and videoconferencing between the units was presented. Feelings among the participants toward the tele-mentoring were largely positive. Further pilot sessions were decided to be held on a monthly basis between the mentor nurse and several mentees simultaneously. Last pilot session was held in May 2013.

#### 8.4.5. Technical aspect

Tele-mentoring was initiated as a need-based process to see if it could provide a suitable tool for the nurses to ease their communication and meetings by saving travel time but still allowing regular “face-to-face” meetings. Videoconferencing was considered as the most suitable tool and was chosen to be the pilot device. With videoconferencing equipment, simultaneous connections can be arranged between two or several locations. They can be used for delivering voice, images and data - for this reason videoconferencing equipment fits well for the purposes of tele-mentoring. Connection is taken via data network. Technology is based on standards, which means that also different brand equipment works together. For the pilot, well known LifeSize and Polycom videoconferencing equipment are being used.

Set up of the equipment was unproblematic as videoconferencing is a familiar method for the pilot work group members. South Ostrobothnia Health Care District provides technical support for the tele-mentoring pilot sessions. In order to guarantee the functionality of tele-mentoring sessions, there should always be technical support available at both ends in the beginning and also during the session.

Also iPads are planned to be used in the pilot for tele-mentoring between individual participants. An application called “Helppo Nappi”<sup>8</sup>, provided by the regional tele service provider has been planned to be adapted. However, at the time of the writing, an iPad version of the application hasn’t yet been provided, for which reason it hasn’t been tested so far. In addition to the tele-mentoring devices, a Moodle environment has been created for the pilot group. It’s been used for delivering learning materials and other relevant information between the pilot participants.

#### 8.4.6. Mentoring sessions carried out –evaluation of the Pilot #4 procedures

There were four pilot sessions during February and May 2013. In the first session information about the pilot procedures was given. The demographic audience profile and pre-test were done and during the last pilot session, also post-test was carried out. Each pilot session has been evaluated.

The following table describes participants audience profile (Demographics N =14):

Individual				
Mentor or Mentee	Mentor	1	Mentee	13
				N=14
Profession	Headnurse			1
	Registered nurse			7
	Public health care nurse			2
	Practical Nurse			5
				N=14

<sup>8</sup> <http://www.helpponappi.fi/>



## Output nr 5.3

Mid-term evaluation report in tele-mentoring  
implementation including necessary  
adjustments



Age:	< 25	0	
	25—30	0	
	31—40	3	
	41—50	4	
	> 50	7	
			N=14
Gender:	Female	13	13
	Male	1	1
			N=14
Nationality:	Finnish	14	
			N=14
Experience:	Less than a year from diploma		
	3-years from diploma	1	
	6-years from diploma	1	
	10-years and more experience	12	
			N=14
Employment history:			
Computer usage history: see the description on text			
Tele-mentoring tech usage			
		<b>yes</b>	<b>no</b>
Experience in Instant Messaging?		5	9
		<b>yes</b>	<b>no</b>
Experience in discussion Boards?		4	10
		<b>yes</b>	<b>no</b>
Experience in Webinars/ conferences?		5	9
		<b>yes</b>	<b>no</b>
Experience in Moodle seminars?		4	10
		<b>yes</b>	<b>no</b>
Technical situation			
		<b>yes</b>	<b>no</b>
Do you have access to the Internet?		14	
		<b>yes</b>	<b>no</b>
Do you have a computer?		14	



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and European Neighbourhood and  
Partnership Instrument)

In this section, please rate the following questions	seldom or never	once a month	2-3 times a month	once a week	every day
	1	2	3	4	5
How often do you have the possibility to be mentored by an experienced colleague?				1	13
How often do you have the possibility to participate in educational lectures, classes (or such)?	7	11	1		
What are the obstacles for attending educational lectures, classes (or such)?	a) Distance = 4 answers b) Time constraints in work environment = 8 answers c) Low quality in seminars = 0 answers d) Too specialized = 0 answers e) Too expensive = 0 answers f) Other reason = 5 answers				

Table 14: Audience Profile Pilot 4

### Experiences from carried consultations/mentoring sessions

6.2.2013 / mentees; N = 13 mentees

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
	1	2	3	4	5	N
I feel self-confident when making decisions at work?	1	1		9	2	13
I have experience and knowhow for solving everyday cases?		2	1	10		13
I have experience and knowhow for solving rare conditions?	1	3	5	4		13
I am willing to work in remote areas (e.g. in my current workplace)?	2		3	5	3	13
I feel professionally isolated?	6	5	0	1		12
I feel tele-mentoring can be used as a tool to support my professional development?			1	10	2	13
Use of tele-devices (such as iPads, PCs) in mentoring is suitable?			4	6	3	13

