

First Southeast European **eHealth**
Networking Conference
03rd – 04th of September 2009
Documentation

Content

Introduction	4
Welcome Speeches	6
Session I: eHealth Developments in the EU Member States	
eHealth Strategies of European Member States – Priorities, Experience, and Lessons Learned	
Empirica, Rainer Thiel	8
A Health Driven Strategy for eHealth Implementation, European Federation for Medical Informatics (EFMI), Jacob Hofdijk	10
Session II: Learning from Other Countries	
Bosnia and Herzegovina, Exit Centre, Dalibor Drljača	11
Turkey, Ministry of Health, Ali Kemal Caylan	14
Montenegro, Ministry of Health, Svetlana Stojanovic and Nebojsa Todorović	15
Hungary, National Institute for Strategic Health Research, György Surján	16
Moldova, University of Medicine and Pharmacy, Iurie Brinister	17
Albania, University Hospital Center “Mother Tereza”, Ilir Akshija	18
Romania, Ministry of Health, Stefan Staicu	19
Italy, TBS Telematic & Biomedical Services, Nicola Pangher	21
Germany, gematik, Andreas Grode	22
Slovenia, Ministry of Health, Smiljana Vončina Slavec	23
Session III: Networking and Collaboration in the Field of eHealth	
Overview of European Commission Activities in the Field of eHealth,	
DG INFSO, Michael Palmer	25
IV: Summary of Discussions	28
Imprint	30



Introduction

Information and communications technology (ICT) based solutions applied in the health sector (loosely defined as eHealth) can be used in a beneficial way when addressing the key challenges faced by health care systems. ICT-enabled applications supporting the provision of effective, efficient, good quality, seamless health care have been discussed and conceived for about 40 years. But only recently are they indeed successfully implemented at a larger scale. Both technical advances and pressing needs to cope with ever increasing demands on health care systems have led to a renewed interest in such solutions during the past decade.

The possible benefits of eHealth led to a wide array of initiatives on the European continent. Almost any state has thus passed legislation governing eHealth implementation strategies. Still, the initiatives remain fractioned and largely uncoordinated.

This is also true for Southeast Europe (SEE). Having identified this and the possible synergy effects that could be triggered by cooperation efforts, the GVG invited the Ministries of Health (MoH) of 16 countries, focussing on SEE, to the First Southeast European eHealth Networking Conference in order

to evaluate the potential and interest for exchange and cooperation among the participant states. The aim of the conference was to initiate an exchange of experiences about policy approaches, implementation strategies, change management and improvements achieved by the introduction of eHealth strategies in the participating countries and their impact on the structure, the performance, and the results of their health care systems.

Most of the countries in Southeast Europe have undertaken major reforms of their health care systems in recent years which not only implicated painful restrictions, but also generated considerable opportunities to introduce modern technologies and new instruments in order to support the objectives of national health care policy. The specific objectives of introducing eHealth applications are as different as are the initiators of these initiatives and the potential users and beneficiaries of the systems. Information has become a valuable asset which can be used for improving the patients' autonomy, or their access to health services. It can be used to

provide practitioners of different qualifications and at different locations with more comprehensive information, thus enhancing the quality of care. It can be used for improving planning, management, accounting, and monitoring processes, thus optimising the allocation of scarce resources. It can bridge the gap between different sectors of care, combine information of different origin and purpose, improve qualifications, and enable research.

Different approaches and procedures have been initiated or implemented in most of the countries. Some countries introduced eCards, others developed action plans or specific programmes for eHealth. Some are investing in broad and open platforms for several applications to be set up subsequently. Some countries are developing country-wide approaches and others are piloting regional solutions or take part in cross-border projects.

At the same time, however, the multitude of options and purposes of eHealth applications inherits a multitude of opportunities to fail. Even though the overcoming of fragmentations within a health care system is an often-used rationale for applying eHealth solutions, their introduction can result in the creation of even more informational islands. In addition, different strategies responding to specific needs may result in conflicting approaches.

Thus, the introduction of eHealth strategies, concepts, framework architecture, infrastructure and applications as well as a legal framework has to be carefully prepared. Sustainable solutions require that health policy objectives, informational needs, technical options and the diverging interests of different users are taken into account and brought to a consensus. Thus, an exchange of information and experience made in different countries can serve as a valuable tool for shaping eHealth-related decision making and implementation processes.

With the support of the European Commission (DG INFSO) and the MoH of the Federation of Bosnia and Herzegovina, the First Southeast European eHealth Networking Conference was held on 3rd – 4th September, 2009 in Sarajevo.

As many as 45 representatives from 12 Southeast European countries and their neighbours participated in the symposium, with the result of overwhelmingly acknowledging the need

for and potential of possible cooperations, knowledge pooling and networking, given the high diversity of initiatives within the participant countries.

We are pleased to present this documentation of the event and thank the speakers and participants for their contributions to the conference and their cooperation in the preparation of this documentation.

GVG, Cologne, January 2010

Welcome Speech by Safet Omerovic

Federal Minister for Health of Bosnia and Herzegovina

Distinguished ladies and gentlemen, dear colleagues and guests,

I have an exceptional honor and pleasure to greet all of you, on my own behalf, and on behalf of the Federal Ministry of Health, and to open the First Southeast European eHealth Networking Conference.

The Conference is organised together by the Federal Ministry of Health and the Association for Social Security Research and Policy (GVG) from Germany, and sponsored by the European Commission.

The concept of electronic health, or eHealth, is one of the most complicated applications of information and communication technology in any area of life.

Some of the advantages which eHealth brings are:

- Faster data analysis and data exchange
- Faster communication among various health institutions
- Better monitoring of the activities in the health system
- Improved personal data protection, better organisation of insured person's data base.

The application of the new technologies sets the rules of strong competition with the introduction of clear procedures which protect and exactly measure professional approach, responsibility, effectiveness and productivity.

Even the most developed countries in the world today are facing a lack of qualified health professionals, an increase of the elderly and industries that are fighting recession.

As a result of that, the most developed countries are no longer capable of providing high-quality and accessible health care for their citizens.

Therefore, eHealth could be one of the possible solutions how to meet the needs for an increasing number of population using the same amount of resources, still maintaining the same quality of services provided.

However, to start with the process of eHealth introduction, it is necessary to develop a clearly defined strategy and to engage all relevant stakeholders in this process.

An exchange of experiences with neighbouring countries, and with countries which are significantly advanced in the area of eHealth stands as an imperative.

We consider this conference as a good opportunity for presenting the eHealth situation in the countries of Southeast Europe.

And we have to recognise good experiences from other European countries and try to apply them in our own countries.

Finally, I wish you all a very successful work and a pleasant stay in Sarajevo and Bosnia and Herzegovina.



Welcome Speech by Sibylle Angele

Managing Director GVG e.V.

Dear Minister Omerovic, Ladies and Gentlemen,

Time is passing very fast: after nearly 10 years I am back in Sarajevo and I am very grateful to the Ministry of Health of Bosnia and Herzegovina and to the European Commission DG INFSO that they made this joint conference in Sarajevo possible.

