



IBM

# E-health, how to implement

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# **Golden rules for the 21st- Century Health Care System (defined by Institute of Medicine, USA 2001)**

## **Current Approach**

**Care is based primarily on visits**

**Professional autonomy drives variability**

**Professionals control care**

**Information is a record**

**Decision making is based on training  
and experience**

**Do no harm is an individual responsibility**

**Secrecy is necessary**

**The system reacts to needs**

**Cost reduction is sought**

## **New Rule**

**Care is based on continuous healing  
relationships**

**Care is customized according to patient  
needs and values**

**The patient is the source of control**

**Knowledge is shared and information  
flows freely**

**Decision making is evidence-based**

**Safety is system property**

**Transparency is necessary**

**Needs are anticipated**

**Waste is continuously decreased**

## E-health solutions and components

- **continuous treatment of patients by linking patient's clinical information between providers and providing a life time electronic patient record (see Golden rules from Crossing the quality chasm: healthcare in 21st century) while emphasizing transparency over confidentiality,**
- **continuous monitoring of health status of citizens - individual, by groups and profiles**
- **continuous monitoring of health status and continuous treatment of patients with chronic diseases**
- **access to knowledge (libraries, publications, "doctor-to-doctor") - general or case related**
- **continuous transition to target medical practice (clinical guidelines, clinical pathways, evidence based medicine, outcome based medicine)**
- **performance monitoring and benchmarking**
- **E-business, supply chain, E-procurement**
- **Education of patients and citizens**
- **Advanced clinical decision support at the point of care**

## Challenges - funds

- **Similar projects in European Union countries or North America are projected at several billion EURO or US\$.**
- **WE HAVE TO FIND MORE COST EFFECTIVE APPROACH: 5-10 times less and adjusted to size of an average Central European country**

## **Challenges - Structure and staffing of existing national health care agencies and institutions**

- **One of major problems with national projects in health care sector is the size and staffing of Ministry of Health. As example, Ministry of Health in Ireland has about 450 employees. In our region in most countries Ministries of Health employ between 100 and 200 people.**
- **Due to the fact that E-health is never ending process and needs a variety human resources, there should be a permanent organization (see Denmark as example) licensed to deal with all E-health topics in the future.**

## **Challenges - Long term structured strategic plan**

- **One of major obstacles with health care reforms, including E-health, in all countries in the region is that most decisions are politically motivated and survive usually only one election term.**
- **As end result, most of funds spent on reform topics become wasted.**
- **Similar to creation of national and permanent E-health agency, there SHOULD be a professional group of decision makers and designers of any component of health care reform, including E-health.**

## **Challenges - No defined relationship between national healthcare reform and E-health**

- **The problem with many World Bank funded projects as components of health care reform was that there was almost no continuation after the projects have been completed. In some countries, newly elected Minister of Health completely cancelled unfinished projects.**
- **In addition, most of times there is no national master plan, unifying all individual components – this is due to the lack of Project Management experience in government departments in general.**

## Challenges – lack of proper base

- **Health care providers (especially hospitals) lack modern (and unavoidable prerequisite) management of information (IT and paper based) for internal management of information and subsequently the ability to share (access information, provide information, collaborate) its work with other organizations in network**

## Recommended set of activities

- **Define national strategy for E-health – National Program for e-Health, example: “e-Health Foundation Bulgaria”**
- **Define the stakeholders and those responsible and authorized for deployment of E-health infrastructure and components;**
- **Find optimal balance between legislative measures, consensus based decisions and selection of pilot cases supported by believers.**
- **Define national standards for: Core data set, Demographic Data, Health profile, Insurance plans**
- **Define national standards for: Authorization, Authentication, Privacy**
- **Define national standards for: minimal functional and data requirements of IT solutions for providers (hospitals, primary care doctors,...)**

## Recommended set of activities

- **Prepare a master plan with synchronized and coordinated activities between all health care sector organizations and agencies**
- **Define the roles of strategic partners and solution providers**
- **Instead of revising current resource allocation to national institutions such as MOH, health insurance, medical universities and schools, consider the creation of an agency (or institution) with relevant name like Health Center of Excellence**
- **Consider to address the needs of E-health in current standards project, to make sure future work on E-health will not be slowed down because there is no agreement on those standards which are essential for effective functioning of E-health solutions**