

Human Resources Management at AUBMC



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Since 1902, the American University of Beirut Medical Center (AUBMC) has been providing the highest standards of care to patients across Lebanon and the region. It is also the teaching medical center for the Faculty of Medicine (FM) at AUB. Over the years, and with the continued expansion, the Faculty of Medicine has graduated over 4,422 medical students and physicians (by 2015), the Rafic Hariri School of Nursing has been able to provide excellent education for the nursing staff, and the medical center has been able to meet the health care needs of over 360,000 patients annually.

Today, AUBMC is the only medical institution in the Middle East to have earned the four international accreditations of the Joint Commission International (JCI), Magnet (Magnet Recognition Program®), the College of American Pathologists (CAP), and the American Council for Graduate Medical Education-International (ACGME-I) attesting to its superior standards in patient-centered care, nursing, pathology/laboratory services, and education.

As the healthcare environment continues to evolve, AUBMC sought relentlessly to think forward and meet the challenges ahead by setting its 2020 vision which came about as a major strategic commitment towards transforming healthcare in Lebanon and beyond. The 2020 vision is meant to provide patients with the highest standards of patient centered care, recruit top-caliber, highly specialized and accomplished faculty, create clinical and research centers of excellence, establish strategic partnerships and collaborations locally, regionally, and internationally, and invest in and expand its facilities to

meet the needs of the people of Lebanon and the region.

With the ongoing development, the Human Resources (HR) department at AUBMC evolved into a progressive department with the critical responsibility of providing AUBMC and its community with the human capital that is needed to realize the 2020 Vision. Members at the HR department believe that exceptional employee-organization alignment is pivotal to personal and organizational success. They tenaciously work on improving this alignment through balanced strategies that help in creating motivated teams, encouraging outstanding performances, recruiting new talents, and developing work competencies. They are continuously committed to parallel initiatives such as career development, engagement, total rewards, and onboarding that contribute to boosting excellence in the workplace.

In a medical setting, HR managers are responsible for both the clinical and non-clinical staff that delivers direct services to patients. Subsequently, the performance of the medical center rests solely with the level of performance provided by the staff. Taking that into consideration, the HR department serves key functions to make AUBMC the employer of choice and employee champion. Accordingly, members have developed a transparent, well-defined, and objective recruitment process that focuses on attracting, hiring, and retaining skilled individuals by adopting the Competency Based Behavioral Interviews (CBBI) and practicing the "Equal Employer Opportunity". The implementation of such an approach depends fully on practical, specific, and fact-based criteria that enhance the chance of fitting the right person in the right job at the right time.

Taking a proactive role, HR leaders have participated in several key projects that would yield stronger impact on the organization's overall performance and play an effective role as a strategic partner in attaining the 2020 vision. These included introducing an evaluation sheet based on Behaviorally Anchored Rating Scale (BARS) to guarantee objectivity of interviews, identifying technical testing that ensure fairness and equity in the hiring process, conducting psychometric tests for selected jobs, creating

internship programs, and creating a hard to fill position list to secure potential candidates.

Various success measures have been put in place to validate the strategic and operational value of the various processes adopted. These eventually showed an increase in AUBMC's internal promotions, a reduction of turnover rate, an acquisition of talented externals and improvement in the time taken to recruit. In addition, AUBMC made momentous strides to improve the efficiency and the quality of its services by arranging several open houses, participating in job fairs, advertising through social media, newspapers, and magazines, and networking with the different universities and institutes in Lebanon.

Since 2009, AUBMC was successful in recruiting more than 108 faculty members most of whom came from the US, some from Europe, and many from Lebanon. This aggressive recruitment plan was successful because the physicians were excited about the 2020 Vision and plans that were put forward. This has resulted in a significant increase in the total number of patients AUBMC serves (inpatient as well as outpatient), and it allowed AUBMC to expand the number of services provided. The Human Resources department implemented a comprehensive recruitment plan to meet the increasing demand for services and care. The plan included different strategies for different groups of employees including professional staff as well as support staff. A key element focused on employee engagement that resulted in several opportunities for employee recognition and retention. At the same time, the HR department continues to be very active in employee development and training in order to meet the ever changing services in healthcare.

