



Current Finnish eHealth experiences



Jarmo Reponen, M.D.

- President, Finnish Society of Telemedicine
- Research manager, FinnTelemedicum, University of Oulu, Finland
- Member of the board, International Society for Telemedicine and eHealth

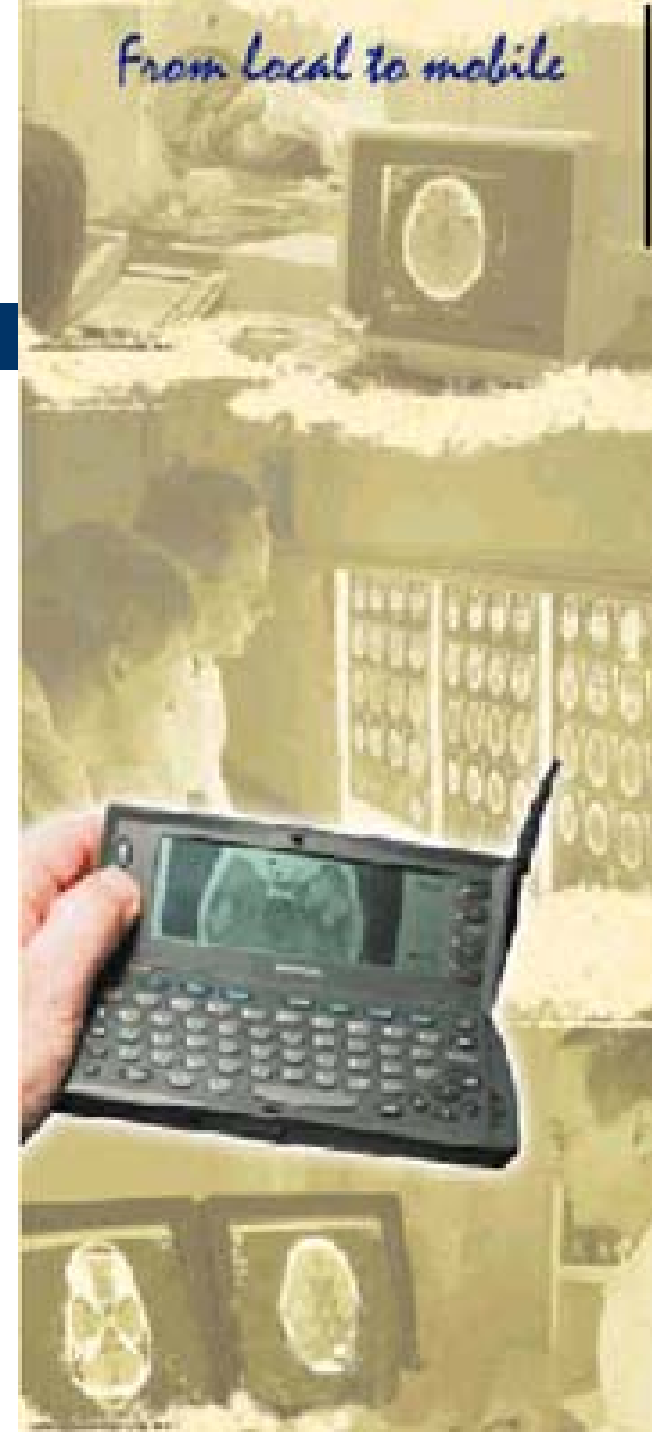
e-mail: jarmo.reponen@oulu.fi

Med-e-Tel 2005
7.4.2005, Luxembourg



Contents:

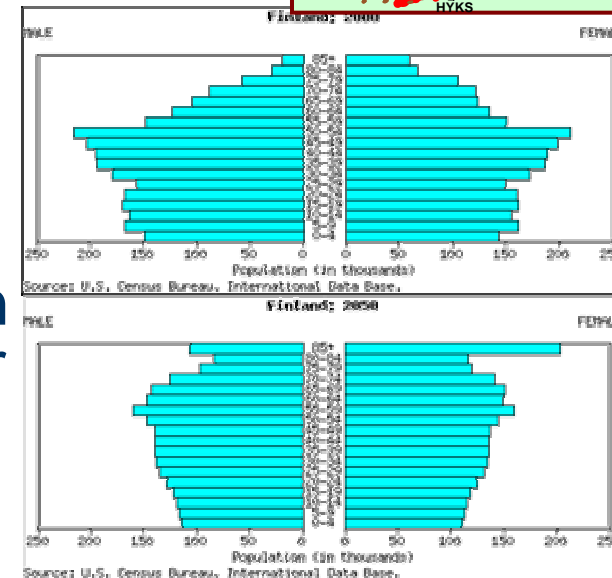
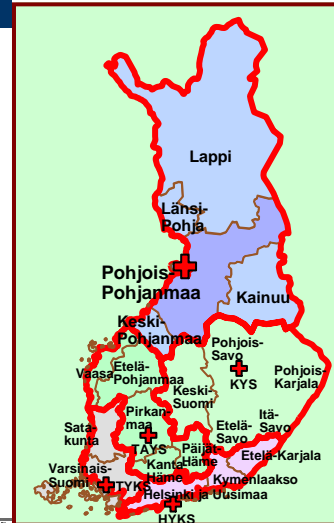
- Finnish HC ICT challenges and strategies
- National EPR project
- Current trends: Regional services, Mobile technology, Patient empowerment
- Finnish Society for Telemedicine – 10th anniversary





