Polio returns to Iraq
Experts warn vaccination alone not enough to beat the disease

The post antibiotic era
WHO issues stark warning of antibiotic resistance saying once again minor infections can kill you

Surgery with 3D printing
Surgeons in Japan use CT images to print exact 3D replicas of kidneys to aid cancer surgery

In the News
- GlaxoSmithKline, Novartis in major partnership deal
- Abu Dhabi’s SEHA partners with Canada’s University Health Network
- Researchers identify genetic evidence for single bacteria cause of sepsis
- MERS-CoV claims more lives in UAE, KSA, first case in Yemen
Health information management – learning from the US experience

Recent reports indicate that the countries of the Gulf Cooperation Council (GCC) are experiencing a period of significant economic growth in the development of healthcare technology infrastructure. It is estimated that amounts in excess of $43.9 billion will be spent on health information technology annually by 2015 within the region. With the dedication of resources and funding allotted to aid in the development of a technology-based healthcare system, the GCC has a unique opportunity to leapfrog Western nations in terms of both quality of care and its provision to various populations. For the GCC to successfully move towards a technologically-advanced healthcare system, however, a highly-skilled workforce must be established to support the adoption, implementation, and use of health information and technologies. This paper provides an outline of the requisite educational competencies and skills needed for the implementation of a state of the art health information technology infrastructure.

US healthcare transformation requires highly skilled workforce

The use of health information technologies (IT) is essential in helping the United States ensure the provision of better care to individuals while reducing costs through improved efficiencies. To advance the technology needed to achieve these goals, in 2009 the US passed the Health Information Technology for Economic and Clinical Health Act (HITECH). This provided incentive programs for eligible hospitals and professionals to adopt electronic health records (EHRs) capable of “collecting, storing, transmitting, and using healthcare information in a meaningful, timely and secure way.” HITECH created an important foundation for restructuring healthcare systems; meeting the National Quality Strategy; and increasing access through better methods of storing, analyzing, and sharing health information ultimately providing the infrastructure for the Patient Protection and Affordable Care Act of 2010 (Affordable Care Act). The Affordable Care Act targeted reforms to the healthcare system by reducing care fragmentation and improving care coordination as a means of improving quality and reducing costs. A number of provisions in the Affordable Care Act will need to leverage a health IT infrastructure to enable the programs and reforms.

To meet the technological demands required by the Affordable Care Act, the following multi-pronged approach is currently being utilized in the US:

- Implementing Workforce Develop-
ment Programs that target incumbent workers, displaced workers, and colleges and universities to provide multiple education and training options, resources for educators, and open-source tools. The Office of the National Coordinator for Health IT (ONC) funded two workforce development initiatives—the Community College Consortia Program and the University-based Health IT Training Program. These programs offered tuition reimbursement and grants to workers through grant funding. Colleges and universities continue to offer the programs after the grant funding ended.

- Developing Curriculum and Competency Examinations that provide important tools for both educators and the employer community by identifying foundational competencies of HIM/HIT workers, linking agreed upon curricula standards, and identifying certifications and credentials that demonstrate a foundational knowledge by workers. Under this program six competency exams were created for different roles.

- Engaging Public-Private Stakeholders to bring together policy, healthcare and education system experts to collaborate on strategies and activities that advance the workforce to meet short- and long-term goals. For example, ONC convenes a Federal Advisory Committee subgroup with government representatives and experts in the private sector including employers, healthcare providers, educators, associations, and others to evaluate and recommend actions to advance the healthcare workforce.

Achieving transformation and reform in the US healthcare system is a long-term initiative that requires the active engagement of policymakers, healthcare providers and services, payers, vendors and educators. A focus on workforce development to ensure a highly-skilled workforce is a critical priority for any nation seeking to advance the use of health IT in their health system.

Healthcare in the GCC

According to a 2014 Deloitte report, the most significant global economic activity in developing healthcare infrastructure is taking place among members of the GCC. Global spending on healthcare is expected to increase by 5.3%, with the GCC increasing most rapidly, and expansion expected to exceed 10%. These findings project to an annual spending of $43.9 billion by 2015, up from $25.6 billion in 2010. In Saudi Arabia, the largest nation in the Middle East North African region, government allocations for healthcare are expected to exceed $14.5 billion in 2014—a 15% increase from 2012. During 2012, 3.8% of the United Arab Emirates’ GDP—approximately $14.2 billion—was spent on healthcare development, a trend which is expected to continue. Similarly, during 2011 the healthcare expenditure in Qatar increased by 27% and per capita spending increased by $1,920.

The development of healthcare infrastructure is a significant factor in this growth. In Saudi Arabia, for example, the development of 19 new hospitals, 155 new primary healthcare centers,
and five new medical cities is expected during 2014. To ensure the success of these facilities and those like them within the region, there is a need to develop a trained and highly skilled national workforce.

Trained global healthcare workforce

From an environmental scan focused on the expansion of health information management and health information technology (HIM/HIT) education conducted for the American Health Information Association (AHIMA), data point to the lack of a trained global workforce and the need to provide standardized HIM/HIT training (Table 1). An examination of the current realities and evolving dynamics of the healthcare environment underscores the need to create educational and workforce standards.