The HR staff development has aimed to create a continuous learning and development environment that aimed at providing long-term direction of the staffs' learning needs



and assisting in pursuing the attainment of this learning, instituting mechanisms and processes to promote and support continuous learning, improving and managing the learning process to ensure it occurs by design rather than by chance to be able to fill internally and support the services and employment opportunities that will be created during the 2020 Vision.

Staff development thus serves to support the learning needs of employees by providing opportunities for the acquisition of new knowledge, skills, and behaviors in view of advancing technologies, changing healthcare delivery systems, expanding healthcare-related roles, and research. Staff development offerings are kept relevant to the 2020 Vision and needs of patients, as well as to the learning needs and satisfaction of employees.

Employee recognition and reward are also essential for the success of AUBMC. The HR department, in collaboration with several departments at AUBMC, has put together a comprehensive plan to recognize and promote caregivers. Creating and maintaining career ladders and maps, by consulting with concerned departments, are also essential

as they are key to the right training and development plan that will be given to each individual employee. The department has always aimed to be transparent in everything accomplished and in aligning all work with the mission and vision of AUBMC. Proper development required converting existing job descriptions from a standard format to a competency based format where each job description became more detailed, targeted and in coherence with HR best practices. The job descriptions are reviewed every two years or whenever a change in them is necessitated.

With these career ladders, employees were provided with an opportunity to a clear career path focused on development and growth. In addition to the alignment with AUBMC's core values: diversity, integrity, stewardship, respect, accountability, teamwork and collaboration, AUBMC made a concerted effort to promote and support multidisciplinary teamwork and collaboration across the institution. These efforts allowed a real transformation in the care delivered at AUBMC.

By 2015, performance plans utilized employees' performance through consistent documentations that were initially approved by both the department head and the employee. Both parties participated in setting the yearly goals to be attained and agreed upon individualized development plans. The annual performance reviews also served as key components in terms of employees' promotion. Competence assessments, generated on the Business Decisions Inc. (BDI) system for employees whenever a promotion is requested, as per career ladder, and/or after training on new procedures, evaluate the employee's overall eligibility in relation to the position at hand. They also serve to initiate a development plan when needed.

The HR department's responsibilities extend beyond the above mentioned functions and reaches to combine important online systems that save time for both supervisors and employees within the internal chain of communication. In 2011, a new Human Resource Management System (HRMS) System was introduced to the AUBMC HR department providing functionality to support the activities of different business processes such as budget management, recruitment, personnel administration, workforce planning, compensation and benefits, time management, training and development. This is instrumental in decreasing paperwork and encouraging online submissions of requests in addition to having an

employee and a supervisory portal of many vital uses. The HR department also takes into consideration that healthcare is a very challenging industry and the key to its success is in delivering quality service. The secret is to have engaged employees. Accordingly, AUBMC implemented since 2009 a new tool, the Employee Engagement Survey. Three employee engagement surveys followed during 2009, 2011, and 2012. They yielded improving and increasing results that were shared with all the managers and employees. To achieve this transformation, the HR department has been diligently working on increasing engagement through several initiatives as identified by AUBMC employees. These included developing a consistent formal and informal AUBMC Rewards and Recognition Program, initiating a leadership development program to promising managers and directors, ensuring professionalism at all levels to address proper communication skills, enforcing good practice of the performance management cycle to make it more reliable and fair, updating and maintaining existing Career Ladders for all positions at AUBMC to enhance employees' opportunities for growth, designing a training and development plan that supports the growth of AUBMC employees, reviewing the workforce plan of all the units to ensure reasonable workload and overtime per employee, training managers on competency based interviews to ensure fair selection and ensure transparent communication to applicants.

During the previous years, a lot has been accomplished at AUBMC and the impact on the community has been widely echoed with the minimal number of rejected job offers and high number of attracted qualified externals. The low turnover rate is also associated with the institution's strong management especially in light of the employee's engagement survey which turned out an improvement.

AUBMC is dedicated to the passionate pursuit of improving the health of the community in Lebanon and the region through the delivery of exceptional and comprehensive quality care to its patients, excellence in education and training, and leadership in innovative research. Since HR processes have become ubiquitous in nearly all organizations, AUBMC's HR analytics has set the basis to create new programs that motivate employees and retain them to achieve the institutions' goals. Communicating with employees, fulfilling their needs, and addressing their concerns have proven to be of tremendous impact as well; they are important ingredients for success.

