The 25th Annual HIMSS Leadership Survey reflects the experiences and opinions of information technology (IT) professionals in U.S. healthcare provider organizations regarding the use of IT in their organizations. This study covers a wide array of topics crucial to healthcare IT leaders including IT priorities, issues driving and challenging technology adoption, IT security, as well as IT staffing & budgeting plans.

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1. Executive Summary

The findings from the 25th Annual HIMSS Leadership Survey suggest that the federal government’s efforts to accelerate the use of information technology (IT) in healthcare organizations continues to pay off. To illustrate, more than 90 percent of hospital leaders in this study have already qualified for Stage 1 Meaningful Use and approximately three-quarters indicated they expect to qualify for Stage 2 in 2014. Nearly all respondents have also indicated they expect to complete their conversion to ICD-10 by October 2014.

Furthermore, organizations are demonstrating continued progress on adopting technologies that will enhance patient care. Implementing technology for use by physicians, such as Computerized Practitioner Order Entry (CPOE) and physician documentation, is a top IT priority. Two-thirds of respondents reported that their organization participates in a health information exchange organization (HIO), up from approximately half of respondents in last year’s HIMSS Leadership Survey. Finally, organizations are continuing to make information available to patients; one-third of respondents are providing patients with secure, on-line access to clinical patient information. This is up from 12 percent in 2010.

Finally, respondents report that their organizations have a strong focus on their financial bottom line. In an era in which healthcare organizations are trying to adapt to new payment models, the percent of respondents indicating their organization's key business objective is to sustain financial viability, has increased to 25 percent up from 15 percent in 2012. In this context, respondents indicated that the lack of financial resources were a key barrier to successfully implementing IT, despite the fact that about two-thirds of respondents reported that their organization’s budget increased in the past year.

Other key survey results include:

**ICD-10 focus:** Implementing ICD-10 for financial IT systems continues to be the top focus for two-thirds (69 percent) of respondents despite the fact that nearly all respondents indicated their organizations were prepared to meet the impending 2014 deadline.

**Impact of IT on Patient Care:** Respondents were most likely to indicate that IT can impact patient care by improving clinical/quality outcomes, reducing medical errors or helping to standardize care by allowing for the use of evidence-based medicine.

**Involvement of Clinicians in IT:** Clinicians are active participants in many aspects of IT use at their organizations, including acting as project champions and selecting IT systems for use in their department. Furthermore, the number of respondents reporting
their organization employed either a Chief Medical Information Officer (CMIO) or a Chief Nursing Information Officer (CNIO) increased compared to last year.

**Security Concerns:** Twenty (20) percent of respondents indicated that their organization has experienced a security breach in the past year. Respondents were most likely to indicate that complying with HIPAA regulations and preparing for a CMS audit were their key security concerns.

**Organizational Infrastructure:** Twenty (20) percent of respondents indicated that a focus on security systems was their current key infrastructure priority.

**IT Governance:** There continues to be a strong level of integration between an organization’s overall strategic plan and their IT strategic plan. Nearly half of respondents (49 percent) indicated that their organizations’ IT strategic plan is a component of their organizations’ strategic operating, clinical and capital plans.

**Senior IT Executive Responsibilities:** Senior IT executives were most likely to report that they play a role in contributing to overall business strategy and enabling their organizations CEO or executive team to improve management through IT.

**External Areas of Responsibilities:** Nearly all senior IT executives reported that they were responsible for at least one IT area outside of the traditional IT department, primarily telecommunications.

**Consumer Attitudes on Health IT:** Using a scale of one to seven, where one is not at all an influence and seven is a great level of influence, IT executives recorded an average score of 4.73 when asked to identify the extent to which current IT strategy is influenced by the desire to connect with consumers.
2. Methodology

Senior IT executives were e-mailed invitations to participate in this year's HIMSS Leadership Survey. A total of 298 valid responses were received for this year’s Web-based survey. Data collection began in December 2013 and concluded at the end of January 2014.