I like to use ICT-technology while communicating with my colleagues?	1	5	6	1	13
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Table 15: Pre-test pilot 4

23.5.2013 / mentees; N=11 mentees

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
<i>In this section, please rate the following statements</i>	1	2	3	4	5	N
<i>I feel self-confident when making decisions at work?</i>	1			7	3	11
<i>I have experience and knowhow for solving everyday cases?</i>				9	2	11
<i>I have experience and knowhow for solving rare conditions?</i>		2	4	5		11
<i>I am willing to work in remote areas (e.g. in my current workplace)?</i>	2		2	5	2	11
<i>I feel professionally isolated?</i>	4	6	1			11
<i>I feel tele-mentoring can be used as a tool to support my professional development?</i>				8	3	11
<i>Use of tele-devices (such as iPads, PCs) in mentoring is suitable?</i>				7	4	11
<i>I like to use ICT-technology while communicating with my colleagues?</i>			3	6	2	11

Table 16: Post-test pilot 4

In addition to the tele-mentoring devices, also a Moodle environment was created for the pilot group. It was used for delivering learning materials and other relevant information between the pilot participants.

The name of the Moodle course was: "Professional skills and hygiene in nursing". The content of Moodle platform and pilot-sessions were:

- Session 1.
  - Kick off meeting of pilot in Kauhava 6.2.2013
  - Common information about PrimCareIT project and piloting
  - Introduction of Moodle platform
  - First questionnaires' of mentees (audience profile, pre-test of mentees and evaluation of pilot-session)
- Session 2.
  - The general precautions of hygiene; by tele-connection 22.3.2013
  - Prevent infections in nursing
  - Instructions of working clothes and hygiene in nursing

- Hand hygiene in nursing
- Disinfection on speck secretion
- EPSHP recommendation of cover clothes
- Personnel's use of covers
- Evaluation of pilot-session
- Session 3.
  - The special precautions of hygiene; by tele-connection 25.4.2013
  - Problems of gamma resistant bacteria (ESBS and MRSA)
- Session 4.
  - The isolation of the patient in hospital; by tele-connections 23.5.2013
  - Air isolation
  - Drop isolation
  - Touch isolation
  - Post-tests of mentees and evaluation of pilots session

#### 8.4.7. Evaluation of pilot-session

The following tables (17-20.) provide information about the progress during the pilot-sessions.

In sessions three (3) and four (4) there were changes with technical equipment, and opinions about the functionality of used equipment were more critical.

Rate questions on a scale of 1 to 5.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	N
	1	2	3	4	5	
The topic was interesting to me		1		9	3	13
The general goals of the session were fulfilled			7	3	3	13
I was able to achieve my own goals for this session			7	4	2	13
Overall I am satisfied with the functionality of used technology in this session				8	5	13
Overall I am satisfied with the functionality of used equipment in this session				8	5	13

Table 17: Pilot #4 session 1. Review 20130206

Rate questions on a scale of 1 to 5.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	N
	1	2	3	4	5	
The topic was interesting to me		1		4	7	12
The general goals of the session were fulfilled			1	4	7	12
I was able to achieve my own goals for this session				4	7	12
Overall I am satisfied with the functionality of used technology in this session				3	9	12
Overall I am satisfied with the functionality of used equipment in this session				3	9	12

Table 18: Pilot #4 session 2. Review 20130322

Rate questions on a scale of 1 to 5.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	N
	1	2	3	4	5	
The topic was interesting to me				7	3	10
The general goals of the session were fulfilled				6	4	10
I was able to achieve my own goals for this session			1	5	4	10
Overall I am satisfied with the functionality of used technology in this session	2	2	1	5		10

Overall I am satisfied with the functionality of used equipment in this session	2	3	2	3		10
---	---	---	---	---	--	----

Table 19: Pilot #4 session 3. Review 20130425

Rate questions on a scale of 1 to 5.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	N
	1	2	3	4	5	
The topic was interesting to me				6	5	11
The general goals of the session were fulfilled				6	5	11
I was able to achieve my own goals for this session				7	4	11
Overall I am satisfied with the functionality of used technology in this session		1		7	3	11
Overall I am satisfied with the functionality of used equipment in this session		2	1	5	3	11

Table 20: Pilot #4 session 4. Review 20130225

#### 8.4.8. Factors of success

After piloting sessions there was a common agreement about the result, that this kind of way of working provides new opportunities and professional support. Except that there was a supporting relationship between the mentor and the mentees, the mentees built up a network between themselves. So everybody is also learning from each other.