Some current problems in Finnish HC

- 5,2 million inhabitants, who have 448 independent municipalities with a responsibility to organise health services.
- 200 primary health care centres and 21 hospital districts with all together 90 hospitals for secondary care.
- The system is too scattered.
- Difficulty in recruiting physicians and other staff to PHCC:s and minor hospitals.
- The cost of care is increasing more than the ability of the municipalities to pay for that.





The National program for Securing the future of Health Care

- Launched by the Finnish Government
- 18 subprojects, one of them concerns the implementation of national interoperable electronic patient records by the year 2007
- Goals of the EPR section:
 - EPR readily available to staff and patients,
 - Professionals able to deliver seamless care,
 - Managers able to improve the planning of services.
- More than 1/3 of the governmental support to HC marked for ICT development.





The Finnish National EPR project

- Common interoperable core data set.
- Interoperable national health record infrastructure. *(Still many vendors)*
- National requirements for secure and confidential communication.
- National PKI-services. *Professional card*
- EPR messaging and archiving based on HL7 CDA and XML.
- National directory services for health care providers. *E.g. ICD-10, OID-codes, e-prescribing*





Current trends: full variety of solutions

- Based on a comprehensive HC ICT survey made by FinnTelemedicum, the Centre of Excellence for Telehealth, the 94 % of the primary healthcare centres and 63 % of the hospitals are already using EPR.
- All the presently known forms of eHealth and telehealth services exist in Finland.



TM applications:

- teleconsultation of images and signals
- videoconferences
- distant education
- patient monitoring
- distribution of electronic patient record documents
- customer services, advisory services
- information services, data mining



Current trends: EPR as a portal to information

EPR portal since 1995 at
Oulu University Hospital, Finland

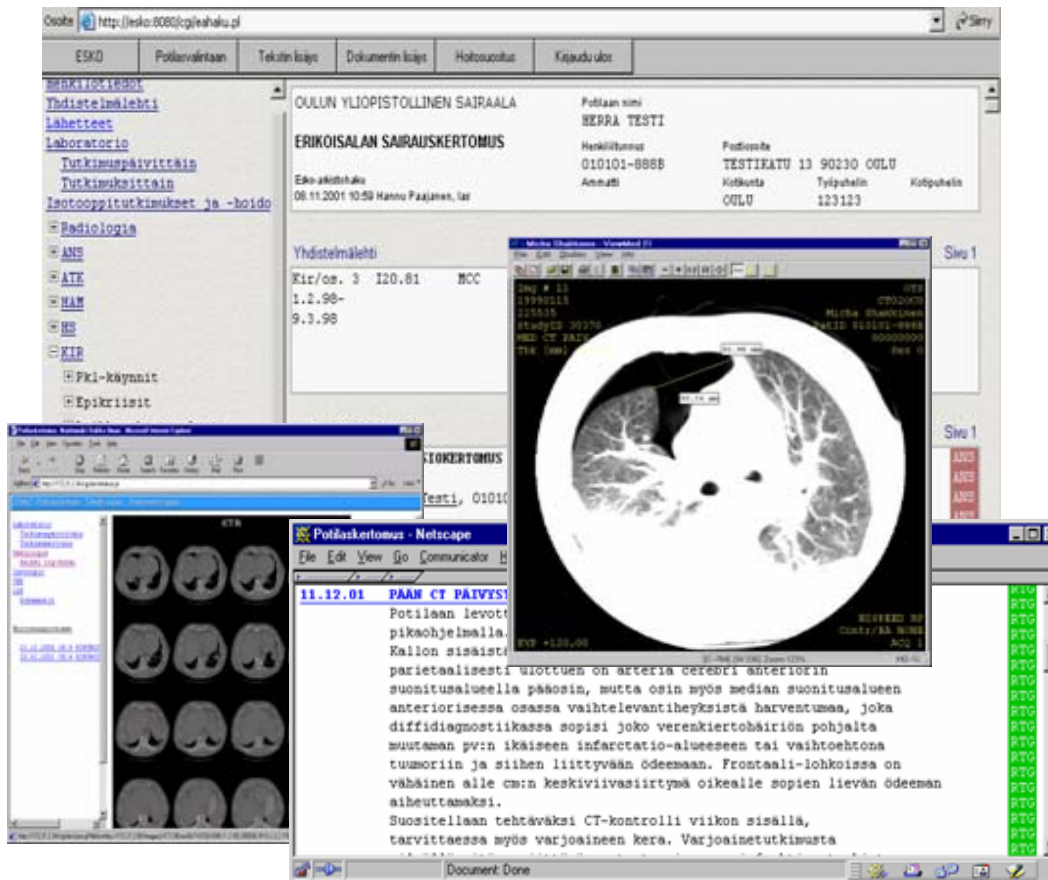
Current thinking of EPR
Architecture:

User interface

Local EPR software

Regional services

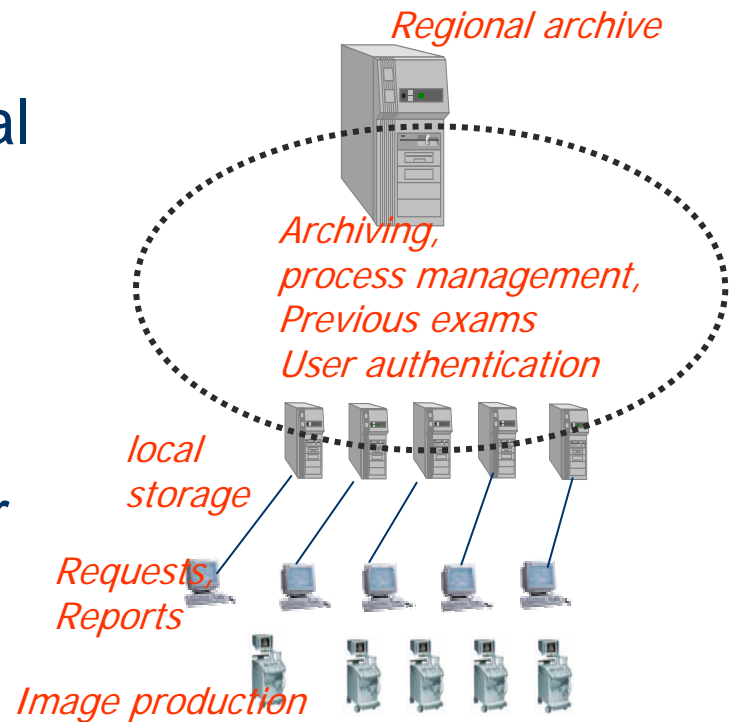
National services





Current trends: regional units

- Regional X-RAY and LAB archives/databases for hospital districts. *One for each of 5 univ hospitals?*
- New enterprises combining public and private sector.
- Virtual organisations.
- New subregions (> 35000) for organising primary care.
- E-referrals glue primary and secondary care together





Current trends: eHealth to the citizen

- Call centres for HC information delivery and acute services.
(*new law 3-3-3 rule*)
- Information services: e.g. maternity care in the Internet.
- Virtual doctors via a web-site.
- Delivery of laboratory results to the patient's phone.
- SMS appointment service. (*dentists*)
- Various services (e.g. diabetes care) based on Internet servers and phones.



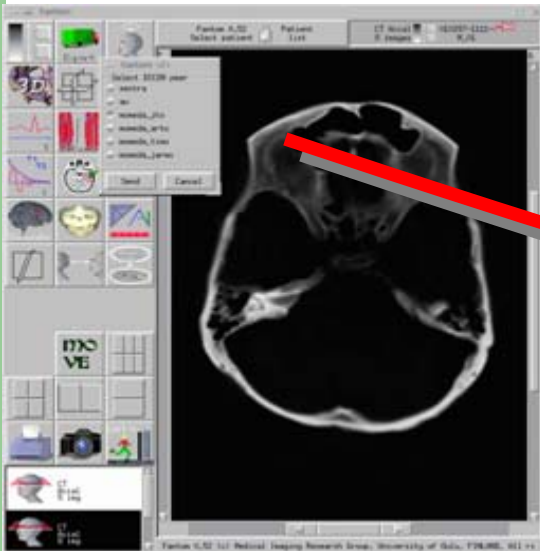
Atuline is a medical Internet consultation service and healthcare network that enables patients around the world to contact Atuline medical experts and receive reliable medical advice wherever, whenever needed.





