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Editorial

Automation of the Healthcare System in Iraq

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ABSTRACT

In the last few years, following the relative stability of the political, economic, and security environments, Iraq has embarked on a transformation towards an ambitious program of automation across various sectors. However, this automation program faces numerous challenges, including significant investments in technology and training, addressing social impacts, and combating widespread illiteracy

In the last few years, following the relative stability of the political, economic, and security environments, Iraq has embarked on a transformation towards an ambitious program of automation across various sectors. However, this automation program faces numerous challenges, including significant investments in technology and training, addressing social impacts, and combating widespread illiteracy. According to UNESCO, literacy is defined beyond its conventional concept as a set of reading, writing, and counting skills. Instead, it is now understood as a means of identification, understanding, interpretation, creation, and communication in an increasingly digital, text-mediated, information-rich, and fast-changing world (1). Furthermore, for such a transformation to succeed, Iraq must develop regulatory and legal frameworks to support and ensure the safe and equitable deployment and handling of private data stored in electronic systems.

One important sector directly impacting people's lives is the healthcare system. Fifty years ago (1970s), Iraq's healthcare system was one of the best in the Middle East. Unfortunately, it has become one of the most dilapidated, ranking 167 out of 195 countries worldwide according to the Global Healthcare Security Index (GHS), 2019, and near the bottom in the Middle East and North Africa (MENA) region at 18 out of 19 countries (2, 3). This deterioration began in the 1980s with the onset of the eight-year war with Iran, followed by the invasion of Kuwait, a 13-year embargo, and subsequent occupation and political instability (4).

Two crucial aspects of healthcare system automation are the Hospital Intercom System and the Inter-hospital communication systems.

1. **The Hospital Intercom System**: This system, often called the hospital communication system, helps to facilitate internal communication within the hospital among medical staff and departments, including doctors, nurses, laboratory and radiology departments, local blood banks, pharmacies, and administrative personnel. This system enables the exchange of information between

different departments, provides easy-to-reach information, supports rapid decision-making, allows for timely consultations, monitors and follows up on patients, and improves the overall efficiency of hospital operations. It also facilitates authorized personnel to track statistics and check and coordinate hospital resources, especially during emergencies and health crises like epidemics and natural disasters.

2. **Inter-hospital Communication System**: This system connects healthcare providers at different levels, including primary healthcare centers, specialized healthcare centers, small hospitals, and large hospitals, facilitating easy communication, information sharing, and data exchange nationwide. In this system, every Iraqi should have a digital national health ID card, allowing authorized medical personnel to access the patient's comprehensive medical history, including previous medical consultations, admissions, chronic diseases, chronic use of medications, and previous investigations, among other details.

The rationales and objectives for adopting automation in Iraq's healthcare system are numerous, all aimed at improving the quality of medical services for Iraqi citizens. Examples of these rationales and objectives include improved availability of medical services even to underserved areas; eliminating manual work such as patient registration, scheduling appointments, billing, and data recording which will reduce human errors, save time, and reduce cost; providing immediate, accurate, and secure access to patient's medical records, appointment reminders, educational resources, and interactive self-management tools to ensure patient engagement which will lead to better healthcare organizations; and ensuring adherence to healthcare service standards, laws, and data protection requirements, supporting regulatory compliance.

Automating the Iraqi healthcare system will improve hospital governance by lowering non-compliance risk and guaranteeing correct reporting, documentation, and protocol adherence. It will play a crucial role in overall data management by making data collection, analysis, and administration easier. Decision-makers will be better equipped to recognize patterns, monitor public health indicators, forecast epidemics, and apply evidence-based procedures. Additionally, it will optimize resources—people, tools, and supplies—lowering expenses, boosting worker productivity, improving the allocation of healthcare resources, and improving overall health strategy (4).

Keeping in mind the Chinese proverb that "a thousand miles begin with a single step," we think it is time to begin automating Iraq's healthcare system and make investments in the Intercom and Inter-Hospital Communication Systems to enhance the quality of healthcare services and bridge or reduce the gap with other countries.

Conflict of Interest

Authors declare no conflict of interest.

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