



# Developing The Health Care in Jordan

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## Abstract

In spite of there is many ideas talked about developing health care but nothing been applied until now, in fact there is a very little real steps is being working on. This paper describes one of the steps that depend on a software that organize and Facilitates the procedures followed by the patient from the moment he entered the hospital until he left it. another important thing we look for in this software is to save and keep all the patient record and Compilation it from various departments and even from different hospitals from all sector military, public, private hospital and maybe for clinics. As a result, we Increase the effectiveness of medical management to achieve a radical development in the health care provided to citizens and their access to the best international standards as well as economic efficiency.

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## Introduction:

From the speech of His Majesty King Abdullah II Bin Al Hussein "Improving the quality of life of the citizen requires attention to health care, which is the right of every citizen, proper ManReassuring about his health and the health of his children and his family is a human who is able to work and production." Jordan has one of the best health systems in the world based on the health outcomes of its citizens. However, maintaining or improving the health outcomes will require a fundamental change in approach to the way health care is delivered in this country.

The Jordanian health system is straining to deal with increasing the population and cost and demand pressures and a shortage of skilled health care workers. Given this reality, we need to move to a system where every interaction between patient and care providers achieves maximum impact on health outcomes and where scarce financial and human resources are deployed as effectively as possible. Most of all we must draw upon the latent capacity in the system represented by consumers themselves playing a more active role in the protection and management of their health outcomes.

This change will need a Radical change in the way information is accessed and shared and used across the health sector. We have to move away from a depending on tools such as pen, paper and human memory to an environment where patient , care providers and health care managers can reliably and securely access and share health information in real time across geographic and health sector boundaries. The only way this can be done is through the implementation of the computer software.

The computer software vista is a combined use of electronic communication and information technology in the health sector. In more practical terms, vista ensure that the right health information is provided to the right person at the right place and time in a secure, electronic form for the purpose of optimizing the quality and efficiency of health care delivery. Vista should be viewed as both the essential infrastructure helping information exchange between all participants' health care system and as driver to improved health outcomes for all patients.



## **Background**

The idea started in early 2009 to work on the use of the latest technology and the application of the best health concepts and practices to improve the quality of health services in Jordan and increase efficiency.

Generalization of Applying Computerization of the health sector at the national level aims to increase the effectiveness of medical management and achieve a radical development in the health care provided to citizens and taking it to the best international standards as well as economic efficiency and improve workflow procedures, which will be reflected positively on the patient experience in a hospital or health center. Through the creation of an electronic health file for each citizen and facilitate the access of users of the system to any medical center using the national number, by linking the Civil Status Department database and system data, where the file contains procedural and surgical comprehensive reports and current medications and allergies and medical history and surgical observations. Blog when you visit the hospital or clinic.

In Our strategy in applying a program to computerize the public health sector in Jordan we depend on a software "Vista" system that developed and used in hospitals and clinics of American military retirees Society of the United States of America.

## **Subject:**

Vista Imaging is an Image Management system that most widely used in routine healthcare use, and is used to manage many different varieties of images associated with a patient's medical record. The Vista system is the largest and most successful integrated systems of health care, which is an open source system, which means the ability to see the source code of the program and the possibility of development and modernization. The design and development of a system "Vista" specifically for medical purposes to improve health care and health-level standard and it appears through international standards optimal medical procedures contained in the system.

Vista systems applied according to the World Standards. The application process includes analysis of hospitals and health center's needs, and the development of the plan of the current work and the design of the course of future action plans and integrating the work of medical equipment and training of staff working in hospitals and health centers in addition to providing technical consulting.

## **Application of program includes the following:**

1. Installation of computers, servers and networks for operating a computer network devices using the latest technologies and applications for wired and wireless network and installation a management and protection of network systems using Cisco devices and processing internal and external networks to connect the Apply program sites by connecting secure government network and the network of national information and the Department of Civil Status and Passports.
2. Application software (Vista) to computerize medical records that include patient information management system (registration, appointments, input) and computerized patient record system,



laboratory system, radiology and imaging system, pharmacy system and some specialized systems such as blood bank systems and Nutrition .