We noticed that the tolerance with tele-equipment can be quite low, so if there are any technical problems, the feedback is more critical.

One piloting goal was the belief that the tele-mentoring in the Finnish pilot site will bring notable benefits to the participating organisations. With tele-consultation and tele-mentoring, it was possible to have mentoring session with all units in the same day, unlike traditionally, when a lot of travelling was required. This enabled a new work routine to the mentors who currently spend a lot of time travelling between the units. In addition, tele-mentoring was easy to implement, and financial saving could be counted.

Compared to a situation, in which the mentor would be travelling, the save of the cost of the four pilot-sessions were:

- save of time of travelling: 8 hours x salary 35,00 € / hour = 280,00 €

- save of costs of travelling: 110 kilometres x 4 pilot sessions x 0,45 € = 198,00 €

Compared to a situation, in which the mentees (about 11 persons) would be travelling, the save of the cost of the four pilot-session were:

- save of time of travelling: 11x 8 hours x 35,00 € / hour = 3080,00 €
- save of costs of travelling: 110 kilometres x 4 pilot sessions x 4 cars x 0,45 € = 1760,00 €

So it is economically also justified to develop this way of working.

#### 8.4.9. Documentation of the mentoring sessions

The documentation and used questionnaires have been described before.

There were four pilot sessions during February and May 2013. In the first session, the demographic audience profile and also pre-test were done, and later also a post-test was held. Each pilot session has been also evaluated. The conclusions will be done in final report.

#### 8.4.10. Measures for sustainability

It's planned that this network created in the pilot will remain functional after the pilot project is over. If proven successful, tele-mentoring can continue as a permanent function between units and possibly be widened to other units as well.

Also iPads are planned to be used in the pilot for tele-mentoring between individual participants. An application called "Helppo Nappi", provided by the regional tele service provider has been planned to be adapted.

#### 8.4.11. Transferring experiences into the organisations involved

Experiences are transferred by reporting and through common meetings. Tele-mentoring will be part of daily working more widely.

#### 8.4.12. Describe the organisation of your pilot - staff, management etc.

As mentioned before, the joint pilot of three Finnish PrimCareIT project partners, Kauhava Primary Health Care District (KPHCD), Seinäjoki University of Applied Sciences (Seamk) and South Ostrobothnia Health Care District (SOHCD) implements tele-mentoring to support communication, mentoring and continuing education of hygiene nurses in South Ostrobothnia region. The roles of the three involved organisations are following:

- South Ostrobothnia Health Care District (SOHCD) provides technical support for the pilot, and the mentor nurse from the Seinäjoki Central Hospital
- Kauhava Primary Health Care District (KPHCD) provides the mentees from its primary health care units / centres
- Seinäjoki University of Applied Sciences (SUAS) as an educational institution provides expert support to tele-mentoring and takes care of the evaluation process of the pilot