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Strategic Management of Hospitals



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- **Strategic management is the process of managing the pursuit of organizational mission while managing the relationship of the organization to its environment (James M. Higgins).**
- **Strategic management is the process of examining both present and future environments, formulating the organization's objectives, and making, implementing, and controlling decisions focused on achieving these objectives in the present and future environments (Garry D. Smith, Danny R. Arnold, Bobby G. Bizzell).**

Introduction

Strategic management in a hospital is used to refer to the entire scope of strategic-decision making activity in that organization. Strategic management as a concept has developed over time and will continue to evolve in the future. As a result, there exists a variety of meanings and interpretations of this term depending on the author and sources. For example, for some scholars and practitioners the term strategic planning connotes the total strategic management activities. Moreover, sometimes managers use the terms strategic management, strategic planning, and long-range planning interchangeably (Barnat).

Hospitals today, especially in the western world, are actively using strategic management methodologies and processes in order to meet the challenges of providing quality and safe care and to meet the continuously evolving demands of the healthcare market and insurance programs. However, this activity may not be as widely spread among the hospitals of Lebanon.

Definition

There exist many definitions for strategic management in general all applicable to hospitals. The following three are used for the purpose of this article. The last of these three is the best, in my opinion.

- **Strategic management is the continuous planning, monitoring, analysis and assessment of all that is necessary for a hospital to meet its goals and objectives**

Elements of Strategic Management

Strategic management, as a minimum, has two elements:

1. **Strategic Planning** which describes the periodic activities undertaken by organizations (hospitals) to cope with changes in their external environments (*Lester A. Dignan*)
2. **Strategic Control** consists of ensuring that the chosen strategy is being implemented properly and that it is producing the desired results.

Key Terms in Strategic Management

The following key terms are continuously used and on a daily basis as we practice strategic management in our hospitals.

• Purpose

The organization's purpose outlines why the organization exists; it includes a description of its current and future business (*Leslie W. Rue, and Loyd L. Byars*)

• Mission

The mission of an organization is the unique reason for its existence that sets it apart from all others (*A. James, F. Stoner, and Charles Wankel*)

• Goals

A goal is a desired future state that the organization attempts to realize (*Amitai Etzioni*).

• Objectives

Objectives refer to the specific kinds of results the

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The Scope of Strategic Management

J. Constable has defined the areas addressed by strategic management as “the management processes and decisions which determine the long-term structure and activities of the organization”. This definition incorporates five key themes:

- Management process
- Management decisions
- Time scales
- Structure of the organization
- Activities of the organization

Dimensions of Strategic Management

Strategic management process involves the entire range of decisions. Typically, strategic issues have six identifiable dimensions:

- Requires top management decisions
- Involves the allocation of large amounts of resources
- Are likely to have significant impact on the long term prosperity of the organization
- Issues usually have major multifunctional consequences

organizations seek to achieve through its existence and operations (William F. Glueck, and Lawrence R. Jauch)

• Strategy

A strategy is a unified, comprehensive, and integrated plan that relates the strategic advantages of the firm to the challenges of the environment. It is designed to ensure that the basic objectives of the enterprise are achieved through proper execution by the organization (William F. Glueck, and Lawrence R. Jauch).

• Tactics

Tactics are specific actions the hospital might undertake in carrying its strategy.

• Policy

Policies guide our actions. They address how resources are to be allocated and how tasks assigned to the organization might be accomplished... (William F. Glueck, and Lawrence R. Jauch)

• Strategists

Strategists are the individuals who are involved in the strategic management process.

- Necessitate considering factors in the organization’s outside environment

The Strategic Decision Makers

The strategic management process requires competent individuals to ensure its success. Therefore, to understand strategic management, we must know where strategic decisions are made in organizations.

- Top management
- Other managers and staff members
- Board of Directors

As we attempt to strategically manage our hospitals we should recognize three stages in this process: formulation, implementation and evaluation and control. The learning process is long and tedious; however the payoffs to the hospital could be to its survival.

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Dimitri Haddad
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7. Keep and organize records of the facility's services, such as the number of inpatient beds used.
8. Communicate with members of the medical staff and department heads.

Health Administrator Career

Large facilities usually have several assistant administrators to aid the top administrator and to handle daily decisions. Assistant administrators may direct activities in clinical areas such as nursing, surgery, therapy, medical records or health information. In smaller facilities, top administrators handle more of the details of daily operations. For example, many nursing home administrators manage personnel, finance, facility operations and admissions, and have a larger role in resident care.