There is a distinct shift in global markets toward recognition of the following:

- Need to implement eHealth technologies,
- Lack of a trained HIM/HIT workforce, and
- Importance of creating standards for HIM/HIT education and workforce (as outlined in Table 1).

While each of these items is of great import, the critical need to create defined standards for educational and workforce training cannot be underestimated. The HIM/HIT field is integral in providing oversight of healthcare data governance, ensuring integrity of data and information, and reviewing analytics of clinical and financial data of the healthcare provider. To collect, store, and use eHealth data to reduce healthcare costs while expanding and improving care, data must be made available in a seamless and interoperable manner. The first step in this process is the creation of a trained HIM/HIT workforce that share similar educational experiences and knowledge to allow them to communicate across operating systems and national boundaries.

In addition to the global environmental scan conducted by AHIMA, a recent survey was conducted to identify the needs associated with the development of an education and workforce standards-setting body. From analysis of African and Eastern Mediterranean countries by the International Federation of Health Information Management Associations (IFHIMA), the top priority for developing countries is a need for HIM education, training and certification. In addition to HIM Education, the following were noted as priority areas:
1. HIM education system
2. EMR
3. HIMS
4. National association

Innovative US healthcare technologies and partnerships deliver better health for patients in the Middle East

By Ken Hyatt, Acting Under Secretary of Commerce for International Trade

As an international leader in the development of innovative healthcare technologies – medical devices, pharmaceuticals, and therapies – the United States medical technology industry is the source of products and services that can help improve healthcare around the world. Like their global counterparts, healthcare professionals in the Middle East depend on the US healthcare sector to provide the highest quality products and the most advanced diagnostic and treatment services in the world.

The specialty items available from US medical device manufacturers range from imaging systems using X-rays, ultrasound, MRI and CT to cardiovascular products, such as pacemakers, coronary stents and catheters. Rapid diagnostic test kits and new drug treatments from US companies are other tools that doctors around the world use to improve the quality of healthcare for their patients.

Innovation is not limited to devices, diagnostic products, and pharmaceuticals. US healthcare institutions are constantly developing new procedures in critical care fields such as trauma treatment, burn care, pain management, diabetes monitoring, renal therapy, cancer treatment and blood banking.

Healthcare in the Middle East is also benefiting from the growing number of partnerships between US hospitals and clinics and healthcare institutions abroad. Such partnerships enable hospitals in the region to have direct links to state-of-the-art diagnostic tools and treatment planning. Although many patients still opt to travel to the United States to receive treatment, international partnerships help keep local doctors involved in the process, enabling them to provide better follow-up care when patients return home.

The US Department of Commerce’s International Trade Administration (ITA) is confident that the already close relationship between the US healthcare sector and the medical community in the Middle East will continue to be strengthened in the coming year. We invite businesses from the area to contact the ITA’s Foreign Commercial Service offices located in embassies and consulates throughout the region. Our staff is available to assist local medical professionals, medical-related businesses and healthcare institutions find suppliers and partners in the United States. Please visit http://export.gov/worldwide_us/index.asp for a list of contacts.

The International Trade Administration looks forward to working closely with our trading partners in the Middle East to facilitate the ability of US companies to help provide the people of the region with the highest quality, most innovative and effective medical devices, pharmaceuticals, healthcare services, and training in the world.
5. E-health
6. Understanding HIM, its role, responsibility, and competency

**Health information professionals in the GCC**
The patterns of expenditure and effort in building of the IT infrastructure and subsequent lack of trained HIM/HIT professionals are similar. Recent studies suggest that the GCC’s spending on healthcare IT will increase to more than $550 million by 2015. The most confining factor preventing the implementation of an integrated and interoperable country-wide healthcare system is the lack of trained workers. The majority of personnel who currently possess the training and qualifications to manage healthcare IT solutions are expatriates. To ensure the creation of a stable and sustainable HIM/HIT workforce, it is critical that the number of technical institutes and academic programs in the GCC continue to increase.

The importance of creating a national healthcare provider workforce cannot be underestimated. To address the health problems facing the GCC (e.g., increasing obesity, diabetes, and cardiovascular disease); it is important to create a culture focused on providing continuity of care between patients and providers. Patients must develop a sense of trust and comfort with providers and providers’ knowledge of those patients they serve over a period of time. By not having nationals as care providers there is a loss of sensitivity to cultural norms and a decreased commitment to working to improve population health. In addition, due to a lack of HIM/HIT professionals, physicians and nurses may be required to complete technical and administrative tasks rather than providing direct clinical care.

**AHIMA’s response**
All healthcare systems, regardless of how well-financed or organized, require a sufficient population of well-trained and highly-skilled workers to meet the needs of implementing health IT systems. A comprehensive healthcare education and workforce strategy is needed to ensure that the aim of building new and enhancing existing long-term national capacity and sustainability is met. Through the creation of international HIM/HIT academic and workforce training standards, it will be possible to increase the number of trained HIM and HIT professionals living in the GCC.

