

Czech eHealth Projects - Current Status, an Overview

Jan Vejvalka

Faculty Hospital Motol and 2nd Faculty of Medicine, Charles University, Prague

Introduction

Czech Republic

- Central European country (temporarily misclassified as Eastern Europe for some time)
- 10 M inhabitants
- (industrial) society in transition (and also health care)
- Socialist healthcare abandoned in 1990
- Population health status improving

Governmental eHealth Projects (1)

- Designed by the Ministry of Health
- Implemented as part of the eGovernment strategy
- How does eHealth relate to eGovernment ?
- What is the role of Ministry of Health in healthcare ?
(socialist tradition, free market, cultural aspects)

Governmental eHealth Projects (2)

- Electronic Health Records
- Electronic Prescriptions
- European Card (Insurance)
- Registers and consolidation of Health Sector Data
- Electronic Health Portal

Non-governmental eHealth projects

- Regional healthcare systems / projects
- Educational projects
- Infrastructure projects
- Research projects

Regional eHealth Systems / Projects (1)

North Bohemia Region (Ústí nad Labem)

- ICT as a tool for integration and consolidation of 4 hospitals who were recently merged into the Regional Healthcare S.A.
- Vertical infrastructure: dark-fibre optics, grid-based storage .. to patient records

Regional eHealth Systems / Projects (2)

Prague Medical Emergency Service

- ICT-controlled with GPS and wireless connectivity of ambulance cars
- Communication with large hospitals

Education and eHealth (1)

MEFANET

- Federation of Czech (and Slovak) medical faculties sharing (educational) contents
- CA-Federation (Shibboleth)
- All medical faculties, many other institutions
- An example of successful networking

Education and eHealth (2)

Atlases of Pathology

- Terabytes of scanned images
- Virtual Microscopy technology
- World-wide audience
- Potential for a killer application in pathology
- Limitations

eHealth Infrastructure projects (1)

IZIP

- intention for The nation-wide electronic health record
- political controversion, unclear motivation of various players
- Nowadays used by the largest (state-owned) health insurance
- duplicated by others
- standardizing potential (Prague Emergency, DASTA)

eHealth Infrastructure projects (2)

DASTA

- standard for exchange of health record data
- started by Ministry of Health in 1992, a broad discussion
- published as recommendation in 1996 (?)
- fluctuating support by Ministry of Health
- used (and further developed) by almost all software makers
- easy to deploy (!)
- related to further projects as e.g. Laboratory Data Coding Scheme (run by professional societies)
- used by IZIP, by health insurance, by state health statistics

Research Projects on eHealth

- Aiming at various aspects of ICT in healthcare
- Aiming at various levels of practical functionality
- Metabo, K4Care (and others) – EU FW international projects, IST for Health
- Personal monitors and locators – support to personalized care, e-Inclusion
- 3D modeling for surgery – complete chain of information processing from CT rays to plastic
- MediGrid: representing health data and knowledge as (grid-like) resources to be shared in ICT environment

Conclusions

Czech Republic and eHealth

Potential for collaboration at several levels

- governmental and non-governmental projects
- research projects and education
- running applications

Relevant experience

- from successful projects
- from not-so-successful projects

Thank you for your attention

jan.vejvalka@lfmotol.cuni.cz