3. Profile of Survey Respondents

Nearly two-thirds of respondents (65 percent) identified themselves as a Chief Information Officer (CIO), at either the corporate-level (40 percent) or the facility level (25 percent). Another 16 percent of respondents indicated they were a Director of Information Systems/Information Technology (IS/IT). Nine percent identified themselves as a Chief Medical Information Officer (CMIO) and four percent were Chief Nursing Information Officers (CNIOs). The remaining respondents include IT Managers and informatics personnel.

Approximately 90 percent of survey respondents reported working for an acute care hospital-based environment, either at a stand-alone hospital (37 percent), a healthcare system (32 percent) or hospital as a part of a multi-hospital system (21 percent). Survey respondents represent more than 650 hospitals throughout the United States. The average bed size of the hospitals represented in this survey is 600 (median = 254 beds). Four percent of respondents work at an outpatient setting. The remaining respondents reported working for other types of healthcare facilities including mental/behavioral health facilities, long-term care facilities and home care agencies.

Respondents working for an acute care, hospital-based environment were asked to identify the types of hospitals that were part of their organization. Nearly two-thirds of respondents (61 percent) noted that at least one facility in their organization was a community hospital. Twenty (20) percent of respondents reported working for an academic medical center and 17 percent indicated that they worked at an organization that included at least one critical access hospital. Twelve (12) percent reported that they work for a general medical/surgical hospital and ten percent noted that their organization includes at least one specialty hospital, such as a pediatric or cardiology hospital.

Annual gross operating revenues for the provider organizations represented in this year’s survey were:

- $50 million or less—19 percent;
- $51 million to $200 million—23 percent;
- $201 million to $350 million—9 percent;
- $351 million to $500 million—7 percent;
- $501 million to $1 billion—10 percent;
• More than $1 billion—18 percent; and
• Don’t Know/Not Applicable—15 percent.

Respondents were most likely to work in the Mid-Atlantic\(^1\) and South Atlantic\(^2\) regions (17 percent each). East South Central\(^3\) had the fewest number of respondents (six percent).

**Figures:**
Figure 1. Participant Profile—Title
Figure 2. Participant Profile—Facility Type
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**4. Organizational Objectives and IT Priorities**

IT executives have an array of IT priorities even though they are increasingly likely to report that sustaining financial viability is the key business objective facing their organization.

**Key Business Objective**

When asked to identify the single key business objective their organization was trying to achieve in the next 12 months, 25 percent of respondents selected sustaining financial viability. This response reflects an increase from the 21 percent of respondents indicating this to be the case in the 2013 study and 15 percent in 2012.

Other key business objectives selected by the respondents include improving operational efficiencies (16 percent) and improving patient care/quality of care (14 percent). These response items were also top responses in 2013. For the second consecutive year, achieving Meaningful Use was fourth most commonly selected key business objective, at nearly 14 percent.

Several items were selected by less than one percent of respondents. These are:

• Improving physician satisfaction;
• Attracting qualified staff; and
• Participating in a Health Information Exchange Organization.

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\(^1\) New Jersey, New York, Pennsylvania
\(^2\) Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington, DC, West Virginia,
\(^3\) Alabama, Kentucky, Mississippi, Tennessee
None of the respondents indicated that improving supply chain dynamics was a key business objective for their organizations.

Business Issues Driving Healthcare

Nearly half of all survey respondents indicated that the primary business issue projected to impact healthcare in the next two years fell into one of two categories; changing payment models, including payment structures and Accountable Care (selected by 23 percent of respondents) and policy mandates, such as complying with regulations like ICD-10 (22 percent). The responses this year represent a change from last year when healthcare reform, which included Accountable Care Organizations, new care models and payment structures, were identified as the top concern by 37 percent of the respondents.

Respondents also reported that financial considerations, such as a demand for capital or creating new revenue sources was a top business issue. Identified by 17 percent of respondents, this was also in the top three responses in the 2013 study.