The idea for this conference was born last year during a discussion between eHealth specialists from several countries – Mr Reinhold Mainz being one of them. Given that eHealth is one of the priority topics of the GVG and given our long tradition in international cooperation I have to admit that it was not a big deal for him to convince me to adopt this idea. The European Commission and our Bosnian hosts were equally convinced and here we are: representatives from 12 countries to initiate an exchange about eHealth developments in our countries.

eHealth is all about exchange of information and cooperation. Once systems are implemented

- they facilitate the exchange of medical and administrative information between different stakeholders of a given health care system,
- they improve communication between the stakeholders,
- they allow new cooperations between health care providers and
- they have the potential to enforce cross-border health care.

Thus, the growing role of telemedicine and telematics offers great chances to improve health care of patients and to make it more efficient. This means that eHealth can contribute essentially to ensure the organisation and financial sustainability of health care.

However, there are many potential obstacles to the implementation of functioning eHealth systems:

- The introduction of eHealth applications not only offers the chance to connect information and improve the information flow. It also inherits the risk of creating new informational islands.

- Specific needs of the system stakeholders may lead to different eHealth strategies and finally result in conflicting approaches.
- And finally, trade-offs may emerge between immediate needs and sustainable solutions, between comprehensive information and data protection, between informational needs and available resources.

Thus, the implementation of eHealth not only bears the potential to improve information but also requires intensive information exchange and cooperation.

The more stakeholders are involved the more exchange is required before a system can come into effect. This is the experience on the European level, this is our experience in Germany, and I am sure that this is also the experience made in all other countries trying to implement these new technologies. In this context it is of utmost importance that all stakeholders conceive eHealth as a tool to be applied for the benefit of the patients.

Another key issue is to ensure the interoperability of isolated applications: today, many high-level solutions exist in telemedicine as well as in telematic applications. However, the real challenge is to make these solutions compatible with each other on national level and across borders.

Both aspects – the development and implementation of eHealth applications and their interoperability – can only be achieved if all stakeholders are convinced of the potentials of these new technologies. Thus, acceptance is one of the key issues besides the development of high-level technology: the potentials of eHealth must be accepted by patients, by care providers, by funding agencies, and, last but not least, by politics.

It is in this tradition that I heartily welcome you on behalf of GVG, and I once more want to express my gratitude to our Bosnian hosts and the European Commission for their support to offer with this conference a possibility to exchange experiences and to lay the basis for networks of a continued exchange of information.

Session I: eHealth Developments in the EU Member States

eHealth Strategies of European Member States – Priorities, Experience, and Lessons Learned

Germany, Empirica, Rainer Thiel

European countries are committing their energies to making progress on the European eHealth agenda within the context of European and global health policy imperatives and against the background of an emerging smart health system paradigm: one of the health policy imperatives is the demographic change and, due to medicotechnical progress, the average age of the population increases and the elderly proportion of the population grows. We witness a consequent rise of chronic diseases, which is both related to age and lifestyle behaviour. Simultaneously, demand for more personalised care is rising, particularly by better educated, higher-income citizens.

These health policy imperatives lead to a redesigned, new model of health care: consisting of integrated, seamless care, which could be provided at home or in the community whenever possible (principle of subsidiarity). Activating the patient as the most unused health services resource forms a central part of the new model of health care. In order to contain costs, this model would encompass the standardisation of clinical pathways and a radical improvement of service productivity. Patient safety should be improved while data and knowledge sharing promises major benefits through the close integration of individual health care, public health services, training/education and medical research.

Based on Empirica's 2007 study eHealth priorities and strategies in European countries¹, 22 countries have explicit eHealth strategy documents and five as part of wider strategies. More than 50% of them are related explicitly to EU initiatives, such as the eHealth Action Plan or i2010, and many refer to implicitly. Health policy priorities should be supported by eHealth: Two thirds of the 35 investigated countries have their eHealth objectives linked to more comprehensive health policy objectives. Those objectives include cost containment, efficiency and quality of health care services, however, in no case integration with social care.

Dissemination of stand-alone applications and systems, building of national eHealth infrastructures and the set-up of national, electronic health record systems are clearly defined short and medium term priorities that can be found in half of the countries. Specific objectives include the introduction of eCards and other methods of identifying patients, web portals for citizens and health professionals, interoperability standards including semantic issues and legal and regulatory framework.

Developing an infrastructure is one of the implementation activities that can be observed. Dedicated networks connecting health service providers and other relevant stakeholders require broadband connections, technical and semantic interoperability, provisions for data security, a legal and regulatory framework and organisational infrastructures or competent authorities. Twenty-three countries have national networks at some stage of development with the Scandinavian countries being among the most advanced. Among the recorded implementation activities certainly are electronic health records (EHR). Some sort of EHR in forms of excerpts or summaries are planned nearly everywhere. Local or regional EHR systems with limited connectivity exist in six countries, national EHR systems, although limited in scope, exist in three countries, and the only country wide web-based EHR system exists in the Czech Republic.

Patient summaries have been in development in three countries and, for example, Denmark and Finland are expanding towards a national EHR system. The highly significant interoperability issues, a further implementation activity, comprising technical, semantic, organisational and policy/legal levels, are mostly part of larger, international initiatives such as EpSOS (European Patients Smart Open Services). Furthermore, within large-scale data exchange networks, it is fundamental to any eHealth strategy to provide for and implement a legal and regulatory framework which assures absolute data protection and security. Specific national acts on eHealth exist in seven countries.

¹ http://ec.europa.eu/information_society/activities/health/docs/policy/ehealth-era-full-report.pdf

When asked about the country's visions for future eHealth solutions, the study's national correspondents reported as priority fields a national electronic health record system in 15 countries, national health information infrastructures in 13 countries and ePrescribing systems in 12 countries. Interestingly enough, eCards, interoperability and standards as well as a legal framework are seen as supporting initiatives only. Among the topics that should have received more attention in future plannings are training and education of health professionals in eHealth, public health solutions and socio-economic analyses (ex ante and ex post).

A national success story for the introduction of eHealth solutions is the NHS emergency care summary (ECS) system of Scotland. There are 14 local health boards for primary and secondary care, 1,030 GP practices (family practitioners) and one national ambulance board in a 5.3 million population. The background behind introducing the ECS was the need for a "useful summary" for 'out of hours' (OOH) services, accident & emergency, NHS 24 (telephone helpline service) and ambulance services. Patient safety was the key driver behind the concept and implementation. After the decision to develop a comprehensive ECS, based on the GP's EPRs, a successful pilot in 2004 (with 100k records) led to the national roll-out in 2005/06. In an incremental and pragmatic approach, the initial focus was to have as data stored within the system only patient demographics, allergies and adverse reactions to medications, medication history and a possible consent flag.

In terms of acceptance and usage of the new system, it quickly became a full-fledged success. The amount of accesses to the ECS system rose from 200,000 in September 2007 to over 1.6 Mio accesses by July 2008. The system's economic performance can also be regarded as outstanding: in 2007, five years after the launch of the eHealth project, the value of

annual benefits began to exceed the annual costs, with a continuous growth guaranteeing to generate net benefits by 2012.