Clinical managers have more specific responsibilities than do generalists, and have training or experience in a specific clinical area. For example, directors of physical therapy are experienced physical therapists, and most health information and medical record administrators have a bachelor's degree in health information or medical records administration. Clinical managers establish and implement policies, objectives and procedures for their departments; evaluate personnel and work; develop reports and budgets; and coordinate activities with other managers.

An office manager may handle business affairs in small medical groups while larger groups usually employ a full-time administrator to help formulate business strategies and coordinate day-to-day business.

Medical and health services managers in managed care settings perform functions similar to those of their counterparts in large group practices, except that they may have larger staffs to manage. In addition, they may do more work in the areas of community outreach and preventive care than do managers of a group practice.

Some medical and health services managers oversee the

Nature of the Work

Healthcare is a business and, like every other business, it needs good management to keep it running smoothly. The medical and health services manager occupation encompasses all individuals who plan, direct, coordinate and supervise the delivery of healthcare. Medical and health services managers include specialists and generalists. Specialists are in charge of specific clinical departments or services, while generalists manage or help to manage an entire facility or system.

The structure and financing of healthcare is changing rapidly. A medical and health services manager must be prepared to deal with evolving integrated healthcare delivery systems, technological innovations, an increasingly complex regulatory environment, restructuring of work and an increased focus on preventive care. He will be called upon to improve efficiency in healthcare facilities and the quality of the healthcare provided. Increasingly, medical and health services managers will work in organizations in which they must optimize efficiency of a variety of interrelated services — for example, those ranging from inpatient care to outpatient follow-up care. Basically, Medical and Health services Managers duties comprise:

1. Work to improve efficiency and quality in delivering healthcare services.
2. Keep up to date on new laws and regulations so that the facility in which they work complies with them.
3. Supervise assistant administrators in facilities that are large enough to need them.

activities of a number of facilities in health systems. Such systems may contain both inpatient and outpatient facilities and offer a wide range of patient services.

Working Conditions

Most medical and health services managers work long hours. Facilities such as nursing care facilities and hospitals operate around the clock, and administrators and managers may be called at all hours to deal with problems. They also may travel to attend meetings or inspect satellite facilities. Some managers work in comfortable, private offices; others share space with other managers or staff. They may spend considerable time walking, to consult with coworkers.

Qualifications and Credentials

Medical and health services managers must be familiar with management principles and practices. A master's degree in health services administration, long-term care administration, health sciences, public health, public administration or business administration is the standard credential for most generalist positions in this field. However, a bachelor's degree is adequate for some entry-level positions in smaller facilities and at the departmental level within healthcare organizations. Physicians' offices and some other facilities may substitute on-the-job experience for formal education.

Healthcare Administration: A Job for Whom

For clinical department heads, a degree in the appropriate field and work experience may be sufficient for entry. However, a master's degree in health services administration or a related field may be required to advance.

Bachelor's, master's and doctoral degree programs in health administration are offered by colleges, universities and schools of public health, medicine, allied health, public administration and business administration.

Some graduate programs seek students with undergraduate degrees in business or health administration; however, many graduate programs prefer students with a liberal arts or health profession background. Candidates with previous work experience in healthcare also may have an advantage. Competition for entry to these programs is keen, and applicants need above-average grades to gain admission. Graduate programs usually last between two and three years. They may include up to one year of supervised administrative experience, and coursework in areas such as hospital



organization and management, marketing, accounting and budgeting, human resources administration, strategic planning, health economics, and health information systems. Some programs allow students to specialize in one type of facility — hospitals, nursing care facilities, mental health facilities or medical groups. Other programs encourage a generalist approach to health administration education.

New graduates with master's degrees in health services administration may start as department managers or as staff employees. The level of the starting position varies with the experience of the applicant and the size of the organization. Hospitals and other health facilities offer postgraduate residencies and fellowships, which usually are staff positions. Graduates from master's degree programs also take jobs in large group medical practices, clinics, mental health facilities, nursing care corporations and consulting firms.

Graduates with bachelor's degrees in health administration usually begin as administrative assistants or assistant department heads in larger hospitals. They may also begin as department heads or assistant administrators in small hospitals or nursing care facilities.