Current trends: First mobile terminal

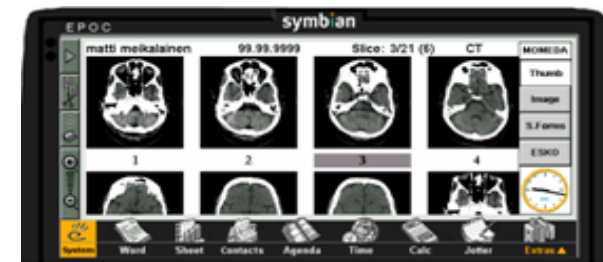
**The MObile MEdical DAta
Vision:
Physician Information
Terminal**



Diagnostic Workstation



Mobile Terminal



A need for a mobile DICOM image and EPR display terminal



Current trends: Mobile IP in HC

ProMoDaS

- Next generation mobile terminal

- **Professional Mobile Data Service**
(Finland, France, Belgium)
- Access to best expertise, when needed.
- Remote access to **Electronic Patient Record (EPR) narratives** even outside hospital (home care, elderly citizens).
- Portable devices that enable distant consultation can speed up the patient care and reduce unnecessary travelling.





ProMoDas: already in clinical environment

- Mobile terminal in everyday use at neurosurgery at the Oulu University Hospital.
- Wireless terminal enables:
 - Neurosurgeon can make his decisions before coming to the hospital
 - Decision of an operation.
 - Orders of patient care.
 - Patient preparation
 - Speed of care, more efficient use of resources.





Chapter 2:



Current trends: Multiprofessional collaboration

- Finnish Society of Telemedicine was founded in 11.1.1995.
- The second after American Telemedicine Association – first in Europe.
- Non-profit organisation, > 250 individual members and 20 enterprise members.
- The aims are to promote population health through telecommunication and disperse the expert knowledge within health care.
- Collaboration and education.





Lines of action 1: conference

- Finnish National Conference on telemedicine and e-Health every year. This year is 10th anniversary.
- The national conference includes international sessions on Scandinavian / Baltic states level

(see Lars Hulbaek from ISfT during his presentation and the icebraker swim...) ■

- The national conference rotates in different cities promoting local activities.
- Collaboration with EU and TEKES
(Nat.Technology Dev. Centre) R&D programs.





Lines of action 2 – the website

www.fimnet.fi/telemedicine collects information of telemedicine in Finland. Also English summary pages





Lines of action 3 – information delivery

- Special interest groups /subcommittees for enterprises and also for researchers in the field of telemedicine.
- Regular newsletter as an information source for members.
- Network of experts.
- Information of videoconference facilities within health care.
- Journal articles, starting from a special issue of Telemedicine in the Finnish Medical Journal in 1996 (guest editor J Reponen).
- Journal of Telemedicine and Telecare as an official journal (see issue 2005:1 for recent information!).



International activities

- Founding member of **Nordic Telemedicine Association (NTA)**, during past years research collaboration of TM activities within the Nordic countries.
- Board member of the new **International Society for Telemedicine & eHealth (ISfTeH)**.
- All FST members are affiliate members of respective organisations.
- Foreign correspondents.

The screenshot displays two web pages. The top page is the NTA (Nordic Telemedicine Association) website, featuring a red header with the NTA logo and navigation links: MAIN, PAPERS, PROJECTS, ABOUT NTA, LINKS, and CONTACT. It includes a login form with fields for 'User:' and 'Pass:', and a 'LOGIN' button. The main content area shows a map of the Nordic region and a section titled 'About the NTA' with the text: 'In March 1999 a group consisting of two members from each of the Nordic countries'. The bottom page is the ISfT (International Society for Telemedicine & eHealth) website, featuring a white header with the ISfT logo and a navigation menu with links: Home, About the ISfT, What's New?, Membership & Members, Conferences & Events, Available Documents, Downloads, Links, Telemedicine Directory, Press Material, Contact & Imprint, Search, Guestbook, Discussion Forum, and Sitemap. The main content area includes a 'Welcome to the ISfT' message and the text 'The International Society for Telemedicine'. A large ISfT logo is visible in the bottom right corner.



Current Finnish eHealth experiences - The End

Thank you for your attention!

More information at:

<http://www.fimnet.fi/telemedicine>

e-mail: jarmo.reponen@oulu.fi