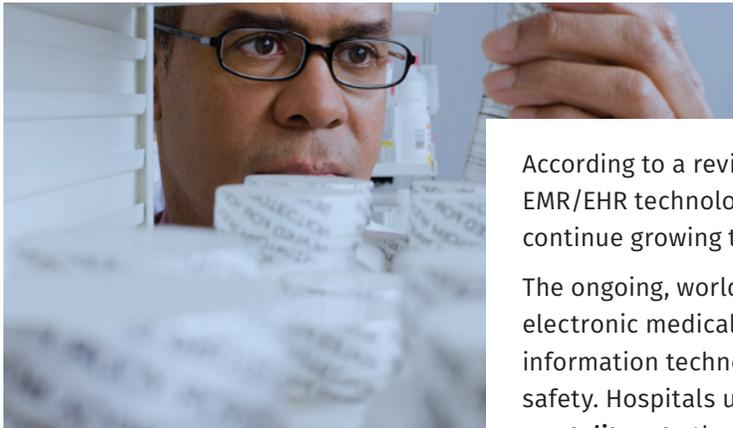


Clinical Drug Information

EHRs and Healthcare Information Technology:

The Solution for Smarter Decisions and Better Care in the Middle East



Healthcare providers in the Middle East were on pace to spend \$2.8 billion on healthcare IT. Are you ready?

According to a review of recent studies, global healthcare spending on EMR/EHR technology is expected to top **\$24.8 billion** USD in 2017 and continue growing to over \$29 billion by 2020.

The ongoing, worldwide increases in electronic health record (EHR) and electronic medical record (EMR) adoption and spending on healthcare information technology is spurred primarily by commitment to patient safety. Hospitals using EHR/EMR systems have a **3 to 4 percent lower mortality rate** than those that don't, as EHRs help reduce prescription entry errors and provide access to clinical decision support in the workflow and medication error alerts.

There's financial incentive to expand healthcare technology as well. The average doctor spends 8 hours a week on paperwork. Studies estimate that during the first 15 years of implementation, EHR/EMR could **save around \$42 billion** USD each year in the costs of paper charting, in both materials and staff hours.ⁱ

RISE OF EMRs IN THE MIDDLE EAST

The Middle East has embraced healthcare technology advances in the last decade. According to a 2014 report by leading information technology research firm Gartner, Inc., healthcare providers in the Middle East and Africa were on pace to spend \$2.8 billion USD on healthcare IT products and services that year, including a 10 percent increase in spending on healthcare software.

Gartner attributed this healthcare technology expansion to continued growth within the Middle East's largest economies, like the Kingdom of Saudi Arabia and the United Arab Emirates. Economic growth has enabled private healthcare institutions and government ministries to drive higher adoption of electronic/ digital healthcare, including EHR/EMR systems.ⁱⁱ

EHR implementation has helped many health systems optimize pharmacy and medication administration. Some hospitals have seen decreases in average length of a patient's stay thanks to automated care reminders generated by EHRs.

Dr. Abdulrazaq S. Al-Jazairi, Deputy Director of the Pharmaceutical Care Division and head of Department of Medical/Critical Care Pharmacy at King Faisal Specialist Hospital & Research Centre in Riyadh, Saudi Arabia, has seen this growth firsthand. Since launching its initial inpatient EHR in the early 2000s, Dr. Al-Jazairi reports his health system's processes are now around 90 percent paperless, leading to a noticeable increase in efficiency.

"It's not a helpful change, it's a dream come true," Al-Jazairi says. From his point of view, as a clinical pharmacist with over a decade's experience on the Pharmacy & Therapeutics committee responsible for determining the hospital's approved drug list (formulary), one of the greatest advantages to healthcare information technology is the ability to add or remove dosage forms and restrictions in his hospital's formulary database and have the information instantaneously available to all clinicians. "Many (committee chairs) came to conclusion that our guidelines were useless because no one was reading them. This (EHR-integrated application) brought the guidelines alive again. Now, in last four years, it has been one of the most important changes."

