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eGov Project

# e-Health Registers Implementation Status Report



**April 2009**

Submitted to: USAID/Macedonia  
Submitted by: eGov Project

This publication was produced by Internews Network for review by the United States Agency for International Development. The contents do not necessarily reflect the views of USAID or the United States Government.

## GENERAL INFORMATION

The five-year \$4,950,191 eGov Project was awarded by USAID/Macedonia on 14 September 2004 with the signing of Associate Cooperative Agreement No. 165-A-00-04-00102-00 to Internews Network under the dot-GOV Leader with Associates Award (GDG-A-00-01-00009-00).

The eGov Project works closely with the Government of Macedonia, (GOM) and is located in Skopje, the Republic of Macedonia. The key staff of the project is: Gordana Toseva, Chief of Party and Elena Stamoska, Deputy Chief of Party.

The eGov Project is helping increase the efficiency and transparency of public sector management by improving the administrative capacity to implement secure e-government solutions and communication within the GOM and between the GOM and Macedonian businesses and citizens. The eGov Project addresses the USAID-Macedonia SO 1.3 Accelerated Development of the Private Sector and IR 1.3.3 Enabling Environment for Investment Improved.

[www.eGov.org.mk](http://www.eGov.org.mk)

## Introduction

During the spring 2006, the USAID funded eGov Project was approached by the Minister of Health and asked to undertake the development of an electronic system by which the Ministry of Health and the Health Fund in particular would be able to improve the monitoring of the consumption of drugs and the prescription of EBM (Evidence Based Medicine). The Ministry claimed that an unnecessary amount of expensive drugs were being prescribed by some doctors for personal gains and to the extent that it caused an undue burden on the State budget. The requested electronic system for monitoring would prevent a further misuse of prescribing expensive drugs.

The Minister emphasised that the requested system would be very beneficial in reducing corruption within the health sector and increase transparency regarding the spending of public funds.

The eGov Project explored at that time the possibility to create a pilot project that would establish an electronically organised database containing the medical history of some selected individuals. However, the eGov Project was encouraged by the USAID Mission Director at that time to focus on the request by the Minister.

The eGov Project thus established a working group consisting of experts from the Ministry and from the Health Fund to assist the eGov Project team to draft a system description that would identify the system functionalities and all necessary system modules to be developed.

During the work problems were caused by the working group that frequently requested various modifications in system functionalities that initially had been agreed to. Nevertheless, the eGov Project in the end requested and received a written confirmation from the working group covering all functionalities of the system and consequently a secure, web based and modular system could be developed consisting of six separate modules: Registers, Registration, Import of data from the Chamber of Doctors, Issuing of identification numbers, Data analyses and Reporting. A Public web site was also created for the system. The software was installed and hosted on a central server within the Ministry of Health.

In addition the eGov Project was requested by the Health Fund to procure one thermal printer for printing bar code labels plus some additional equipment to that printer. After having consulted the USAID Mission the requested printer and equipment were purchased.

The application was formally launched by the Minister of Health at a public event on 28<sup>th</sup> July, 2006 at which the entire system was demonstrated including the printing of bar-codes. The system now covered also issues such as application forms for registration of new drugs.

## De facto usage of the system

Due to various reasons outside the control of the eGov Project the concept of the application in terms of its usage has been radically changed with, as a result, only partial usage of the modules that were developed and integrated into the application. It should be stressed that the present restricted usage of the system is not due to any technical problems or any other difficulties in using the system but is based entirely on internal decisions by the employees within the Ministry of Health.

Presently the application is primarily used as an efficient tool for the registration process of drugs. While creating the database, the previously incoherent databases for health care institutions, domestic drug producers, wholesale drug distributors, pharmacies and doctors in the Republic of Macedonia were also properly updated with the assistance of the electronic system. Corresponding accurate databases that didn't exist previously were thus created as a direct effect of the e-Health application. Following the present usage of the system, the name of the application has changed to *e-Health Registers*.