Medical and health services managers often are responsible for millions of dollars worth of facilities and equipment and hundreds of employees. To make effective decisions, they need to be open to different opinions and good at analyzing contradictory information. They must understand finance and information systems, and be able to interpret data. Motivating others to implement their decisions requires strong leadership abilities. Tact, diplomacy, flexibility and communication skills are essential because medical and health services managers spend most of their time interacting with others.

Medical and health services managers advance by moving into more responsible and higher paying positions, such as assistant or associate administrator, or by moving to larger facilities.

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Management of Hospitals: The Urgent Emerging Need for Academic Training



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Over the past decade, there has been a remarkable growth in the hospital industry worldwide. This has been driven by several factors including population growth, aging and associated comorbidities, as well as health system changes that in many countries encouraged the establishment of private hospitals. However with that growth came challenges. People have become increasingly aware of the importance of healthcare which has led to higher expectations for high quality services. At the same time, markets became competitive with private hospitals competing amongst one another and public hospitals trying to address the long held perception of suboptimal quality and overcrowding.

As a result of these challenges, hospital management emerged as a complex process requiring mastery of different sets of skills (financial, leadership, planning, communication, etc.). The standing practice of learning hospital management through the 'learn-it-as-you-go' approach had to evolve into structured training models.

Hospital Management as a Profession

The tremendous demand and need for hospital management specialists created the opportunity for academic settings to develop hospital management professional degrees. From the beginning, the degree was concerned with providing the principles and practices

related to organizing, coordinating, planning, staffing, evaluating and controlling the health services provided by the hospital. With time, concepts of cost containment and cost-effective quality healthcare emerged to become mainstream skills for hospital management specialists.

Currently, academic institutes and universities offer different models of hospital management training at several levels, ranging from doctoral level to certificates. On the undergraduate level, a Bachelor of Science in Hospital or Healthcare Administration is offered to provide students with a solid foundation in medical and business studies. Courses offered cover topics related to accounting, healthcare finance, medical marketing, leadership and planning, among others. In addition, universities might offer their students internships or fellowship experiences within the hospital setting to ensure practicality. The most common academic training model for hospital management is at the graduate level, especially as a master's degree. The different degrees are Master of Health Administration (MHA), Master of Public Health (MPH), Master of Health Services Administration (MHSA), or Master of Business Administration (MBA – with concentrations in Hospital Management). At this level, the coursework builds upon areas related to financial management, health human resources, biostatistics, epidemiology, health information technology, and quantitative analysis. What differentiates hospital management from healthcare management or healthcare administration is that the training experience for hospital management is geared exclusively towards building a career in hospital settings. However, hospital management certificates and diplomas not only open door for different types of hospital settings (public or private) but also for corporate, private or public healthcare sectors including health agencies, laboratories and clinics, national and international healthcare organizations, public health departments, pharmaceuticals and hospital supply firms, health insurance companies, healthcare centers and nursing homes, and medical software companies.



In the Eastern Mediterranean Region, hospital management programs maintain their leading role through constant curriculum review to meet the latest developments in the public health sector, keeping a close eye on both the regional and the local needs. In Lebanon, the American University of Beirut (AUB) offers a Master in Public Health with a Health Management and Policy concentration under the Graduate Public Health Program (GPHP) which was accredited by the Council on Education for Public Health (CEPH) in 2006, and then received reaccreditation in 2012. It is the only CEPH-accredited program in the Arab world, Asia and Africa. Students gain an in-depth knowledge of the unique management issues relevant to operations in healthcare organizations, finance and information systems with special focus on hospital management. They also gain competence in the application and evaluation of management tools in hospitals and other healthcare settings. Furthermore, this concentration promotes

multidisciplinary and community based research and services to address various public health issues and needs relevant to the served population(s), hence, joining theory to practice for increased impact. The hands-on experience prepares the students to assume increasing levels of responsibility in hospital settings.

The recent growth in demand for high quality healthcare services and the complex nature of healthcare institutions, hospitals in particular, has identified the vital need for hospital management as a concentration to be incorporated in academic institutions and universities worldwide, and specifically in the Eastern Mediterranean Region. Finally, the integration of hospital management in academic programs or degrees will not only improve the management of healthcare institutions but will also have an eventual positive impact on the relevant health outputs in such settings.



