

The Russian National Health Information System – Current State and Future

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Abstract

This poster focuses on points of the Russian National Health Information System (RNHIS) project intended for an efficient information support of the healthcare system management processes and healthcare delivery processes. This poster provides an overview of RNHIS objectives, architecture, and implementation.

Keywords

Health information systems; electronic health records; insurance, health; government programs; Russia.

Introduction

In spite of the long history of development of healthcare information technology (HIT) in the Russian Federation, due to the long period of low financing of healthcare (4% of GDP or less) the current state of HIT is far from excellent. The Russian Ministry of Healthcare had launched the development of the Russian National Information System in Healthcare (RNHIS) to improve this situation drastically, and in 2011 the Conceptual Framework of the Development of RNHIS was approved.

Methods

RNHIS shall be composed from the following components:

- Common federal components provide common system services, data storages, directory of users and other support for application components
- National Registry of Insured (NRI) provides identification of the insured persons and their health insurance
- Application components (on two hierarchical levels: federal and regional):
 - Transactional systems,
 - Management systems,
 - Information retrieval and consumer health systems
- National Healthcare Service Bus and Regional healthcare service buses shall implement the interaction between application components and between application and common federal components
- Regional components for intercommunications with federal components.

Results

The National Register of Insureds

The Federal Mandatory Health Insurance Fund manages development and maintenance of the most successful part of RNHIS – National Register of Insureds (NRI). It has been in operation from 2010. NRI has a distributed nature: demographics of insured persons are captured by the health insurance companies (HIC). These data are mirrored to the Regional Registries of Insureds (RRI). Each RRI reports pseudonymized data to the Central Register of Insured (CRI).

CRI renders several on-line services to the National Healthcare Service Bus. Federal transactional and management systems use these services to discover the current HIC responsible for an insured person.

Other federal components

The Ministry of Healthcare manages development and maintenance of common federal components and federal application components. The most successful component is the Registry of physicians and medical personnel. It has been being in operation for several years. At the end of 2012, there was implemented a pilot project of online appointment scheduling using the Unified Portal of Governmental Services. Other components implementations were still in preliminary stages.

Regional components

During 2012, the Ministry of Health issued several guidelines to the regional health authorities. Having short timeframe, most of the regions failed to meet these requirements. Only several regions had enough political power to promote their own programmes.

Conclusion

It seems that the several advanced and skilled regions (Moscow, the Republic of Bashkortostan, etc.) will remain the real driving force of HIT in Russia during next 2-3 years. The intention to lead this activity has proved beyond the capability of the Ministry of Health.

Looking forward, a critical aspect of RNHIS future will be the degree to which the Ministry of Health will ensure buy-in from all stakeholders right the way across the Russian healthcare. This will be time-consuming and will require a substantial revision of RNHIS architecture and the role of the Ministry of Health in this project.