What were the success factors? In general, most prominent was the combination of a clear vision and a both flexible and pragmatic longer-term strategy. Furthermore, the application of modern ICT to actual concrete health care needs (i.e. not technology-driven) and an effective political and clinical leadership combined with a step-by-step approach enabling actors to successfully manage emerging risks became critical. Lastly, multidisciplinary teams and open trustful dialogues with all stakeholders – real engagement instead of mere consultations – also played a significant role in the success of the last years.

What can be learned from this example is that deep pockets and lots of patience are needed when planning to implement such an ambitious programme, for it can take up to ten years of sustained investment into the project. Also, usability and utilisation are key aspects when evaluating such a project. You also need to know what will be the outcome of the project: improved quality of health care, risk reduction for the patient, health care professional and payer, and efficiency in health services – and not cash. In a similar vein, most of the investment is not in IT (hard and software), but in an organisation's change management. As eHealth investments typically necessitate very long project life cycles, a realistic risk evaluation and management is of key importance, not the least for anticipating the many issues and processes that can go wrong.

Further Information:

DG INFSO, Unit ICT for Health (http://ec.europa.eu/information_society/activities/health/index_en.htm)

eHealth ERA (<http://www.ehealth-era.org/>)

eHealth ERA report "eHealth priorities and strategies in European countries"

(http://ec.europa.eu/information_society/activities/health/docs/policy/ehealth-era-full-report.pdf)

eHealth Strategies (<http://www.ehealth-strategies.eu/>)

A Health Driven Strategy for eHealth Implementation

EFMI, Jacob Hofdijk

The European Federation for Medical Informatics (EFMI) is a federation of European associations of medical and health Informatics from 32 countries and 12 institutional members and was founded in 1976. Objectives of the Federation are to advance and disseminate information on medical informatics on a European basis, to promote research and development as well as high education in medical informatics. In addition to a yearly conference on Medical Informatics, the MIE conferences and a series of special topic conferences, the EFMI maintains 17 high-profile working groups (EHR, technology, health IT use, domains) executing workshops, seminars and other training operations.

Much has changed since the beginning of modern medicine with the work of Hippocrates in the ancient world. Emerging from the insight that illness has natural causes instead of supernatural reasons and the development of the principle of health care as an encompassing strategy to modern health service systems in which citizens and patients can play an active role to prevent and manage diseases.

Today, we face the need for another paradigm change: from supply budgeting to demand-oriented contracting. As a result of our improved medical services patients survive and live longer. Together with a rising life expectancy the question arises how long our health systems will be able to deliver what is necessary. Will we have the trained personnel; will we be able to cover the costs?

In order to cope with these challenges, EFMI, based on the Dutch experiences, suggests preparing a plan towards integrated care, meaning that e.g. a diabetes patient is not treated by a series of different independent service providers within the health system, each billing him or her separately, but that those health care providers provide diabetes care according to an (inter) national care standard, delivering everything from diagnostics to treatment and billing their services in one single step afterwards by the coordinating care group who manages the integrated care delivery from both price and quality criteria.

eHealth is a necessary and integral part of this concept, due to the possibilities modern ICT offers towards integrated approaches. For example, EHR systems offer the basis for a consolidated and coherent care planning executed by former independent and disconnected service providers, which are now enabled to act according to an integrated treatment plan.

The goal is to have multidisciplinary care delivered by one entity and based on an individual care and treatment plan. This care-driven approach combines many of the objectives of modern health care policies and gives a boost to the active use of eHealth in the community with a special focus on prevention and self management. The next years will tell if this approach will be the driver for a wider and more active use of eHealth and a growing multidisciplinary approach to health care delivery, killing the traditional silos.

Session II: Learning from Other Countries

Improving Governance and Inter-Ethnic Cooperation in Bosnia and Herzegovina through eHealth

Bosnia and Herzegovina, Exit Centre, Dalibor Drljača

Basic data on the project

The project "Improving governance and inter-ethnic cooperation in BiH through eHealth (eHIGICo)" arose as an idea of Rikshospitalet from Oslo, Norway, that is acting as project coordinator, and EXIT as implementing agency in 2008. In order to widely spread project results and to have political support, Ministries of Health in both BiH entities have supported the project application. Funds for this project were provided through a programme of the Norwegian Ministry of Civil Affairs. It is expected that the first phase of this project will last until 01-01-2011 and for this phase project costs were estimated at approximately 600,000 EUR.

Project goals

The project has two general purposes.

Firstly, to establish a country-wide eHealth portal that will provide the following benefits:

- Improve access to transparent health-related information
- Improve patients' communication with health care professionals
- Establish a consumer health education process Health care providers will be empowered with eHealth tools for everyday practice
- Most importantly, consumer self-care support, and
- Integrated service support for chronic care

The second purpose is to improve continuing medical education (CME) for health care providers through the use of information technologies. The aim of the CME portal development is to improve knowledge and skills of health care professionals in order to provide better health care services and to have more satisfied patients. The basic characteristics of this portal will be modularity, standardisation of content and a user-friendly approach.

The project generally has two target groups:

- Patients (or the general public) and
- Health care professionals

The main benefit for patients is that they will be provided with an improved quality of life and availability of a continuous follow-up of the achievements in modern medicine. The public will also be able to obtain important information about facilities offering health care services, about the quality of care in various institutions, the costs of services, and waiting times in different institutions. Personalised information regarding the status on waiting lists, expected waiting times, possibilities for use of private sector facilities etc. will be made available to the public and to health care workers.

On the other hand, health care professionals will be able to better plan their time management and make time savings. Thanks to this they will be able to do more on personal improvement and upgrade. This, in turn, will provide patients with an improved quality of services, and professionals will be able to upgrade their position compared to others and achieve a competitive advantage.

eHealth portal

The project foresees an eHealth portal consisting of three parts. Due to BiH's internal structure comprising two entities, the overall portal will be based on two separate portals – one portal for the Federation of Bosnia and Herzegovina and another one for the Republic of Srpska, plus a BiH super portal. The structure and content of these two entities' portals will be more or less the same and will depend on the engagement and hard work of local contributors and content providers. The umbrella portal (BiH) will use all available and needed data from both portals for its content, but will be supplemented also by own information (available international news, etc.).

Basic content update will be effected at the level of the entity portals. Each of these portals will have a team of staff forming

an Editorial Agency which will be in charge of regular portal updates. This agency will take responsibility for the portal's content and follow up all the rules regulating publishing of information in public and at portals. On top of this chain will be the Portal Coordinator of the BiH portal.