Respondents continued to be least likely to indicate hospital non-IT infrastructure needs, such as facility upgrades and mergers or acquisitions (one percent), would be a business issue impacting healthcare. None of the respondents indicated that the category external threats (including terrorism and acts of nature) was an issue that would have a significant impact on healthcare in the next two years.

IT Priorities

Respondents continue to identify achieving Meaningful Use as their organizations’ top IT priority (25 percent of respondents), down slightly from 28 percent in 2013. This decline is reflective of a broader trend starting in 2011 when half of respondents indicated their organization had a primary focus on implementing systems that would help them achieve Meaningful Use.

The response items rounding out the top three IT Priorities have remained unchanged for the last three years. These include optimizing the effective use of their currently installed systems (19 percent), and leveraging information housed in data warehouses and business intelligence systems (17 percent).

One percent or fewer of respondents indicated the following items would be considered top IT priority over the next two years.
• Securing patient information/identity management;
• Integration of IT and medical devices;
• Healthcare consumer focused solutions; and
• Focus on revenue cycle management (RCM) solutions.

None of the respondents identified supply chain systems as a top IT priority in the next two years.

To more fully understand the areas on which IT executives were focusing their attention, respondents were also asked to identify the primary focus their organization has with regard to clinical IT, financial IT and infrastructure at their organizations.

Primary Clinical IT Focus

Approximately 20 percent of respondents (21 percent) indicated that their organizations’ primary clinical focus was physician systems, including clinical decision support solutions geared towards physicians, CPOE and physician documentation. The responses this year are notable because it signals a potential shift in clinical IT priorities away from ensuring a fully functional EHR. That said, ensuring a fully functional EHR was still a top response (13 percent), but had dropped to second place in this year’s survey. Also identified by 13 percent of respondents was linking clinical systems with quality measures and outcomes. This item was also in third position last year.

Less than one percent of respondents indicated the below items as a primary area of clinical focus:

• Installing/upgrading a clinical data repository;
• Installing/upgrading nursing systems such as nursing documentation;
• Installing PACS system; and
• Installing evidence based guidelines for CDS.

None of the respondents indicated that creating clinical documentation flow sheets or implementing sub-acute and post-acute care solutions at facilities such as home care or hospice care facilities were a primary clinical focus at this time.

Primary Financial IT Focus

With a looming deadline of October 2014, two-thirds of respondents (69 percent) indicated that meeting the upcoming deadline for ICD-10 was their top IT priority. This was also the case in 2013. No other response was selected by more than 10 percent of respondents.
Upgrading the patient billing system (six percent) or financial analytics system to support an Accountable Care Organization (ACO) or bundled payments (five percent) were the only options that were selected by more than five percent of respondents. These items also rounded out the top three in 2013.

Several responses were not selected as a top financial IT priority by any of the respondents. These include:

- Implementing claims transactions directly with payers (no clearinghouse); and
- Implementing a natural language processing (NLP) system.

**Primary Infrastructure Focus**

A focus on security systems continues to be the top IT infrastructure issue at healthcare organizations. In 2014, this was identified by 20 percent of respondents. This was also the top cited response in 2013 (22 percent). Rounding out the top three was a focus on desktop/laptop and virtual desktop/laptop computers and mobile devices. Each of these items was selected by 15 percent of respondents. Last year’s second place response, servers/virtual servers fell to fourth place, identified by 11 percent of respondents.

Respondents continued to be least likely to identify that either deploying a vendor neutral archive system was a key infrastructure priority at their organizations. This was identified by three percent of respondents.

**Figures:**
Figure 6. Top IT Priority – Next Two Years
Figure 7. Primary Clinical IT Focus – Top Ten
Figure 8. Primary Financial IT Focus – Top Ten
Figure 9. Primary IT Infrastructure Focus – Top Ten
Figure 10. Key Business Objective
Figure 11. Business Issue with Most Impact on Healthcare

**5. IT Barriers**

After identifying staffing resources as a key barrier for the past two years, respondents indicated that a lack of adequate financial resources was a key barrier to IT implementation. Lack of staffing was identified second most frequently.

