EHR in India

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On opposite sides of the globe, India and the US spell the future of health information management the same: EHR.

The numbers are staggering and hard to absorb by US standards—the Indian healthcare system delivers care to a population of more than 1 billion people. With accelerating demand and a proliferation of paper records, Indian healthcare organizations have their eyes on a prize familiar to their US counterparts. In many ways, India's transition to the electronic health record (EHR) is the US's journey writ larger, and each country can learn from the other. As interviews with health professionals at three Indian facilities illustrate, though the healthcare environment differs, the benefits, challenges, short-term forecast, and key roles of physicians and HIM professionals share a common language.

Growing Demand, Rapid Growth

Much healthcare is paid for privately in India, and an improving standard of living is dramatically increasing demand for services. By some estimates, India's middle class has reached 250 million, and its dramatic growth is expected to continue.[1] The number of people able to seek basic health services has also grown. The share of India's population living below the poverty line decreased from 55 percent in 1975 to 26 percent in 2000.[2]

Demand is also driven by a corresponding increase in health awareness as India's population encounters chronic conditions such as coronary disease and diabetes found in more developed nations. Both consumers and providers are placing greater emphasis on quality of care. The result is a transformation in India's healthcare industry, whose infrastructure was beset by manpower shortages, aged facilities, and under funding.

India today has more than 15,400 hospitals, up from 6,804 in 1982.[3] The country's urban population enjoys a growing number of choices for healthcare services. This construction boom stands in marked contrast to the US, where the number of hospitals registered with the American Hospital Association decreased from approximately 6,900 to fewer than 5,800 during the same period.[4, 5] Many of India's new hospitals were envisioned as paperless environments from the first architectural sketches. The country's experience with these facilities should be of interest to the US, where retrofitting older buildings poses particular and sometimes limiting challenges to advancing health information technology. New US physicians practices, many of which now include EHR systems into their practice planning, may also benefit from observing India's experiences.

Hybrid Realities

Because of the large patient population and the proliferation of medical records, most Indian hospitals are being strangled by a paper octopus. Battling this octopus has made medical record departments an increasingly essential part of every hospital.

India's overriding principle of health records, according to one professional, is "people forget, records remember."[6] However, there are no standards or regulations in India for their creation, release, and retention. In the absence of such regulations, the hospital executives interviewed reported that most "good" hospitals have modeled their health record systems on practices followed in the Western world, a valuable sharing of HIM best practices across borders.

At Nair Hospital, a 1,300-bed, public, multispecialty tertiary care facility in Mumbai, the medical records officer is responsible for the management, quality, accuracy, and confidentiality of records. All records are paper-based and maintained in the medical record department. Hospital statistics, disease and procedures indexes (using ICD-9), and operating room statistics are all manually compiled and maintained.

Planning for the implementation of an EHR system is under way with the help of a global IT consulting company. “We anticipate that we will reduce 60 to 70 percent of the paper in the records over the next five to 10 years,” explains S.G. Shenoy, MD, chief of general surgery at Nair. “The EHR is in an embryonic stage here. We need to clean the Aegean stables first; that is to say, we need to reengineer and streamline our processes on the manual side first in order to become more efficient over time with the EHR.” Nair Hospital expects to operate in a hybrid health record environment similar to most hospitals in the US today.

The Usha Mullapudi Cardiac Center (UMCC) in Hyderabad, also with the help of a consulting agency, has implemented EHRs throughout its facilities as part of an overall hospital information system. Hospital statistics, disease and procedure indices, and other reporting is computerized. Nalini Mullapudi, MD, administrator and CEO of the not-for-profit facility, notes, “The easy access and retrieval of relevant information to the doctors and the medical staff at the point of care ensures that the patient gets better and timely care.” However, Mullapudi admits that “getting a physician to let go of the paper is quite difficult.” UMCC, too, operates in a hybrid health record environment.

Lloyd Nazareth, MD, administrator of Wockhardt Hospital in Mumbai, says that his team made a conscious decision to judiciously balance physical and electronic records and to avoid duplication of effort. At Wockhardt, a 222-bed, for-profit, superspecialty hospital, all diagnostic reports, medication prescriptions, operative notes, anesthesia notes, and discharge summaries are electronic. Patient history, nursing assessment, and daily notes are maintained in physical form, and only summary notes of these notes are entered in the EHR. Nazareth and his team have put in place measurement systems for each department to track efficiency and quality on a monthly basis. Further, they have established policies to address the overall quality of the EHR.