Materials to be placed on the portal are various, from simple news with or without images, to different presentations, all the way through to the most advanced learning tools, like multimedia presentations or streaming content. Materials can be of informative or educational nature and, as such, will be classified by the Editorial Agency. In case of educational materials, they will be stored on a separate part of the portal, named CME (continuous medical education). This part of the portal will be password-protected and accessible from both the BiH portal or the entity portals.

eLearning in Continuous Medical Education (CME)

The second most important benefit from this project is the establishment of eLearning in CME. This will be achieved with the help of a special part of the eHealth portal. This part of the portal is designed to provide the educational basis for health care professionals (doctors and nurses) and supportive staff like administration, but it can also be used for additional training of undergraduate medical students. CME is a process combining traditional learning on the one hand, e.g. review of literature, reading of books, collection of information by means of other sources etc. On the other hand, the CME portal intends to provide target groups with up-to-date content prepared with assistance from state-of-the-art tools for distance education and eLearning. The saying "a picture is worth a thousand words" should be a kind of a motto for the CME portal. The combination of these two kinds of education will increase the number of persons actively participating in the educational process provided by this portal.

In the CME Learning Management System there will be two main processes with several groups having different roles and authorities. Every course in CME must be accredited by an authorised institution. The overall controlling process will be organised by means of three boards: editorial, accreditation and certification. The two main actors involved in the preparation of materials for CME are the content authors and the content development team. Their task is to organise the courses and to make materials for these courses suitable for

eLearning. The content development team should be an organisation (preferably external) disposing of professionals and skills for the preparation of high class multimedia materials for CME in accordance with the SCORM Standard. On the other side of system there are health care professionals and the administration who use these materials for formal or non-formal education purposes.

The CME portal will provide a Managed Learning Environment (MLE). The MLE will assist course participants in the achievement of their results in formal or non-formal education, in creating their own professional development plan based on present legislation and not conflicting with formal education. It will enable the course participant to produce an ePortfolio with reports on the achievements made during the education process. This part will be of interest for the Medical Chamber and other institutions that are authorised to issue certificates for passed courses and will be a sound basis for the initiation of a licensing procedure for doctors.

So, what are the expected results?

In the first place to establish an eHealth portal for native speakers – formed as technologically and internationally inter-operable communication framework for the implementation of the project goals. Secondly, the aim is to empower both consumers and health care professionals with collaborative, interactive and state-of-the-art tools to support interactive services. CME is to serve professionals in continuous educational purposes, based on the maxim "learning on your own pace, at any time, from anywhere" with improved motivation for work.

It is also expected that eLearning in CME will be recognised by state authorities, but also by its users as a system that benefits for all. It is expected from the part of the Norwegian partners to contribute through the transfer of know-how and by pilot courses to be set on the CME platform. Particular contribution is expected from the Ministries in terms of investing additional efforts in legalisation and support of these activities. Moreover, it is intended to create a system that is easily re-applicable in any other country of the Western Balkans that needs improvement in this sector.

It is expected that this project and its results will contribute to an increased awareness of the health care process by nationals formulated in an easy-to-understand language, to increase user satisfaction and to widen target groups by the utilisation of added-value applications that will be developed.

Conclusion

To summarise, the aim of the project is to put at the disposal of BiH citizens an eHealth portal that will assist and serve citizens in order to be better informed and aware of what is going on in medicine. Health care professionals can expect that the project will provide them with modern technology and procedures for online interaction with their patients, not only in direct contacts. Moreover, they will avail themselves of a sound, modern, and modularly oriented platform for distance and eLearning purposes.

eHealth Practices in Turkey

Turkey, Ministry of Health, Ali Kemal Caylan

The MoH of Turkey is currently implementing a "Health Transformation Programme" aiming at:

- Restructuring the Ministry
- Covering all citizens by general health insurance
- Implementing family medicine
- Promoting private sector investments in health
- Realising e-Transformation in the field of health

The mission behind this effort is to develop "active, rapid, trustworthy and accessible health care systems respectful to individual rights but also to appropriate international quality standards".

Several projects are currently underway to lead this mission to success. The most important being the "Core Resource Management System" (CRMS) and the "Primary Health Statistics Module" (PHSM), delivering ICT-based coordination and networking via the CRMS and coherent and structured information and statistics for key health system stakeholders through the PHSM.

With the implementation of the "Family Medicine Information System" in 2004, Turkey made its first step towards the introduction of an EHR. Furthermore, several eHealth practices were launched in recent years, like a pilot project for the introduction of smartcards and ePrescription (2009) or the "Saglik-NET" platform (2008).

The "Saglik-NET" platform aggregates all eHealth practices and aims at establishing an electronic health record database, thereby complementing the FMIS. "Saglik-NET" receives data (examination data, monitoring data, etc.) from hospitals, laboratories, family doctors, etc. using the internationally recognised HL-7 coding standard. Reports generated using this data will allow objective data-based evaluation of e.g. the dispersion of cancer cases in accordance with provinces in Turkey.

Presently, over 1,200 institutions deliver data to the platform, thereby contributing to the enhancement of the overall institutional performance. A total of 86 different report forms have been designed and completed.

In 2008, the MoH started a telemedicine project, which now covers 71 hospitals. The project's objective was to fulfil the experts' need for image and report sharing and information pooling. This contributes to making the right diagnosis regarding complex cases and also increases patient satisfaction.

The smartcard and ePrescription projects are also embedded into the "Saglik-NET" framework and are currently in the pilot and evaluation phase. Up to now, 10,000 cards have been distributed during the pilot procedure in Bolu.

Although great steps forward have been successfully taken, major challenges remain. The large-scale implementation of eHealth projects stresses the human resource factor due to the need to adapt to new applications, new habits and an increase in workload. Additionally, the private sector is not up to its commitments in terms of software production, while on the other hand a lack of regulation for information safety and privacy persists that needs to be overcome in order to successfully finish the implementation process.

Development of eHealth Services in Montenegro – Overview and Future Work

Montenegro, Ministry of Health, Svetlana Stojanovic and Nebojsa Todorović

In 2003, the Government of Montenegro started a more intense effort in developing eHealth services with the reform of primary health care. Montenegro's public health institutions network today comprises 18 primary health care centres, seven regional hospitals, three special hospitals, the Clinical Centre of Montenegro, the Institute for Public Health, and the Pharmaceutical Institute of Montenegro.

Crucial problems of Montenegro's health care system preceding the decision of developing reforms were mainly: a low quality of health care services, the low-level working conditions and organisation, the low level of communication between patients and medical staff, the lack of medical and non-medical staff educated in the field of using ICT and new technologies in medicine as well as inadequate legislation, which was not in accordance with international standards and directives.

Thus, the Government of Montenegro adopted a variety of laws between 2003 and 2008, aimed at developing a more efficient health care system in accordance with international legislation and standards. Among these laws and action plans were the "Strategy for Implementation of ICT in Health Care" (2004), the "Law on Data Collection in the Field of Health Care System" (2008) and the "Health Development Strategy" (2003). In order to overcome the lack of information on modern strategies and systems, study tours and presentations of good practice from the region were organised during 2003 and 2004. Furthermore, the MoH developed a pilot project,

"Telemedicine Network of Montenegro", which was presented in 2004 and established an online connection between the regional hospitals of Bar and Berane with the clinical centre of Montenegro in Podgorica.