A lack of financial support and staffing resources continue to be key barriers to implementing IT solutions at respondents’ organizations. Nineteen (19) percent of respondents indicated that lack of adequate financial resources or lack of budget was a barrier and 18 percent indicated that lack of staffing resources was a barrier. Although
selected in reverse order last year, these were also the top barriers identified in the 2013 study.

Once again rounding out the top three responses was vendors' inability to effectively deliver products or services to respondents' satisfaction. This was identified by 13 percent of respondents. No other response was identified by more than 10 percent of respondents.

Less than two percent of respondents selected each of the below items as a significant barrier to implementing IT at their organizations.

- Ability to secure data;
- Lack of effective project management; and
- Laws/regulations prohibiting technology sharing with referring providers.

Figures:
Figure 12. Most Significant Barriers to Implementing IT

6. IT and Patient Care

IT leaders continued to indicate that IT positively impacts patient care through improved clinical/quality outcomes, reduced medical errors or standardized care by allowing for the use of evidence-based medicine. IT professionals also reported that clinicians continue to be widely engaged in the IT process.

More than one-third of respondents indicated that IT can positively impact patient care by improving clinical and quality outcomes. This was selected by 37 percent of respondents and has been the most frequently identified response for the past several years. Rounding out the top three areas in which IT can impact patient care are reducing medical errors/improving patient safety and standardizing clinical care using evidence-based medicine. These were selected by 18 and 13 percent of respondents, respectively. These items also rounded out the top three responses last year.

Respondents were least likely to indicate that enabling practitioners to obtain data from remote locations, such as their homes, was an item that could have a substantial impact on patient care. This was identified by less than one percent of respondents.

Only four percent of survey respondents indicated that clinicians at their organizations have no role in the IT process. This is consistent to what was reported in 2013. Respondents were most likely to report that clinicians act as project champions (74 percent). Nearly three-quarters of respondents also reported that their organizations’ clinicians participate in IT systems evaluation and selection (73 percent). In reverse
order, these were also the top two areas in which respondents reported that clinicians were engaged in the 2013 study.

Forty (40) percent indicated that their organization employs a Chief Medical Information Officer (CMIO). This is an increase from the one-third of respondents that indicated this to be the case in 2013. The number of respondents reporting that their organizations’ employ a Chief Nursing Information Officer (CNIO) doubled in the past year to 15 percent.

Respondents were least likely to indicate that clinicians who are department managers may select the IT systems needed to support their departments, but they are also responsible for ensuring that business objectives and goals are met by implementing the IT systems. This item was selected by 13 percent of respondents.

Nearly all respondents indicated that individuals at their organizations have secure, on-line access to clinical patient information; 99 percent of respondents reported that at least one group at their organization has this type of access. Respondents were most likely to indicate that physicians had access to this information (96 percent); this is similar to what was reported in 2013. The percent of respondents indicating that different groups of individuals have access to this type of information is noted below.

- Physicians – 96 percent;
- Physician extenders – 75 percent;
- Nurses/nurse practitioners – 70 percent;
- Other clinical professionals (i.e. occupational therapists) – 63 percent;
- Non-clinical staff (i.e. transcriptionists) – 61 percent;
- Patients – 36 percent.

Finally, there continues to be a steady increase in the number of organizations that are making this type of information available to patients. The one-third of respondents that indicated patients have access to this data has increased steadily from 12 percent reported in 2010.

**Figures:**
Figure 13. Area that IT Can Most Impact Patient Care
Figure 14. Role of Clinicians
Figure 15. Access to On-line Patient Information from Remote Location
7. IT Security

Twenty percent of respondents indicated their organization had experienced a security breach in the past year. Respondents were most likely to indicate that complying with HIPAA security regulations and CMS security audits was their primary concern related to the security of electronic medical information.

Twenty (20) percent of respondents noted their organization had experienced some type of security breach in the past 12 months. This is consistent with the 19 percent that was reported in 2013.