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Management of Healthcare IT



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Information Technology (IT) has become indispensable in many industries and with good reasons - organizations introduced IT to improve their financial performance, reduce costs and improve their ability to meet their customers' growing expectations.

IT was introduced in healthcare over three decades ago mostly to address billing and accounting needs. Since then, it has evolved to support the larger clinical automation needs of healthcare organizations. IT teams also grew from being a few skilled programmers to tens of specialized individuals.

Hospital Information System (HIS) is typically comprised of hundreds of integrated Health IT (HIT) solutions used by business, clinical and imaging professionals. Among the benefits, the individual HIT solutions make information more accessible and more available when and where it is needed. They can provide advanced clinical decision support tools that help in the identification of medical problems while reducing errors. Their integration with medical instruments also makes it possible to deliver faster turnarounds for diagnostic tests. More importantly, data can be collected and mined for continuous performance improvement initiatives.

In the context of the healthcare delivery, it is all about people, processes and systems. Managing teams for the implementation and maintenance of HIT solutions can be very challenging due to the constantly evolving landscape. Ultimately, the success of a Health IT team is determined by its ability to provide the means for healthcare professionals to deliver health services more successfully.

HIT Solutions Management

An IT department within a healthcare organization can significantly differ in its staffing structure and services based on the size and vision of the institution. The below outlines the staffing structure, processes and services typically needed to support medium to large Medical Centers.

To better serve the community, the HIT team can be grouped into smaller business focused teams that work in partnership with the community to reach the desired outcomes. Although the smaller teams may be responsible for different sets of solutions, they have to work tightly together to deliver cross-departmental workflows across the clinical, business and imaging solutions. The right communication can lead to successes while poor communication will surely lead to complications and failures.

The Operations team provides the policies and procedures framework for requests management, project management and change management. This includes the tools to measuring KPIs to drive continuous process improvement initiatives for all the HIT teams. Proper operations support can help identify bottlenecks, waists and untapped capacity. Operations are also responsible for staffing, communication, training and accreditation compliance initiatives.

The Business team manages and maintains the applications used by the administrative community. The financial systems such as billing, collection, supply chain, patient registration and identification, admissions, discharges/transfers, human resources, health insurance, as well as other administrative applications such as the operating rooms and out-patient scheduling solutions.

The Clinical team manages and maintains the solutions used by the medical professionals such as the Electronic Medical Record (EMR), the Computerized Physicians Order Entry (CPOE), the emergency department and nursing units' electronic patient tracking boards, the clinical documentation as well as the clinical decision support tools and knowledge bases. The team can also support ancillary

solutions such as the Laboratory Information Systems (LIS) and the pharmacy.

The Imaging team manages and maintains all the medical imaging solutions such as the Picture Archiving and Communication Solution (PACS), the Cardio Vascular Information System (CVIS) and all the smaller solutions that produce diagnostic medical imaging. This includes the associated imaging modules such as the Radiology Information Systems (RIS), which drive the diagnostic reporting workflow.

The clinical, business and imaging teams have analysts and specialists who collaborate and work with the stakeholders to document detailed requirements, perform analysis, review processes and produce designs for the development or implementation of solutions. Application specialists develop detailed scenarios to perform User Acceptance Testing (UAT) with the stakeholders prior to go live. They also provide the first line of applications support.

The Development team works in close collaboration with analysts from all the teams to deliver designs, build and support in-house desktop, web and mobile solutions using a multitude of technologies. This team is also often responsible for the integration services that link solutions together.

The Systems team manages and coordinates the maintenance and upgrades of the applications, databases and web servers needed to optimally run all the solutions as well as the infrastructure services such as the active directory policies, network and IP telephony. This includes but is not limited to managing the high availability server clusters and backups as well as the segregated environments for development, testing and production.

The Data Management team maintains the database catalogue used by all the applications and handles requests from stakeholders who have reporting or business analytics needs. This includes supporting clinical outcomes and research teams who perform analysis on big data sets. This team also handles the validation and maintenance of data marts as well as the transformations services needed for keeping data repositories up-to-date. This facilitates the building of business analytic dashboards for decision makers.

The Security and Compliance team typically oversees the risk assessments initiatives. This includes information management security, access rights, auditing and

compliance issues.