With the beginning of 2004, Montenegro started to implement modern information systems to different parts of their health care system, starting with public pharmacies (2004), the health insurance fund (2006) and a few primary health care institutions (2007). Since 2009, all primary health care centres on the territory of Montenegro have completed the implementation of primary health care information systems.

Current strategies for further reforms encompass the implementation of modern information systems to the secondary and tertiary health care level. Since the implementation of recent reforms raised the awareness of the need of specialised registers in various fields, current reform plans focus (among other things) on creating special registers for communicable diseases, drug abuse and psychosis, accidents et al.

The MoH's strategy for future enhancements to Montenegro's health care system is:

1. to seek inter-institutional cooperation with all relevant stakeholders in the health system (within the country, the regions and abroad);
2. to foster the exchange of good practices;
3. to continue the education of medical and non-medical staff in the health care system;
4. to create or improve legal frameworks in accordance with international standards and recommendations;
5. to improve the health care system in general using new scientific research;
6. to include the private sector into the public health information system.

The “Long Short-Story” of the National eHealth Programme in Hungary

Hungary, National Institute for Strategic Health Research, György Surján

In the 1960s a strong scientific activity of a small engaged community started, but it did not have much practical relevance and was not able to take part in the international and European integration. In the 1980s a reform of the health care financing systems was prepared, when PCs emerged. The reform came into force in the 1990s and implemented an output-based financing system (case mix for hospitals). There has been in place a MBDS database of all hospital cases since 1993. In the mid 1990s the World Bank financed a programme to support the development of HIS. Between 2003 and 2006 a national eHealth programme was developed. It included standard development, terminology-ontology development, digital signature, certified registries and a health portal for professionals and citizens. A regional health information system project was implemented between 2005 and 2008 (HEFOP 4.4).

There were some difficulties, which kept the intended programme from finalisation. The World Bank programme was cancelled after the first turn, which resulted in homogeneity of HIS for only about 30 involved hospitals. The National eHealth Programme was cancelled two years after development with incomplete and not usable results. HEFOP4.4 started without sound foundations. There was only technical interoperability, not semantic interoperability.

Even if the recent situation is affected by the political and economical crisis, there are plans to use structural funds for the electronic health insurance card, certified registries and a central validation system for health care episode reports.

One key issue of the plans is the development of eHealth projects, which span over political cycles by nature, because SEE countries are characterised by relatively quick changes of political courses. Another key issue is that the civil society is not strong enough to take over the job. Moreover, there are the key issues of a fast developing technology which results in swift changes of paradigms, and the understanding of potentials and limitations of ICT, which is difficult for non IT professionals (politicians, health care professionals).

As to the future of eHealth Hungary tries to move away from politics as much as possible, because resources mostly remain in the hands of politicians and it is important to strengthen civil society. They want to define feasible, useful and short projects to convince decision makers and prevent failure of large projects, which would jeopardise their credibility. Moreover, they want to include a good IT support in every health care project, because there are no IT projects in health care. They plan to use a certain percentage (1-5%) of IT support in every health activity.

ICT in Health Care in the Republic of Moldova

Moldova, University of Medicine and Pharmacy, Iurie Brinister

The Health Care system of Moldova underwent considerable changes over the past 18 years. From a gigantic (for Moldova) and costly system based on hospital care and “by need” financing, health care in Moldova moved to more effective compulsory insurance based systems, strongly reducing hospital overcapacity, and channeling funding into primary and emergency care. Preventive care gets new roles and follows the route to true Public Health.

Global changes in the utilisation of ICT in the health sector and growing needs of all actors for health services and health information justified the race of ICT reforms in health care, including eHealth and telemedicine on the national policy agenda. Besides the National e-Moldova strategy, comprising an eHealth element, the concept of Integrated Medical Information System supported by an action plan has been leading the implementation of ICT in the health sector.

Harmonised Strategic Framework

- National Development Strategy 2008-2011
- Health Care Sector Strategy 2008-2017
<http://www.gov.md>, <http://www.ms.md>

E-Health Context

- In 2005, the Government adopted a National Strategy on the Building up of an Information Society e-Moldova
- The National Strategy on the Building up of an Information Society e-Moldova contains a chapter dedicated exclusively to e-Health

Action Plan 2005-2010

- <http://www.e-moldova.md>

Although at the initial stage several national automated management systems (blood transfusion and donor control, TB management, medicines control) were developed, some institutions implemented electronic patient records at the level of clinics in primary and hospital care. Health care education assimilates and uses new distant learning tools at national and international levels, and experimental telemedical applications were launched in neurology, neonatology and ophthalmology.

Roadmap documents for ICT development in healthsector:

- Concept of Integrated Medical Information System, adopted by Government Decision Nr.1128 on 14 October 2004
- Action Plan for his implementation, elaborated by Ministry of Health in January 2005 (<http://www.ms.gov.md>)

Recently, Moldova signed the eHealth declaration that culminated the Czech Minister Conference on eHealth for Individuals, Society and Economy thus stipulating its commitment to follow the European path on a wider implementation of eHealth tools in the country and integration in the European eHealth area. There is a deep understanding that “cooperation” is the key success factor in leveraging development of a sustainable national eHealth policy, boosting ICT-based cross-border health care education and research, elaborating new health promotion programmes and viable clinical applications through the implementation and utilisation of a range of eHealth tools in collaboration in the regions and internationally.

Use of Digital Technology to Improve Government Services and the Albanian National Plan for the Development of ICT in Health

Albania, University Hospital Center „Mother Tereza“, Ilir Akshija

The national eGovernment policy and strategy in Albania was introduced in 2004, but only in 2007 ICT for health procurement came in to force. Use of ICT is still being developed focally in different areas of the Albanian health care system. Some of these changes are very profitable but are not systemic; and the health information system suffers from typical discrepancies of independently developed components, as standardisation, etc.

The government policy of making health care a priority for the next coming years, and the necessity for change, accompanied with increasing awareness made indispensable the earnest evaluation of the Albanian health information system in collaboration with the WHO during 2008. The group of specialists engaged in the elaboration of the action plan worked until August 2009, and the action plan will be available as from September 2009. This action plan has a span of five years, and all stakeholders are involved in its designation and will be key players during the phases of implementation. The interventions are properly aligned with the Central Government policies and the new strategy of MOH (in place from 2007). Important principles are taken into consideration (centralisation where necessary, but saving and empowering the local autonomy of institutions, goals are endorsed to the physiognomy of the action plan, international standards are required, data privacy and safety are among the priorities, etc.).

The issue of connectivity on local and national level is seriously taken in consideration. The action plan describes the relationships between local and national levels. International connectivity is not taken into consideration and is subject to further study and change. Internal and external factors are determinants and we think that the process of opening and integration of Albania is the precursor for this change and opportunity.