When asked to identify no more than two concerns they had regarding the security of electronic medical information at their organizations, more than one-third of respondents (38 percent) indicated that they were concerned about their organization’s ability to comply with HIPAA security regulations and CMS security audits. Roughly another thirty percent of respondents (29 percent) indicated that they had concerns about an internal breach of security. These items were both in the top three in the 2013 study.

Last year’s top response, securing information on mobile devices was identified as a concern by one-quarter of respondents (24 percent). Last year, more than one-third of respondents (36 percent) indicated this was a top security concern.

Respondents continue to be unlikely to indicate concerns about the ability of their business associates to comply with existing business associate agreements; this was selected by three percent of respondents. It was also selected by three percent of respondents in 2013.

Consistent to what has been reported in the past, three percent of respondents indicated that they did not have any concerns related to the security of their electronic medical information at this time.

Figures:
Figure 16. Security Breach
Figure 17. Top Concerns – Security of Computerized Medical Information

8. Health Information Exchange Organization Participation

Nearly two-thirds of respondents reported their organization participates in at least one Health Information Exchange Organization (HIO) in their area, an increase from what was reported last year.

Respondents were asked to identify their current involvement in an HIO, defined as “an organization which brings together healthcare stakeholders to oversee and govern the
exchange of health-related information according to nationally recognized standards” (which could include a state-designated health information exchange).

The majority of respondents (ninety-five percent) had some degree of familiarity with a health information exchange organization. Nearly two-thirds of respondents (64 percent) reported that their organization participates in at least one HIO in their region. This is an increase in the 51 percent reporting this to be the case in 2013. Twelve (12) percent of respondents also indicated that they participate in a state health information exchange organization.

Sixteen (16) percent of respondents reported that there was a health information exchange organization in their area, but have chosen not to participate at this time. The lack of involvement in an HIO this year is down from 21 percent in 2013. Three percent of respondents reported that they participated in an HIO in the past, but the HIO failed.

Finally, 14 percent of respondents noted their organization had yet to start planning to participate in an HIO.

**Figures:**
Figure 18. Health Information Exchange Adoption

**9. IT Governance**

There continues to be a strong level of integration between the IT strategic plan at respondents’ organizations and their organizations’ overall strategic plans. Senior IT executives also play a key role in contributing to overall business strategy at their organizations.

Nearly half of respondents (49 percent) indicated that their organizations’ IT strategic plan is a component of their organizations’ strategic operating, clinical and capital plans. Another 37 percent indicated that the IT plan is integrated with the organizational strategic plan, but the two plans are separate. This is consistent to what has been reported in the past.

Six percent of respondents indicated that their organization does not have an IT strategic plan. Another seven percent of respondents indicated that while their organization has both an IT strategic plan and an organizational plan, the two are not integrated.

Nearly two-thirds of respondents (65 percent) indicated that they are a member of their organization’s executive committee, defined in this study as “the leadership team that drives overall organization strategy and direction”. This is slightly higher than the 60 percent of respondents that reported this to be the case in 2013.
Respondents identifying themselves a senior IT executive were asked to identify which responsibilities they assume on a regular basis as part of their job. For the second year in a row, contributing to overall business strategy was identified as the top response. A list of the items outlined in this study and the percent of respondents that selected each item is below.

- Contributing to overall business strategy – 87 percent;
- Enabling CEO/executive team to improve management through IT – 85 percent;
- Driving value from IT investments – 85 percent;
- Supporting business and clinical process owners – 84 percent;
- Responsible for process change management – 79 percent; and
- Managing IS/IT department operations – 75 percent.

**Figures:**
- Figure 19. Alignment of Organizational & IT Strategic Plan
- Figure 20. Member of Organization’s Executive Committee
- Figure 21. Senior IT Executive Responsibilities

**10. Federal Initiatives**

Investments in technologies to help position organizations to qualify for meaningful use and the conversion to ICD-10 are paying off. More than 90 percent of respondents reported they have already qualified for MU Stage 1 and three-quarters indicated that they expect to qualify for MU Stage 2 in 2014. Nearly all respondents, 92 percent, indicated they expect to complete their conversion to ICD-10 October 2014.