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Other benefits include:

- **Tracking** orders and actions so everyone at the hospital is "in the loop."
- **Paperless** processing and ordering is easier, more efficient, and enables more effective storage. "Updating the care sets and order papers was hard," recalls Al-Jazairi "Now, one click, and it's up and running."
- **Accessibility:** On-call clinicians can instantly check up-to-date patient information from home.

EHR use in Saudi Arabia "is peaking; it has not plateaued yet," Dr. Al-Jazairi says. "If you had asked me the same question 10 years ago, I would have said people are not receptive. Today, people are receptive."

WHAT TECHNOLOGY IS MIDDLE EAST HEALTHCARE MISSING?

In 2015, KLAS reported several challenges to EHR implementation still facing Middle Eastern hospitals – whether private institutions selecting their own EHR vendor or public hospitals using systems designated by the Ministry of Health.ⁱⁱⁱ They included:

- **Globalization** – The need to customize healthcare software and information for the region to better suit Middle Eastern healthcare practice.
- **Interoperability** – The need to improve Middle Eastern healthcare providers' ability to access information from other organizations and from other facilities within their own organization (example: communication between ambulatory and acute care).



Expanded technology also brings the need for greater security, privacy measures, computing power, and information storage. It also demands health systems find the most efficient ways to implement new solutions to achieve faster adoption by clinical staff, better results in patient outcomes, and easier ability to continue to grow and upgrade applications and information.

An essential component of a successful EHR is **Clinical Decision Support (CDS)**, including automated safety screenings and notifications to help alert clinicians to potential errors or contraindications before they write orders and administer treatments. While CDS is an important safety check, Dr. Al-Jazairi notes that a “culture change is needed” to make it more impactful on patient safety.

The issue is “**alert fatigue**,” the negative perception clinicians develop of EHR alerts because there are simply too many alerts being generated. Clinicians get into the habit of overriding most alerts without really examining them, increasing the likelihood they will miss a vital warning. “It’s one of the major challenges because the (alert) overriding rate is very high,” Dr. Al-Jazairi explains. “Alerts get overridden by clinicians because they don’t believe it’s accurate. It’s the biggest problem with CDS. You need to change the culture in the organization.”

Dr. Al-Jazairi would like to see higher levels of precision and customization in CDS systems to generate more meaningful alerts and reduce alert fatigue. “Alerts are being overridden, because these tools are not yet perfect,” he says. “With a little investment, I see those tools becoming smarter. It’s just a matter of time.”

LOOKING AHEAD

What will the future of healthcare technology look like for the Middle East?

Experts expect to see some of the following trends:

- Technological advancements to support and help professionals better understand clinical decision making
- Global health information advancements allowing expansion into developing countries
- Using Big Data to uncover problematic trends and business opportunities
- Greater use of smartphones and tablets to quickly reach key healthcare information
- More patient engagement to increase health literacy and empower patients
- More automation – including the possibility of robotic systems (like pharmacy dispensing) linking to EHRs and CDS systems. “When all systems speak the same language, it will be great in the future,” Dr. Al-Jazairi says.

The Middle East is quickly evolving along with healthcare technology, and hospitals need trusted partners to help them succeed. Healthcare information technology vendors that are committed to global best practices, scientific research, implementation support, and solution innovation can help a health system reach its EHR goals for improved efficiency, cost savings, and enhanced patient care.

For more information on solutions for the Middle East, visit:

www.wolterskluwerCDI.com/mideast

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ⁱ <http://blog.soliant.com/healthcare-it/ehremr-facts-and-amazing-statistics/>

ⁱⁱ <http://www.informationdynamix.com/healthcare-it-middle-east/>

ⁱⁱⁱ <http://klasresearch.com/resources/klas-blog/klas-blog/2015/10/14/middle-east-successes-challenges-and-trends>