The e-Romania Internet Portal for eHealth

Romania, Ministry of Health, Stefan Staicu

The Health Sector IT Strategy proposes to achieve in the short and medium term an Integrated Health Information System (IHIS). Action is required in six areas of intervention for cooperation and coordination of national ICT services:

- 1) Harmonisation of the legal framework with widespread use of ICT
- 2) Creation of a common information structure
- 3) Creation of a common technical infrastructure
- 4) Facilitating interoperable ICT systems
- 5) Easier access to information across institutional boundaries
- 6) Making information and services accessible for citizens

Developing an IHIS as a common structure and technical information system will encompass several components. The first one is the Decision Support System (DSS) where all data is collected in the IHIS computer system in order to serve as support for making decisions. The second component, composed of the elements of Electronic Prescription and National Framework of Health Insurance, is intended to be used for national health records as an identification method for a set of related records. The last component, the Presentation System (PS), consists of several subcomponents comprising the Health Portal, System Administration and Support, and, in addition, the Metadata Storage System. The citizens of Romania are the target group of the Health Portal, and it functions as a gateway for communication and interaction with the health system. System Administration and Support is geared towards effective monitoring and the supervision, support, and development of the IHIS information system. Another subcomponent is the Metadata Storage System which works as a storehouse and will serve as a central fund for standards, terminology, classifications and a description of basic concepts which involve data elements and data sets. In addition, the proposed applications of telemedicine and statistics are part of the IHIS.

One priority axis of the Sectoral Operational Programme "Increasing of Economic Competitiveness" is ICT for private, as well as for public sectors. Components developed by the

Ministry of Health of Romania in the field of eHealth are an electronic prescription system, an electronic patient dossier and a national electronic health card. An improvement concerning eGovernment can be realised by establishing an information portal for citizens on health themes. First and foremost, the objectives of the eHealth Portal project are the provision of public services and the streamlining of the activities of the sanitary units. These are major objectives because insurance needs complementary information about people and businesses in the field of hospital care, and they need information used for decision making in hospitals and in health authorities at national, regional, county, and local level.

The overall objective of the eHealth Portal project will be achieved through the following specific objectives:

- Design of a central computer system to inform the population, and support for decision making in hospitals;
- Development of a portfolio of online services within the computer system
- Training for health system users;
- Promote awareness, prevention and ensure the project.

By implementing the Central Computer System which will be a portal for information and consultation, the following aspects are covered:

- Improvement of electronic methods of collecting, processing, analysing and disseminating data;
- Alignment with EU standards and norms;
- The Ministry of Health of Romania will increase the visibility of the medical community and provide quality public information services;
- Streamlining of the manual activities of the current flow of information;
- Increasing transparency of the use of resources

Primary data and indicators proposed for CCS are data identification for name, location, type of hospital organisation structure (departments, number of beds etc.) and also contacts. Primary data also include data on human resources, on income and expenditures and on hospital activities. Indicators which are proposed for CCS are performance indicators of hospital management. Five activities are necessary for the implementation of the project. First of all, the CCS has to be developed and implemented. The second activity concerns the training of personnel with responsibility in the management of the CCS in terms of data entry, analysis of data, etc. In the next step, information about the project needs to be communicated in order to raise public awareness and advertise the project in accordance with the provisions of EC Regulations. The last two activities consist of project management and audit.

For implementing an electronic application at the Ministry of Health, the CCS will be interconnected with the National Electronic System (NES) according to national legislation. The central point of the NES is an access to electronic information and government services and it offers users a range of electronic services. For example, for private companies there is access to forms and administrative government procedures and also an access to information for contacting local, regional and central public institutions. In order to

develop eGovernance and government applications for ensuring interoperability at national level, it became necessary to create a common platform that provides minimal means of standardisation, interoperability and secure transfer of data between public institutions, and between institutions and beneficiaries of public services providers.



Innovative eHealth: an International Experience

Italy, TBS Telematic & Biomedical Services, Nicola Pangher

There are several changes in health care. The costs are increasing, because health care is a victim of its own success in innovation and curing more diseases, the majority of resources is now spent to treat chronic instead of acute diseases, medicine is becoming personalised, and there is the need to manage and measure process performance. TBS wants to face these changes of health care by connecting every health care component in the "age of convergence" with PHI technology.

A home monitoring project is ongoing in Italy: within a period of three years and with a funding of 1.8 million Euros, 300 patients who are affected by chronic diseases (oncology, diabetes, chronic obstructive pulmonary diseases and cardiac insufficiency) are monitored. The study is performed by ASL VCO, a public health care organisation holding three hospitals. Empowering the Continuity of care for VCO's chronic patients by reinforcing the care of non-acute patients, not yet enrolled in any other home care plan and living far from Emergency Rescue Centres, was one of the objectives of the study. Also an experiment innovation in tight integration between hospital and territory was an objective. Other objectives were to:

- a) avoid unnecessary access to ER;
- b) avoid unnecessary specialist treatments;
- c) avoid readmission to hospitals.

The second case study was an integration of an EHR system in Veneto. Partners like Infracom, TBS and TMR-Telemedicina-rizolli worked together with four Health Service Units. The goal was to create a shared information network among the four ULSS (local health service units) in the Veneto region. The information network was used to diagnose illnesses and diseases quickly and safely, to monitor patient's health condition, while avoiding unnecessary and dangerous ambulance transfers and to allow multiple consultations from several health stations spread inside hospitals and over the territory.

One of the project goals was the bidirectional transfer of clinical data by using well-known standards, operating through standard clinical procedures and ensuring good

quality of data and clinical images. Another one was to provide the clinical staff with easy and powerful tools in order to facilitate remote decision making and consulting activities. Further goals were the real-time and simultaneous operation (video-conferencing) in order to share diagnosis and treatment guidelines with other specialists and a legal and structured archiving consultation activity, which included third-party certification of transactions and legal compliance ensured by the usage of digital signature.

Further case studies in EHR in System Integration were performed in Carinthia and Tyrol (Austria).

The German e-Card Infrastructure Set-up

Germany, gematik, Andreas Grode

In 2005, 15 top organisations of the German health system founded the gematik GmbH, the "Gesellschaft für Telematik-anwendungen der Gesundheitskarte". This company was to develop, introduce and maintain the German health card, which should cover insurance data, ePrescription, and work as European Health Insurance Card (EHIC). Furthermore, it offers several other applications which can be used on a voluntary basis.

The challenge was to create a secure, interoperable and flexible platform for one of the most complex post-industrial health systems worldwide. Germany with its over 270 health insurance companies, 2,200 hospitals, 20,000 pharmacies and 80,000,000 population is quite a challenging environment for such an ambitious project. The overall goal of the operation was to improve the efficiency, transparency and quality of medical care in general with a unique infrastructure allowing the exchange of information between doctors, hospitals, pharmacists and health insurance companies.

Having started with only 30 employees, gematik now consists of 200 people and is based in Berlin/Germany. The company works closely together with the Federal Ministry of Health and the Federal Office for Information Security. While the Federal Ministry of Health delivers the legitimacy and supervision for the project, the cooperation with the Federal Office for Information Security focuses on information security and privacy issues.

Seven test regions in the north, west, east and south of Germany were identified and are currently piloting first applications. Those regions already cover more than 60,000 patients, 180 doctors, 130 pharmacists and 11 hospitals.