**Meaningful Use – Stage 1**

The vast majority of respondents (90 percent) indicated that their organization has already attested to Stage 1 of Meaningful Use; up from two-thirds a year ago. Another six percent identified plans to attest in the future. Only four percent claimed their organization will not attest at any time.

Regarding the amount of money spent to achieve MU Stage 1, approximately two percent of respondents indicated their organization has made no additional investment to achieve this threshold. Consistent with what was reported in 2013, one-third (32 percent) reported they will ultimately invest less than $1 million in achieving Stage 1.

Another 20 percent reported that their organization will invest between $1 million and $4 million to achieve MU Stage 1 requirements. Sixteen (16) percent will invest $5 million or more on achieving Stage 1 Meaningful Use. The remaining respondents either did not know the answer to this question or chose not to disclose this information.
Respondents working for an organization that includes at least one hospital were asked to identify how much money their organization has received for meeting Stage 1 Meaningful Use requirements. The below list identifies the money that organizations have received for their investment.

- None – one percent;
- Less than $2 million — 24 percent;
- $2 million to $3 million — 18 percent;
- $4 million to $5 million — 11 percent;
- $6 million to $7 million — 7 percent;
- $8 million to $9 million — 6 percent; and
- $10 million or more — 9 percent.

The remaining respondents either preferred not to disclose the level of money they expected to receive or did not know the amount.

*Meaningful Use – Stage 2*

Respondents were also asked to identify when they expected that their organization would qualify for the Stage 2 Meaningful Use requirements. Nearly three-quarters (71 percent) of respondents indicated that they anticipate their organization would qualify for the incentives available through Stage 2 by the end of 2014. Another 19 percent noted that they would qualify for these incentives in 2015. Two percent indicated that their organizations would qualify for Stage 2 in 2016 or later and four percent indicated they had no plans to qualify for Stage 2. Four percent were unsure of their plans at this time.

As to how much money organizations have spent (or will spend) to achieve Stage 2, only three percent of respondents indicated that their organization will make no additional investment in IT at this time. Forty (40) percent indicated that their organization will invest less than $1 million to achieve Stage 2, while 12 percent will make an investment of $1 to $4 million. Only two percent expect their organization to make an investment of at least $5 million to achieve Stage 2. A large percent of respondents (19 percent) also indicated that they were unsure of the level of investment that would be needed at their organization at this time and 15 percent answered this question as “not applicable”.

When asked to project the amount of money they anticipated receiving as a result of Stage 2 investments, two percent of respondents working for a hospital-based organization did not believe they would receive any incentive. The below list outlines the return organizations anticipate that they will receive for their investment.
• None – one percent;
• Less than $2 million — 37 percent;
• $2 million to $3 million — 13 percent;
• $4 million to $5 million — 3 percent;
• $6 million to $7 million — 3 percent;
• $8 million to $9 million — 3 percent; and
• $10 million or more — 3 percent.

The remaining respondents either preferred not to disclose the level of money they expected to receive or did not know the amount.

**ICD-10**

Respondents were asked to indicate if they expected to be able to complete their ICD-10 conversion by the deadline of October 1, 2014. Nearly all respondents (92 percent) indicated they expect to complete their conversion by this deadline.

When asked to identify the level of investment they were making in their ICD-10 conversion efforts, two percent of respondents indicated that they had not spent any additional money to complete their conversion. Nearly half of respondents (46 percent) indicated investing less than $1 million in this conversion. Another 14 percent indicated they were spending between $1 million and $4 million, and four percent spent $5 million or more. One-quarter of respondents were unsure with the level of their organization’s investment. These numbers are somewhat higher than what was reported in 2013.