3. Applying (Vista Imaging) / (PACS), which provides showing X-rays electronically on computer screens with high quality and linked with the computerized patient record system service.

4. Training of hospitals and health centers staff doctors and nurses on working on the system of in all wards on how to use the "vista" program.

5. Organizing awareness programs to the local community about the benefits of the application of a "vista" program in hospitals and health centers.

6. Doing the Infrastructure for technical support center that works all the time within the highest standards and to link the center through a private channel communication networks within the Jordanian telecommunications companies Centre.

7. Establishing an information centers and sophisticated data centers and disaster recovery, and use the latest equipment and devices and technology to cope with the size of the program, where they are providing servers and storage devices and computers for users of the program.

8. Supplying Sites of various medical and laboratory devices equipped and linked to "vista" software systems, such as providing sites with (Barcode) devices and pharmaceutical packaging, and to follow up providing medications to inpatients in hospitals.

Program consists of several subsystems most important follows:

- Computerized patient record system
- Patient scheduling system
- Surgery System
- Surgical operation system
- Laboratory system
- Pharmacy System
- Radiology Information System
- Vista imaging system

Benefits of the program:

- Create and sustain a healthy patient record which can provide faster and guarantee treatment in addition to the benefits that will improve the health care level, such as an alerting doctor to deal better with cases of chronic diseases, early detection of the disease therefore accelerating the stages of healing, which contributes to the reduction in death rates.
- Reduce costs in health institutions, and raise the level of services provided through:
  - Control of repeating medication dispensing



- Optimal use of resources by saving and storing files and X-rays electronically.
- Reduce redundancy laboratory tests.
- Cost reductions resulting from the acceptance of the growing numbers of patients inside the hospital and turn it into an outpatient.
- Reduce the burden of patients through electronic procedures such as the computerization of appointments, pharmacy, and radiology and laboratory system.
- The program will contribute to the creation of a comprehensive database of patients to support research and scientific studies by providing the necessary statistics to the concerned authorities to support the decision-making process and the development of necessary remedial policies for the advancement of health care in Jordan.
- The program let doctors to check from electronic medical records for their patients, using the national numbers are, and those records Contains:
  - A surgical Comprehensive reports
  - Current medications and allergies
  - Medical and surgical history.
  - The notes when you visit a hospital or clinic for treatment.
  - Access to the results of laboratory and X-rays electronically.
- Improve the quality of health services, which enhances the Jordan position as a destination for medical tourism in the region, which contributes to the increase of medical tourism revenues.
- The program will allow at the national level hundreds of jobs for qualified staff in Jordan in the fields of medicine and information technology due to software excellence.
- Develop the infrastructure networks and computers to in hospitals where applicable to vista program.

### Case of study and Results

In our study we referred to an opinion roll done in prince Hamza hospital shows how much stuff and patient like the new system.

We make this in deferent ward as follow.

Department	Stuff	Patient
Medical record	91%	65%
Laboratory	79%	85%
Radiology	85%	80%
Pharmacy	71%	85%
Operation room	69%	92%



## So we found

Firstly we will discuss the stuff result which shows that technicians face some difficulties in using the new system which is expected because the system use dose software in laboratory, radiology, and pharmacy which is not easy and not familiar because they have to Typing the orders not selecting from different choices .and some of them don't like changes and prefer to stay as he accustomed.

In medical records stuff was very Receptive and in the beginning they will need more time than manual procedure.

In operation room they think that it is Easier for them to user hand writing but we are sure that with time they will notice the difference and like the new system

In the other hand most of the patient was very satisfy for the new system except that they feel much better if the take their medical report and keep it in their home.

## Conclusions:

In Jordan, we are proud of our health service which is unique in Arab and global level that we offer, which resulted from the evolution of the level of education in our schools and universities, where Jordanian doctor came to be required in all countries because it is a source of confidence.

Because we always pursue for excellence and to develop ourselves, came the royal directives of the need to computerize the health sector, where work began in 2009 and has been tried in Prince Hamzah Hospital .where the idea got appreciated, acceptance and success with the medical staff and patients.

With a need for more time to be adapted, get used so everyone will be familiar with this new system.

So we must be patient until the system is applicable to all medical centers, and convinced people to deal with this new system.

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