Physicians in India are bound by the Code of Ethics Regulations, 2002, published by the Medical Council of India. The code requires registered medical practitioners to maintain medical records. Further, it states that “efforts shall be made to computerize medical records for quick retrieval.”[9] It is interesting to note that no such specific imperative exists for physicians in the United States. Here, physicians have been encouraged via professional societies and organizations as well as other accreditation bodies to move in this direction.

Parallel HIT Agendas, East and West

Both the Indian and US governments formally recognize the need for expanded, coordinated, and federally promoted health information technology. In the fall of 2003 the Indian government’s Department of Information Technology of the Ministry of Communication and Technology issued a report titled “Framework for Information Technology for Health in India.” The report represented eight months of work by key stakeholders in the Indian healthcare industry. The resulting framework specifies that “information is a determinant of health.”[7] It concludes that technology must play a larger role in simplifying administrative processes, strengthening population-based public health systems, and delivering healthcare services to underprivileged sections of society in a cost-effective manner

In July 2004, the US government released a report establishing a similar response to similar national challenges. “The Decade of Health Information Technology” sets forth a national set of strategic goals to address the problems of “high costs, medical errors, variable quality, administrative inefficiencies, and lack of coordination,” which “are connected to inadequate use of healthcare information technology (HIT) as an integral part of medical care.”[8]

Quality Measures

Hospitals in India and the US are measured on their ability to deliver healthcare that is easily accessed, high in quality, and consumer oriented. In India, like the US, private, for-profit, specialty hospitals compete based primarily on cost, service, and quality. Indian consumers generally pay more attention to the balance of cost and service, because they are responsible for the entire bill.

By contrast, US healthcare consumers primarily make decisions based on access and quality, not on cost. This balance may shift, however. The current plans put forward by the office of the national coordinator of health information technology seek to establish a more consumer-directed model for healthcare, one that will be driven more by cost. Consumers would be expected to choose organizations that not only best meet their healthcare needs but are also cost effective. As consumers take on a broader role in decision making, it's anticipated that healthcare organizations will market directly to them, similar to the market dynamics in the private, for-profit sector in India.

Unlike the US, where multiple agencies and organizations require or request hospitals submit quality metrics, it can be difficult to compare Indian hospitals on performance, according to Shenoy, Mullapudi, and Nazareth, because India has no central agency responsible for evaluating healthcare metrics. "The collection of metrics in hospitals is quite nascent in India," Mullapudi says. Many Indian hospitals consider two organizations for accreditation, according to Nazareth—the Joint Commission International and ICRA, an independent and professional investment information and credit-rating agency. One of the key criteria to achieving the highest ICRA grade is efficient electronic medical record keeping.

Implementing the EHR: Lessons Learned

The health record will be a hybrid for some time, believes Shenoy of Nair Hospital; he expects that the migration to a fully electronic world will take time. He believes that medical transcription—currently unavailable in public hospitals because of high costs—is an important step in generating physician acceptance of the EHR. And as the paper record is reduced, doctors will come to benefit from less paper and increased accessibility to information.

At UMCC, Mullapudi recommends maximizing continuity when managing the transition to the EHR in order to increase acceptance, especially among physicians. She recommends that any new workflow be addressed without forcing a dramatic change in the practice of medicine. She also suggests that electronic forms remain similar to old manual forms. But given the enormity and depth of change that the EHR represents, Mullapudi also stresses the importance of strong buy-in up and down the chain—from management and all stakeholders. Once launched, the system should be monitored closely for opportunities to improve it. Mullapudi recommends continuous evaluation of end-user devices to improve both the efficiency of data entry and accessibility of information.

Wockhardt's Nazareth also stresses the importance of user friendliness; he recommends striving for a simple design and spending plenty of time on user training. Getting to a completely paperless system is still some time away for India, says Nazareth, and an interim hybrid model is an acceptable transitional system. Like Mullapudi, Nazareth stresses buy-in and review, recommending a health information management committee meet regularly to review the structure, content, processes, auditing systems, and quality of the health records.

The HIM Role Worldwide

In India, as in the US, a key component of the successful transition to the EHR will be the HIM professional. Globally, HIM professionals will be required to embrace the changes integral to the implementation and management of EHRs.

What does this really mean, to embrace change? On a personal level, it means that HIM professionals must assess their readiness to assist their organizations through this transformation, at times taking leadership roles. They must assess their technical skills and competencies, and they must visualize an HIM practice without paper and the transition, step by step, process by process, that will lead to it. HIM professionals must ask themselves if they are seen as change leaders in their organizations. If they are not, they must ask themselves what it will take to become one.

Gandhi taught us, "You must be the change you wish to see in the world." In India, the US, and countries throughout the globe, the time is now.

Notes

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