The Helpdesk team acts as the first line of support for office applications and communication issues. They provide PC operating system, printers and accessories support and follow through with all teams until reported issues are resolved. This team can also be responsible for routine daily/monthly operations tasks.

Challenges

Engaging the community in the evaluation, procurement, configuration or development is a key to building a solution that will meet its needs. Engaging stakeholders facilitates the change management challenges.

Governance

Often IT resources are limited compared to the requests received from stakeholders. Developing the right governance model helps in prioritizing the requests and making sure all implementation or development efforts are aligned with the institution's vision. This is by no means an easy feat. Many organizations struggle to get this right as there is not one model that fits all. It is important to identify the key stakeholders with enough experience to help drive decisions in the best interest of the institution. Some of the issues to consider in the management processes are the alignment of the requests with the core goals of the organization, the impact on healthcare quality and safety, the impact on clinical, business and imaging processes as well as the resources and overall costs.

Teamwork and Collaboration

The discipline of Healthcare Informatics or Health IT (HIT) management has matured over the years to support the evolving needs of healthcare. The involvement of multidisciplinary teams of skilled professionals that understand the modern healthcare paradigms is paramount. Again, change management is key. Having the right attitude when faced with changing needs can help lead to the teams to success. Failures to communicate and engage all stakeholders has led to very costly project failures in the US and Europe. Successful projects are often driven by the stakeholders. The project teams should ideally be composed of physicians, nurses, subject matter experts and administrators from different departments as well as IT staff. The value of communicating achievements and what is available in terms of HIT assets and resources is often

under estimated and should be given special attention.

Staffing

Professionals with HIT experience are few. Those who work in this field usually do so out of passion. Finding and mentoring candidates with the right skills and ability to creatively find solutions to solve healthcare challenges using IT takes time but can be very rewarding for an institution.

Security

Securing systems and protecting identifiable health information is critical. In the last few years, there has been a significant increase in threats to healthcare data worldwide. News reports frequently highlight institutions in the US that have suffered from data breaches losing valuable identifiable data. The HIT team is responsible for putting together an information risk assessment plan to address vulnerabilities and implement controls. International standards can be used to categorize risks based on their criticality. This can be particularly challenging because of the multitude of risk vectors. Assessment typically includes a review of all information assets created or maintained through clinical, business and imaging solutions, processes, applications, IT hardware and connected biomedical instruments and devices. It also includes a review of the policies and procedures related to the access management, transport and the storage of data. Steps should be immediately taken to address identified vulnerabilities. Although the Health Insurance Portability and Accountability Act (HIPAA) only applies to US institutions, it is worth understanding and adopting its principles in the absence of equivalent national initiatives.

Integration

Interfacing healthcare solutions can be quite tricky, time consuming and costly. Even though there are agreed upon international standards for messaging between applications, e.g. Health Level 7 (HL7), in reality, every integration is particular. A new emerging specification, in use by leading vendors, the Fast Healthcare Interoperability Resources (FHIR), may simplify the exchange of information in the future. Meanwhile, all the teams have to work tightly together to deliver seamless experiences to stakeholders as part of the applications delivery life cycle. A collaboration needed from the requirements to the analysis, design, development, integration, quality assurance and transfer to the maintenance and support. (e.g. building the integration of an in-house solution with a third party insurer to check

the coverage of patients requires the involvement of the finance team, the vendor business and IT teams and the institution's IT team. Similarly, interfacing medical equipment needs the collaboration of medical records, medical engineering and vendor teams to delivers results directly into an EMR.)

Costs

When implementing HIT solutions, reducing costs may not always be possible. However, supporting solutions that can increase revenue may be possible. Whether built in-house or procured, HIT solutions can be very costly. Not implementing HIT solutions however is not an option for institutions that want to deliver high quality healthcare services and maintain accreditation. To make sure investments are being utilized to their full extent, regular utilization reviews can be conducted. Based on their results, awareness or user trainings can be initiated.

The Future

The future holds fascinating opportunities and it is arriving at high speed even in our region. It is essential to manage HIT with that in mind. Health Information Exchanges (HIE), intelligent patient rooms and mobile healthcare are already being used in leading medical centers worldwide. Wearable devices, such as fitness trackers, smart phones and watches are also being used to capture motion, posture and activities data that can be sent back to health professionals. New facets of HIT are emerging and IT teams have to stay agile to keep up in the interests of the stakeholders they serve.

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