The functions of the health card are divided into mandatory applications and voluntary applications. The mandatory applications cover insurance data, ePrescriptions and the EHIC, while the voluntary applications offer a wide range of services available to the patient, e.g. emergency data (chronic diseases, pharmaceutical incompatibilities, etc.) or the patients receipts (activities and charges of a therapy).

As data security concerns are a serious issue within such an operation, gematik has applied a layered security mechanism for the German health telematic infrastructure. This mechanism features several levels of security measures aimed at prohibiting unauthorised access to sensible data stored either on the card or on the side of the service provider. These measures contain e.g. individual encryption and mutual authentication on the client and server side during data transmissions. Additional, more detailed information on the project and security measures implemented can be found at www.gematik.de.

eHealth in Slovenia and some Important Projects as: Implementation of the New Insurance Card System, National Waiting List, Electronic Prescriptions and Electronic Medical Records

Slovenia, Ministry of Health, Smiljana Vončina Slavec

The eHealth project in Slovenia is a national development project. Between 2008 and 2015 it is going to be co-financed from the European Social Fund. The total amount of the funding is about 31.8 million Euros, whilst 85% of the amount come from ESF resources, and the remaining 15% from a budget of the Republic of Slovenia.

The substantive starting points of the project are the eHealth Strategy for 2006 to 2010, the conceptual model for the national health information system (eHIS) which started in 2007, and, last but not least, the feasibility study of the national project and action plan starting March 2009 and ending in 2015. The eHealth project is structured into three sections. In the first section the eHIS components are going to be established. The eHIS components consist of the network zNET, the central portal zVEM and the standardisation of the electronic health record EHR. The zNET is the national eHealth network which ensures secure, reliable and suitably efficient and flowing environment for the data exchange. The plan for December 2009 is to establish the central equipment and to reach 95 end points. The second part of the eHIS component is the national eHealth portal called zVEM. According to the plan of 2009, the framework and basic services as well as the national waiting lists and e-booking system and the implementation of exchange, as well as some of the e-Documents like e-prescription or e-referral should be developed. The last component concerns the standardised structure of electronic health care records (EHR) where the administrator of the main EHR for each citizen is their selected general practitioner. The single parts of the EHR shall be collected by the health care provider who treats the patient. The pointers to the locations of the EHR of the patient will be kept in the central registry

(PEZZ), but the location of the patient summary has not yet been defined (epSOS). For the year 2009, the development of an EHR model and the implementation of a standardisation process are planned.

The aim of the second section of the eHealth project is to establish a Centre for Information Technology in Health Care (CIZ). The CIZ is to serve project management purposes for the development of strategic infrastructure components (zVEM, zNET and EHR). Besides, there should be a central support to the national project. This will require an administrator and a distributor with good know-how and good practice.

The last section of the eHealth project wants to improve the health care process for all groups by promotion, training and education. This should be done with different target groups, different forms of the programme and with different areas of knowledge. The plan for 2009 foresees training for ICT security and reliability as well as project management.

Some complementary projects by the Health Insurance Institute of Slovenia concentrate on redesigning the current health insurance card which is going to be an access key and no longer just a data carrier. The access to data in the network is only possible with a health insurance card and the permission of the patient. Also innovative about the card is that it allows the storage of digital certificates. In addition, a Health Professional Card (HPC) will be introduced which is a digital certificate carrier and enables secure e-communications. The physician's and pharmacist's HPC is the carrier of a qualified certificate and permit e-signatures which are equal to handwritten signatures. The benefits of the new HIC and HPC are perfectly obvious for all target groups. For the patients the advantages lie in an increased confidence and independence through comprehensive security measures and access to their own data and also through simplified procedures. For health

workers less time will be required for administrative processes. There exist additional administrative data for the communication between health care workers and additional medical data for increased quality of treatment. The advantage on the part of the health insurance providers consists in a better control of the health insurance status and of the rights of insured persons. All in all, HIC and HPC represent a reliable, secure and open infrastructure for eHealth.

The remaining question which needs to be clarified is: Why eHealth? It is out of the question that eHealth does not come with direct financial savings. But there are other benefits. The citizens are much more aware of their own health and are deeply involved in the health care process. The result of these conditions is less visits to doctors and hospitals. Health care providers have more information to take the right decision as well as the possibility to work from a distance. This encourages quality and efficient work.

Session III: Networking and Collaboration in the Field of eHealth

Overview of European Commission Activities in the Field of eHealth

European Commission, DG INFSO, Michael Palmer

The question of how to offer high-quality while still affordable health care is raised not only in developing or industrialising countries, but also in many countries of the western world. Today's modern health care systems are pressured by various factors, which range from demographic change to the increased prevalence of chronic diseases as well as the fact that in many states, the health care costs are growing faster than the economy as a whole.

In order to effectively counter this development a new model of health services delivery is needed, which is citizen-centred and efficiency-orientated. The use of modern data processing technologies allows a new integrated, shared and continuously updated patient information system, capable of a significant increase in health system efficiency.

During the last decade of the 20th century research and development focused on using modern data processing technology to establish regional health information networks, connecting various health service providers and pooling available data. Since 1999, a significant switch in the focus of research and development took place, when connecting the individual with the established regional health information networks became the centre of attention. During the past five years research and development ambitions have focused more on drawing a full picture of the patient's individual health status, by taking into account personal biosensoric, genomic and phenomic data in order to create an individual integrated health record.

In order to foster this trend, the EU has allocated over 150 million EUR (2008-2009) of its "7th Framework Programme for Research and Technological Development" for the development of eHealth solutions. In addition, the EU developed a comprehensive strategy for its eHealth activities, which covers a short-term eHealth "Action plan" as well as mid-term (e.g. the establishment and distribution of Personal Health

Systems) and long-term (e.g. concepts of biomedical informatics) activities and plans. Although a wider deployment of eHealth solutions holds great potential, technical and organisational challenges remain.

The lack of awareness, training and acceptance of practitioners as well as ineffective funding, reimbursement and procurement, interoperability issues, market fragmentation, ineffective standardisation et al, present a noticeable barrier to wider implementation of modern eHealth solutions.

Furthermore, regulatory issues also threaten to slow down the implementation process. Legal uncertainty, referring to accreditation and authorisation, liability and reimbursement leads to a lack of trust among stakeholders. The concern about possible public opposition due to the perceived risk of breaching privacy and confidentiality of personal data is just another reason for the implementation process not to reach its full capacity.

The European Commission, aware of these challenges, has developed an "Action Plan for a European eHealth Area" (COM 356) in 2004, consisting of national/regional roadmaps for implementation, designs for interoperability standards for EHR, plans for a consistent certification and labeling system (Q-REC Project) and plans for a yearly ministerial conference & exhibition.

So far, 27 roadmaps have been published, three different high-profile conferences were held and 23 of all 27 EU Member States have explicit eHealth policy papers.

The EC has also engaged in defining eHealth market sectors, in order to allow common approaches of stakeholders. Common differentiations of market sectors are:

- Clinical Information Systems
- Telemedicine systems and services
- Integrated regional/national health information networks
- Secondary usage non-clinical systems.

