

Upgrading to Healthcare 2.0



The state proclaims the unlimited extent of healthcare financed from the public insurance. On the other hand the OECD data show the patients' out-of-pocket payments in 2008 amounted to 25,7 % of the total healthcare expenses in Slovak Republic (EU average was 20 %).

The Ministry of Health of the Slovak Republic (MoH SR) is concerned with aggravating affordability for socially weaker groups of the population, particularly in the area of specialized outpatient healthcare and dentistry. Based on the data of MoH SR, the debt of the healthcare department in 2010 increased by EUR 91.98 million, year-over-year. That denotes the average monthly increase by EUR 7.5 million. And last but not least, the public opinion of the quality of health care is mostly negative.

Without making primarily systems changes in the department, the uncovered wage increases of healthcare professionals and inefficiency in the department will cause this trend, which the department will be unable to tackle on its own, to continue through 2012. Based on the experience of several European countries, one of the measures to have positive impact on the quality of healthcare provided as well as on the efficiency of its provision, is the electrification of healthcare.

The program of healthcare electrification covers several projects running at national level and their common goal is to build the National Healthcare Information System (NHIS). The most significant projects include:

- eSO1 – first phase of Healthcare Electrification
- Unified reference database of healthcare department
- Standards and terminology

The key success factor of health-

care electrification is the future connection of information systems of healthcare providers (IS HcP) to the NHIS, which will enable the healthcare professionals to utilize all benefits arising from the centralized storage of selected patient data to its fullest extent. The state, on the other hand, shall have the possibility to set rules and principles for healthcare provision and maintain efficient control over their abidance. To illustrate the scope, it involves the connection of approx. 13.500 outpatient departments (out of that are 2.331 general practitioners), approximately 2.010 pharmacies, dozens of laboratories and hospitals.

Integration of such a number of healthcare providers into NHIS is, from the point of view of the organization, a very challenging task involving, among others, also modification of dozens of local information systems and retraining of thousands of users.

The solution providers have chosen three basic procedures to support this integration:

1. Make the connection of healthcare providers with NHIS more attractive by providing them with state guaranteed reference data required for their job, such as:
 - National Register of Healthcare Providers
 - National Register of Healthcare Recipients
 - National Pharmaceutical Register, containing all registered and categorized drugs, medical devices and dietetic foods

as well as the expert system

- Code lists and other registers
- Contract relations between healthcare providers and health insurance companies
- This data is currently not available to healthcare providers in a guaranteed form and that causes problems e.g. for healthcare providers in their monthly accounting and invoicing the healthcare services to health insurance companies where insurance companies do not accept certain allocated items due to formal deficiencies (e.g. refusing to reimburse certain drugs to the pharmacy due to non-existing contract between healthcare provider and health insurance company, or invalid contract between the insured entity and health insurance company, or due to outdated drug categorization data, etc.).

2. Support suppliers of IS HcP (information systems of healthcare providers) in incorporating the integration services to NHIS so as to minimize the disruption of user interface for healthcare professionals and thereby minimize the need for their retraining.

3. Under the IS HcP functionality, the gradual transfer to NHIS of all activities not directly related to healthcare provision, such as preparing statistic reports for the National Centre of healthcare Information and for the Public Health Authority; thus decreasing the adminis-

trative burden for doctors and saving time for more efficient diagnostics and treatment of patients.

In the future, the integration of IS HcP and provision of central services of NHIS will enable monitoring the procedures in patient's diagnostics and treatment across all healthcare providers, i.e. from general practitioner, laboratory and imaging tests, specialists examinations, medication, prescription and distribution of drugs at the pharmacy to hospitalization (inpatient care), or possibly surgery to chronicity of a condition or dispensarization. Knowing this path will enable the respective specialists in cooperation with health insurance companies to define standard diagnostic and therapeutic procedures and thus calculate the charges for individual examinations, which are deemed standard procedures in diagnosing and setting up proper treatment.

This will be of great benefit for patients in diagnostics and treatment, since this path will be standardized, i.e. proven and therefore safe. It will prevent them from duplicating useless and often invasive examinations. Another benefit of the IS HcP integration is safer medication treatment based on monitoring the interaction of drugs prescribed by various specialists and their adverse effects on the human body, which can frequently be prevented, at least to some extent.



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