In October 2013 the AHIMA received
a grant from the Department of Commerce to create an international curriculum in the areas of HIM and HIT. As part of this grant, AHIMA will focus on three countries within the GCC: Qatar, Saudi Arabia, and the United Arab Emirates (UAE). Using the three-pronged approach outlined below, AHIMA will work with these countries to develop a national workforce in HIM/HIT:

1. Create an international curriculum and workforce training modules in HIM/HIT
2. Recruit students to accredited US universities in HIM/HIT
3. Provide educational materials and services for development of a trained workforce

To provide structure and to meet the goals of this project, AHIMA has established a Global Health Workforce Council (GHWC). This group’s mission is the provision of reliable and replicable curricular standards for training of a global HIM/HIT workforce. The GHWC will provide a global forum for effective and efficient communication between HIM/HIT educators, vendors, and the healthcare provider community with the express purpose of developing transferable education and workforce training standards to create a highly-skilled HIM/HIT workforce at an international level. The GHWC is comprised of members representing entities whose mission is to advance the development and use of global educational and workforce training standards. Members include, but are not limited to: educators, government officials, leaders from industry, global thought leaders in the area of HIM/HIT and policy analysts. While the membership of the GHWC is global in nature, three members have been selected from the GCC to ensure that the region is well represented.

Through the GHWC, AHIMA will:
- Open communication channels between educators and workforce training entities on a global level;
- Lead in the development of HIM/HIT standards for educational programming and workforce training; and
- Establish a curriculum that will guide educators in order to increase the number of trained and qualified HIM/HIT professionals.

Educational competencies and required skills – the HIM/HIT curriculum of the future

To meet the needs and prepare market-ready students to lead in the areas of health information management; the curriculum developed by the GHWC will focus on development of competencies and skills. The following domains represent the broad nature of both the HIM profession and HIT academic training which will serve as the basis for the curriculum developed:

I. Health IT Systems and Technologies
II. Clinical and Health IT Standards
III. Information Governance
IV. Information Protection: Access Disclosure, Archival, Privacy and Security
V. Informatics, Analytics and Data Use
VI. Revenue Management
VII. Compliance
VIII. Leadership

Health IT systems and technologies: This domain provides a foundational understanding of the types and uses of different health information technologies (e.g., EHRs, personal health records, mobile technologies) and system architectures. It includes foundational computer science principles including programming languages, software engineering, data structures, database management, modeling, system integration/interfaces, and management of information systems.

It also includes specific healthcare applications and understanding of their use in supporting clinical, operational, and business practices.

Clinical and health IT standards: In the standards domain students gain an understanding of the types of clinical and health IT standards used in healthcare and their application to system architecture and data structures. This domain includes an understanding and application of diagnostic and procedural classification systems, clinical terminologies, vocabularies, and data sets. It also includes the identification and application of technical standards for system functionality, communication, exchange, and integration.

Information governance: The Domain of Information Governance focuses on academic content related to decision-making, oversight and organizational practices for diagnostic and procedural classifications and terminologies; health record documentation requirements; characteristics of the healthcare system; data accuracy and integrity; data integration and interoperability; response to customer needs; data management and information standards.

Information protection: Access Disclosure, Archival, Privacy and Security: The information protection domain examines healthcare law (theory of all healthcare law to exclude application of law covered in Domain VII) and is intended to help the student work in the areas of privacy, security, and confidentiality policies, procedures and infrastructure; educate staff on health information protection methods; risk assessment; access and disclosure management. It includes the application of information protection features and functionality in health IT systems and related operational policies in collaboration with information governance practices (Domain III).

Informatics, analytics and data use: The domain area of informatics, analytics and data use was developed to help the student work in the creation and use of business health intelligence; select, implement, use and manage technology solutions; system and data architecture; interface considerations; information management planning; data modeling; system testing; technology benefit realization; analytics and decision support; data visualization techniques; trend analysis; administrative reports; descriptive, inferential and advanced statistical protocols and analysis; research; patient-centred health information technologies; health information exchange; data quality.

Revenue Management: The revenue management domain is directed toward providing the student skills and competencies in developing enterprise-wide strategic and operational planning models for revenue cycle management; forecasting on-going regulatory impact on revenue cycle and enterprise-wide reimbursement; implementing processes for revenue cycle management and reporting; and related clinical documentation improvement (CDI) practices.

Compliance: The compliance domain centers on activities and methods related to compliance processes, policies, and procedures to ensure the accuracy of
Leadership: The leadership domain will provide information and practical application management models, theories, and skills; critical thinking; change management; workflow analysis, design, tools and techniques; human resource management; training and development theory and process; strategic planning; financial management; ethics and project management.

Conclusion
To develop a global network of highly-trained HIM/HIT personnel, short- and long-term educational and strategic planning of the eHIM workforce is critical. The lack of a trained HIM/HIT workforce is seen as the most important factor limiting the expansion and development of and interoperable and sustainable health information network. There is a need to provide HIM/ HIT educational and workforce training that can be globally extrapolated across national boundaries.

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