The evaluation of different eHealth market sectors has led to the identification of four main barriers to market development. Firstly, market fragmentation and a lack of interoperability prohibits effective cooperation and integration of market actors. Moreover, legal uncertainty and the lack of availability and access to finance restraints stronger innovations in the eHealth market. And finally, the lack of effective procurement presents yet another removable obstacle for a more effectively organised European eHealth market.

In 2008, the EC has published their "Recommendation on Cross-Border Interoperability of EHR Systems" (COM 3282), which aims at the harmonisation of different Electronic-Health-Record (EHR) standards. The aim was to enable coordinated care, by connecting people, systems and services. Therefore, Member States and relevant bodies are provided with basic principles to address the existing challenges in implementing EHR interoperability. Additionally, the EC contributes to the development of a more integrated European eHealth landscape with its large-scale EpSOS project. The aim is to define services for a pan-European electronic patient summary and e-prescription. Within the EpSOS-framework 27 beneficiaries representing 12 EU Member States and 31 companies through IHE-Eur work together in order to overcome legal/organisational interoperability as well as technical and semantic barriers.

The question has been raised, whether the European Commission has the right to act in the field of telemedicine. Alongside the clear legal basis for community action according to EC Treaty Art. 95, 157 and 152 there is also a clear necessity for community action. If the development of new eHealth solutions is taken down to the national level, future interoperability of the developed systems will be highly jeopardised.

Furthermore, the market uptake and deployment of useful and technologically mature applications will be lower when developed below the community level. So, there is a genuine need for action on the EU level on this issue.

Although harmonising efforts have to be taken to the community level, national and regional actors may engage in a variety of actions, like the promotion of the evidence of eHealth benefits or the building of trust among key stakeholders. More investments, i.e. "Private Public Partnership" as well as the preparation and implementation of the legal and regulatory framework are other possible activities.

Further EC studies on eHealth Issues:

- 1) Assessment of financing opportunities available to Member States to support and boost investment in eHealth (2007-08) [empirica]
- 2) Roadmap for application of robotics in medicine and health care (2007-08) [TNO Quality for Life]
- 3) Impact of ICT on Patient Safety and Risk Management – eHealth for Safety (2006-07) [empirica and Symbion]
- 4) Study on legal and regulatory requirements of eHealth (2006-07) [EHMA, Cisco ISBG]
- 5) eHealth impact study (2005-06) [empirica]
- 6) Economic Impact of Interoperable Electronic Health Records and ePrescription in Europe [empirica]
- 7) Requirements and options for actions in RFID in health care (2008-2009) [RAND Europe]
- 8) Legal framework of Interoperable eHealth in Europe (2008-2009) [time.lex]
- 9) Best Practices in Europe on "ICT enabled independent living for elderly" (2007-08) [VDI/VDE Innovation + Technik GmbH, Berlin, Germany]
- 10) Study on exchange of good practices in eHealth (2006-08) [Deloitte and empirica]
- 11) Business models for eHealth (2009-2010) [RAND Europe]
- 12) Methodology to assess Telemedicine Applications (2009-2010) [Norwegian Centre for telemedicine]
- 13) Monitoring eHealth Strategies (2009-2010) [eHealth]
- 14) Personal Health Systems (2009-2010, possible 2-year extension)

IV: Summary of Discussions

The conference was characterised by very useful and lively discussions during the sessions as well as during the breaks. The presentations and discussions gave a good picture of different aspects of the situation in the participating countries and made very clear where those countries stand. They showed different aspects of development of eHealth systems and applications, not only good practices, but also problems, challenges and possible solutions.

Issues discussed included the political and institutional challenges that need to be overcome. Health technologies are more and more available which increase life expectancy and quality of life. However chronic illnesses and multimorbidity play increasingly important roles in the future. Furthermore, citizens today are more and more informed about diagnostic and therapeutic possibilities and thinking more about their own health. Therefore, health care systems are operating in a service-oriented way and the system outcome has to be measured in terms of service quality, care quality, and price. As a consequence, every country faces problems regarding the overall costs of health care. At the same time, health care represents a very important part of the Gross Domestic Product and therefore one of the main issues of society. Meeting upcoming challenges of modern health care systems means the introduction of information and communication technologies.

Information and communication technologies in health care are not only tools for improvement, but indeed much more. They are used to change processes and structures, a fact that leads to the term "eHealth". One should consider that measurement "of the impacts of eHealth on the health care system" means measurement of the patients' life time. How can this fact be explained to politicians that need quick and successful results? Someone pointed out that the costs to invest into eHealth systems are minor to the costs caused by the development of other medical technologies. But while these other developments are accepted by politicians, eHealth is not yet well established as the main instrument for the modernisation of health care systems.

Additionally, the differences and benefits of centralised or decentralised collection of health data were discussed. It became clear that eHealth systems must be organised in a

way as to ensure data privacy and security. Furthermore it was pointed out, that patients have to give their informed consent to provide personal health data to others.

Another point under discussion was the standardisation of data in terms of technical definition, semantics, and context dependence. Interoperability has to be achieved on technical, semantic, organisational and on the level of contractual or legal arrangements.

There is obviously a need for more information and more communication between the different actors and states. The question arose whether it would be possible to translate all existing and relevant documents of national eHealth implementation processes into a working language like English, so that other countries could use all the investments in knowledge on eHealth technologies. It was pointed out that comparison studies, best practices, impact assessment studies, etc. which are financed by the EC are online and available on the EC website.

All participants appreciated the possibility to exchange opinions. The idea came up to use open source instruments like Wiki-Software in order to reach a good and stable communication process. All participating countries expressed their interest to cooperate and continue a SEE Network in the field of eHealth. Furthermore, there is the need for common action that is connected with cross-border aspects or global solutions.

This conference should be the opening event for further coordination. During the conference it became obvious that there is a need for further exchange of experiences about policy approaches, implementation strategies, change management and improvements achieved by the introduction of eHealth strategies in the participating countries and their impact on the structure, the performance and the results of their health care systems. GVG proposed to take up the joint suggestion of all conference participants to continue the networking process.

GVG, Cologne, January 2010



For further information, please contact:

Gesellschaft für Versicherungswissenschaft und -gestaltung e.V.
Martina Thelen (Project Manager)
Hansaring 43
D-50670 Cologne, Germany

Phone: +49 (0)221 - 91 28 67-39

Fax: +49 (0)221 - 91 28 67-59

E-mail: m.thelen@gvg-koeln.de

Web: www.gvg-koeln.de

The SEE eHealth networking conference was co-funded by the European Commission,
DG INFSO.

Legal notice

Neither the GVG nor any person acting on behalf is responsible for the use which might be made of the information contained in the present publication.

The GVG is not responsible for the external web sites referred to in the present publication.

The views expressed in this publication are those of the authors and do not necessarily reflect the official GVG view on the subject.

We would like to express our thanks to all participants of the First SEE eHealth Networking Conference!



Gesellschaft für
Versicherungswissenschaft
und -gestaltung e.V.