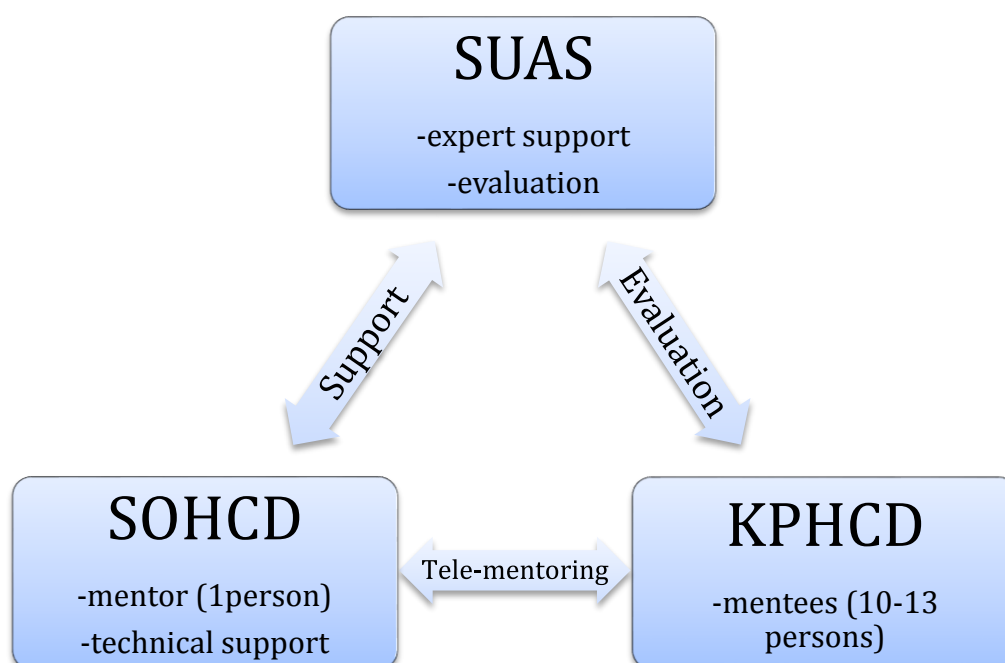


Figure 3: Organisation of pilot 4

## 8.5. Pilot # 5. VUHSK, LUHS; Lithuania

### 8.5.1. Aim of the pilot

The general objective of WP5 Pilot #5 is to create a web-based platform / learning environment where up-to-date content for continuous medical education is available and carry out tele-mentoring sessions, specifically prepared for primary doctors.

Experienced health care professionals and specialist doctors working at Vilnius University Hospital Santariškių Klinikos (VUHSK) (Mentor center) and younger and presumably less experienced family doctors (mentees) are enrolled in the study:

- the lectures in the form of video presentation and the interactive asynchronous question-answer sessions (forums) are prepared by a team of experienced doctors who are both practicing medical professionals and/or lecturers of The Medical Faculty of Vilnius University: 7 family physicians and 11 specialized medical professionals (cardiologists, gastroenterologists, pulmonologists, psychiatrists, dermatovenereologists);
- all mentees work in geographically remote primary healthcare centers (PHC): Anykščiai PHC (120 km from Vilnius), Druskininkai PHC (120 km from Vilnius) and Neringa PHC (350 km from Vilnius).

Due to the fact that tele-mentoring and tele-consultation often part of each-other and come together, the close cooperation with WP4 tele-consultation Pilot #5 is foreseen. The aim of such type of cooperation is to explore and choose the best available tele-mentoring and tele-consulting options



in terms of software, hardware and human resource.

### 8.5.2. Goals

The newly developed web-based learning platform will serve as a tool of continuous medical education for general practitioners working in remotely located PHC, thus diminishing their possible professional isolation.

The prospective quantitative study, which will be carried out during the pilot period will allow us to measure:

- acceptance of distance education solutions (Moodle-environment-based distant education program for general practitioners together with web-based tele-mentoring by experienced professionals),
- level of self-efficacy and self-confidence using tele-mentoring to achieve self-learning tasks,
- needs formulated by young and presumably less experienced medical professionals working in remote/rural areas.
- Cost and time saving which mentee gained while taking part in tele-mentoring could also be estimated.

### 8.5.3. Timeline and status of the pilot

The pilot implementation phase has started with some delay due to misleading initial understanding that two VUHSK pilots, both tele-mentoring (WP5) and tele-consultation (WP4) are to run simultaneously. The uncertainty of the role and expectations of Lithuanian University of Health Sciences (LUHS) in WP5 Pilot #5 implementation also influenced rather late initiation of activities.

During February – March 2013 – the detailed pilot concept was re-discussed and further elaborated during the PSC and WP meeting in Minsk, as well as by e-mail communication after LUHS expressed their refusal to take part in WP5 Pilot #5. The questionnaires formulated in WP5 O5.2 output were translated into Lithuanian, transferred to digital version and made available online for pilot study participants. The cooperation with Electronic Learning and Examination Centre of Vilnius University was established.

On the 22nd of March the specifically designed Moodle based platform was created and the first compiled video lecture was uploaded to virtual learning environment.

During April-May video lectures in the specified format were being filmed and compiled.

Until the 30th of May all currently filmed and compiled video lectures were uploaded to Moodle platform. The list of mentees working in three remotely located PHC was collected. All mentees were enrolled.

On the 1st of June the 6-month-follow-up study has started, which is to be running until the 30th of November.

Until the 20th of December the data analysis is to be finished and made ready for the final project report.

Having in mind rather late initiation of the pilot, appropriate human resource allocation and additional employment of 18 external medical professionals as scientific lectors was carried out. This allowed us to begin currently running prospective pilot study with a 6-month-follow-up period. All mentee centers are informed about the ongoing study and mentees from Anykščiai, Druskininkai and Neringa

PHC are already enrolled (n=26).

#### 8.5.4. Technical aspect

The pilot is being developed and carried out in co-operation between VUHSK and Electronic Learning and Examination Centre of Vilnius University.