The registration process is very simple by completing a predefined drug registration form which is integrated in the system. After the registration form has been completed, the system automatically saves the information related to that specific drug in the respective database and automatically generates *Decision for the registered drug* which then is delivered to the organization that has requested the registration.

Beside the simple registration process of new drugs, the system is also used for generating different types of reports related to the registered drugs in the country. These reports are widely used by the management of the health sector in the Republic of Macedonia. The

system also offers an advanced module for generating different statistical reports, even though this part of the system is not extensively used.

The management of the Ministry of Health has stated that, regardless of the changed concept of the application, the e-Health Registers application is of significant importance for the work of the Ministry of Health, especially for the work of the Drugs Bureau and the Health Insurance Fund, since the system is included in all strategic projects and future activities of the Ministry. The Ministry has stated that the application represents a baseline for strategically important health information and is of crucial importance for the implementation of a fully Integrated Health Information System.

Regardless of the fact that the software also has separate modules for online submission of requests for registration of new drugs, domestic drug producers, pharmacies, wholesale drug distributors and doctors, as of today these modules may not be used at all. The only thing that needs to be done to make these modules operational is to register a domain for the application and make it accessible through the Internet. The Drugs Bureau has expressed their readiness to start using these modules in a near future.

## Opinions expressed by the Drugs Bureau

The Drugs Bureau is an institution reporting to the Ministry of Health. It has 18 employees working on maintaining the registers of drugs, wholesale drug distributors, domestic drug producers and pharmacies. They are also responsible for the registration process of the drugs and the above mentioned organizations. One of the main responsibilities of the Drugs Bureau is to create and maintain an accurate database of all drugs in the country.

***Employees: 18***

***Number of drugs annually registered through the system: avg. 400***

***Number of Decisions for registered drugs issued through the system: avg. 900***

The eGov Project staff has interviewed the staff within the Drugs Bureau, presently being the only user of the system, regarding their experience up to date of the system.

- √ In general the employees within the Drugs Bureau expressed high satisfaction with the functionalities used within the system;
- √ The accuracy of the data consisted in the electronic registers has increased due to the fact that the application contains up-to-date status on each one of the drug registrations;
- √ The application has helped improve efficiency although the interviewed staff members were not prepared to give any specifics on time savings or regarding the reduction of human mistakes.
- √ As a result of this application/project the Bureau has developed and implemented other web applications and intends to further upgrade the existing ones.

The Director of the Drugs Bureau stressed that the system is used by some but not by all of the employees engaged in registering drugs. The Director confirmed that the reports received from the employees that use the e-Health application are by far more detailed and comprehensive compared to the reports received by the employees which are not using the system.

The Director also confirmed that the Drugs Bureau will use the source code of the e-Health application to further upgrade the application.

## Conclusions

Importantly, it has been clearly stated by the Drugs Bureau that the e-Health Registers system has become a very useful tool for their daily operation by increasing both accuracy and efficiency. Thanks to the system, the Ministry of Health, the Drugs Bureau and the Health Insurance Fund now all can benefit from accurate databases within the respective institutions.

However, it is regrettable that the relevant institutions have not taken full benefit of the developed e-Health application but so far only partially use the system. The situation emphasizes the reluctance among many staff members in public institutions to embrace new technology. The eGov Project has several times noted such reluctance, a reluctance that could be based on a variety of personal considerations among the relevant staff. But it should be stressed that the eGov Project has also been very successful in finding remedies to the problem and thus safeguarded a proper implementation of most of its developed applications. In general it has proven necessary to be able to convince the relevant staff members of the benefit for them of using the system. Only orders from superiors that a system should be used rarely functions on its own.

Sometimes it seems necessary to accept a step by step approach and the e-Health application seems to be a good example thereof. The eGov Project has received clear indications that the present usage of the system has initiated a further usage of ICT within the Ministry of Health and the Health Fund, which is an achievement fully in line with the objectives of the eGov Project. It is foreseen that within a reasonable future additional modules of the developed system will also be taken into operation. It is clear that the responsibility for the further implementation of the system must rest within the relevant institutions and cannot be a responsibility of the eGov Project.