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E-HEALTH – CHALLENGE OR NEED

Context and importance of the issue

The health sector has always relied on technologies. According to WHO (2004), they form the backbone of the services to prevent, diagnose, and treat illness and disease. ICTs are only one category of a wide range of technologies that are already in use. With the right policies, organization, resources and institutions, ICTs can be a powerful tool in the hands of those who work to improve health.

ICT supports data collection and helps in turning them into information for improving the policies. They are enablers of developing strong health evidence-based policy and their implementation. They are a strong tool for strengthening health systems and provide health care focused on patients. The application of ICT in health systems and health can increase their efficiency, to impact on improving the health and quality of life and allow inclusion of innovations that lead to better health.

Today, worldwide, there has been improvement of health, often as a direct result of ICT. In-

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novations in e-health, such as electronic health records, computer systems for issuing prescriptions and clinical databases have transformed the health care system, and bringing even greater promise for the future. ICTs support clinical treatment, provides a platform for publishing, disseminating health alerts with preventive purposes and provides support for administrative functions.

E-health affects the health care. Health systems are part of broader systems, such as welfare and other socially useful systems. Therefore, the evolutions in society, such as the development of information and telecommunication technology and ICT system rules, affect and will continue to affect the health systems.

With the increase in cross-border activities in health, especially in systems like that of the European Union and others (using health care in a country that has concluded a bilateral agreement on health or social care), patients are increasingly seeking healthcare in other countries, for various reasons. Doctors are increasingly demanding various telematic information from their colleagues, more than previously. Doctors, hospitals and laboratories are increasingly using ICT and computer applications to communicate with health information for treatment and other purposes.

Today, ICT and the introduction of IHIS is a real need for states, institutions, doctors and patients, and to overcome the challenges faced by health systems.

In Macedonia, cannot be talked about a system of health information and communication technologies, but rather for individual systems of some participants in the system. The analysis of existing solutions shows significant differences from one hospital to another, but the general tendency is a total lack of ICT and lack of an integrated health information system (IHIS). It is also evident that the information systems that the institutions have, are designed in a way that so that it is a challenge to ensure data exchange with other participants in the system.

In Macedonia, the system "My Appointment" was developed for the purposes of collection and exchange of data and development of 30 new e-services available for insured persons.

This novelty bring benefits and challenges of practical and legal nature that needs to be investigated and addressed as appropriate, so that the new, Macedonian e-health continue to develop in the right direction and to be able to provide the results that are expected, without violating human rights.

Besides, Macedonia is part of the European region and the world. Also, the country is aspiring to become EU Member State. Therefore, monitor-

ing of EU legislation in this area is an important guide and corrector of national efforts.

Currently, in Macedonia there is no specific legislation that regulates the issue of e-health. The general legislative framework regulating the issue is consisted of several laws such as the Health Care Law, the Law on Personal Data Protection and the Law on Protection of Patients' Rights Act, the Health Insurance Act and the Law on Health Records.

Nacional Health policies

Macedonian policy in the field of eHealth is consisted of several elements, including:

1. Completing the system of the Health Insurance Fund;
2. Implementation of hospital information systems in selected hospitals;
3. Development of unified registries (unified coding systems);
4. Introducing the ICT in primary care in order to provide electronic reporting;
5. Introducing of the Electronic Health Card;
6. Diagnostic Related Groups; and
7. Electronic Health Records.

Meeting these elements depends on the intensity of the implementation of the Strategy for the Development of Macedonian Integrated Health Information System, legal requirements, ICT and investment conditions, safety and ethics of information systems (access, encryption, etc.), privacy and infrastructure, and architecture of the health information system.

Today, in Macedonia, almost fully implemented are **ICTs in primary care in order to provide electronic reporting, electronic health card and diagnostic related groups**. The other elements are still in a process of implementation. Until all elements of the Strategy are implemented and until their functional connectivity is provided, we cannot talk about functional health information system.

Recommendations for new policy and implementation

- Harmonization of regulations and creating a harmonized legal framework for the regulation of e-health.
- Improving the integration of the three levels of care (primary, secondary and tertiary) in order to promote the organization of the health system and saving time and money, both, for the patient and the system, as well as better communication and better sharing of data, which will

lead to better informed and unified health system.

- Improving the system for electronic health cards, to reduce the load on the administration of the health system, health insurance and patient.
- Improving the administration that works with e-health, to strengthen the system and allow better access to health for everyone.
- Improving the security of the system for collecting and sharing data.
- Improving the overall architecture of the health system at all levels and in all areas, to better implement the goals and initiatives outlined in the Strategy for the Development of Macedonian Integrated Health Information System.
- Strengthening intersectoral collaboration and exchange of information
- Provide functional connectivity of the elements for functional health information system.

Executive summary

The introduction of information and communication technologies (ICT) in health care and the creation of the Integrated Health Information System (IHIS) contributes to building a better health system, better communication and exchange of information at all levels of care, reduces costs and saves time, for both, patients and institutions and promote equality and social justice. In this way, the introduction of ICT and the creation of specifications influence on improving health of individuals and the population as a whole.

This important endeavor necessarily requires special attention in order to achieve the expected goals of ICT and IHIS. The thoughtlessness of the strategies and incomplete implementation of these systems can lead to serious issues, such as, invasion of privacy through unauthorized sharing of personal information and data about the health condition of the population, the lack of unified legal norms i.e. legal framework could lead to increased use of lawsuits and complaints against doctors and institutions, low level of integration of the three levels of health care can lead to increased public spending and wasted time that will result with dissatisfied population, will shift the focus from the individual and the protection of his rights to health, privacy, protection of personal data, and the responsible use of public funds.

For these reasons, it is necessary to develop and apply responsible and well thought-out strategy in the area, which implies a unified legal framework, integrating the three levels of the health system, advanced and well-structured communication and responsible framework for the sharing of information in the system, enhanced infrastructure of the institutions and architecture of the health information system, with a clear framework for responsibility and authority.

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