Software: Moodle service, a free open-source PHP web application for producing modular internet-based courses that support modern social constructionist pedagogy was chosen for hosting continuous medical education course for family doctors. Virtual learning environment platform was developed by the specialists of Electronic Learning and Examination Centre of Vilnius University (Tele-mentoring technical center). Tele-mentoring technical center also provides all the necessary technical support during the pilot phase.

20 web lectures comprise the tele-mentoring program for family physicians, which is available online at <http://vma.esec.vu.lt/vma/course/category.php?id=65> . 19 of them are already uploaded to specifically created course management system.

After enrolling into the course and taking part in the lecture the mentee is invited to complete an online multiple choice test (10 questions all-in-all) on the specific subject, which is prepared by the author of the lecture. This allows us to evaluate the knowledge of the mentee on particular subject of the lecture as well as grant the mentee for having attended the course with CME credits, provided by Vilnius University.

The Moodle forum section after each lecture allows establishing asynchronous interaction between mentor-mentee in the Moodle environment.

A wider use of Moodle calendar section is also planned, which will allow for course participants to find out more information on forthcoming medical events, seminars and conferences.

The information required for quantitative study implementation will be collected with the help of online questionnaires, which are requested to be filled by study participants before and after the study as well as after the lecture (session evaluation form).

Hardware: until now no particular hardware was obtained for the initiation of the tele-mentoring pilot study since mentee centers have internet access and are equipped with at least basic IT hardware (desktop PC and monitor), which is necessary to take part in the specified tele-mentoring course.

However at a later stage (after the public procurement procedure at VUHSK will be over and diagnostic medical equipment sets and iOS / Win8 based tablet PCs obtained) enrolled mentees will be asked to use the provided portable equipment. Thus, it is expected that cross-platform tele-mentoring sessions will allow us to collect additional feedback about various options of software/hardware integration.

#### 8.5.5. Mentoring sessions carried out

Due to late pilot initiation, the follow-up period has started on the 1st of June.

Until now there are 37 users created all together (mentors and mentees) - 30 of them have completed their user profile, 11 of them have already watched video lectures. However no one has evaluated the tele-mentoring session yet.

#### 8.5.6. Experiences from carried consultations/mentoring sessions

At present moment the follow-up study has just started, therefore the involvement of enrolled

mentees as well as feedback of any sort is very scarce. However the means to get the feedback are well defined (pre and post study evaluation questionnaire, session evaluation questionnaire, knowledge evaluation test, forum sections, etc.).

#### 8.5.7. Level of satisfaction of staff and obstacles

From our perspective, low motivation and lack of IT / eHealth literacy among mentees are considered to be the major setbacks of WP5 Pilot #5.

In order to solve those above-mentioned obstacles we have initiated the recognition process of the course as a medical conference or specific study programme of Vilnius University. Therefore, as a motivation enhancement, it is planned that mentees will get the proper CME certificates after they have completed the tele-mentoring session and passed the knowledge evaluation test of specific subject.

Regular face-to-face meetings in Druskininkai, Neringa and Anykščiai PHC during which enrolled mentees will be encouraged to take active part in the study are also foreseen.

Since during WP5 pilot it is planned to provide every mentee centre with a set of sophisticated diagnostic medical and IT equipment, capable of remote medical data recording and transfer, those meetings are expected to be especially favourable.

#### 8.5.8. Factors of success

Not yet identified and measured due to late initiation of the study.

#### 8.5.9. Documentation of the mentoring sessions

The mentee is to provide feedback after each tele-mentoring lecture by completing online session evaluation form. Questionnaires, which are requested to be filled by study participants before and after the study are also available online. Some added-value comments are also expected from the implemented forum, where participants are able to address issues / ask questions directly. Regular face-to-face meetings will provide such opportunity to collect feedback as well.

The information, collected pre and post study will be used to evaluate the acceptance and benefits of distant education in primary health care, specifically involving the health care specialists working in the rural / remote areas.

#### 8.5.10. Measures for sustainability

The study data analysis is planned after 6-month-follow-up period. Having received positive evaluation of the study process, identified objectively increased level of self-confidence among mentees and included their constructive suggestions / feedback in the process of tele-mentoring we plan to constantly update the course for family doctors and maintain the virtual learning environment with the support of Vilnius University and Ministry of Health. If proven successful, tele-mentoring sessions will be used as additional option of continuous medical education.

#### 8.5.11. How do you transfer experiences from the pilot into the organisations involved?

Experiences from the pilot will be transferred by the means of paper/digital report of the study and information spread during related conferences and various common meetings.

8.5.12. Describe the organisation of your pilot - staff, management etc.



Figure 4: Organisation of pilot 5 v. 1



Figure 5: Organisation of pilot 5 v. 2