**Figures:**

- Figure 22. Percent of Organizations that Expect to Qualify for Stage 1 Meaningful Use
- Figure 23. Level of Investments Made by Healthcare Organizations in Meaningful Use Stage 1
- Figure 24. Percent of Organizations that Expect to Qualify for Stage 2 Meaningful Use
- Figure 25. Level of Investments Made by Healthcare Organizations in Meaningful Use Stage 2
- Figure 26. Anticipated ROI for Meeting Meaningful Use Stage 1 Requirements
- Figure 27. Anticipated ROI for Meeting Meaningful Use Stage 2 Requirements
- Figure 28. Preparedness to Meet ICD-10 Conversion
- Figure 29. Level of Investment Made in ICD-10 Conversion

11. **IT Budget and Staff**

Driven by an overall increase in the number of systems they need to manage, two-thirds of IT leaders expect both their operating budgets to increase in the next year. More than one-third of respondents 39 percent expect the number of individuals employed in the IT department to increase in the next year.
IT Staffing

According to the 2013 HIMSS Analytics® Database, U.S. hospital IT departments employed an average of 39 IT FTEs (median six IT FTEs).

Slightly more one-third (39 percent) of respondents indicated that they expected to add IT staff in the next 12 months. This is down from half in 2013 and 61 percent in 2012. More specifically, 10 percent of respondents indicated their staff would increase by more than 20 percent this coming year, 10 percent are targeting a 10 to 20 percent increase and 19 percent believe the increase will be less than 10 percent.

Half reported that staffing levels would remain the same over the next 12 months, up from 38 percent in 2013. Nine percent of respondents indicated they expected a staffing decrease in the next 12 months; a slight increase from the seven percent who reported this to be the case in 2013.

One-third of respondents (36 percent) who reported an expected staffing increase in 2013 indicated they would add one or two IT FTEs. Approximately 21 percent indicated they budget for three to five additional ITFTEs and ten percent planned to hire six to ten IT FTEs. Thirteen percent planned to add more than ten IT FTEs. Nine percent reported that the IT FTEs they planned to add to their staff were not budgeted. These numbers are consistent with those reported in last year’s study.

All respondents were asked to identify the areas in which they have the most critical IT staffing needs. Six percent of respondents reported that their organization did not have any IT staffing needs at this time. The top three areas of staffing needs have not changed in the past year. Clinical application support continues to be the area in which respondents were most likely to indicate a staffing need, identified by 36 percent of respondents. This is followed by network/architecture support professionals (29 percent) and clinical informatics professionals (21 percent).

Five percent or fewer respondents reported having critical staffing needs in the below areas:

- IT planning (four percent);
- Management of mobile devices (four percent); and
- Internet/Intranet Staff (three percent).

Among senior IT executives, 97 percent indicated they were responsible for at least one area outside of the IT department; this is slightly higher than the 92 percent that reported this to be the case in 2013. Senior IT executives were most likely to report that they were also responsible for the telecommunications functions at their organizations (67 percent). Respondents also reported responsibilities in other areas such as

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medical/clinical informatics (57 percent), health information management (22 percent), and biomedical/clinical engineering (16 percent). Another 18 percent also reported having responsibilities in other areas, such as quality, facilities and transcription.

**IT Budgets**

According to the HIMSS Analytics® Database, the average IS operating expense as a total expense for U.S. hospitals in 2013, was 3.08 percent. Approximately two-thirds of survey respondents (65 percent) noted their organizations’ operating budgets for 2014 would increase over 2013 levels; this is a decrease from the three-quarters that reported this to be the case last year. One-third of the respondents (38 percent) noted their budget would definitely increase in the next year while 27 percent identified a probable increase.

Nineteen (19) percent of respondents reported their IT budget would remain unchanged and twelve percent of respondents indicated their budget would decrease in the next year. Each of these numbers has increased slightly in the past year.

When asked to identify why they projected an IT budget increase, respondents continue to be most likely to indicate the increase is due to the overall growth in the number of systems and technologies in their organization (58 percent of respondents). Nearly half of respondents (49 percent) indicated the increase is a result of the need to comply with regulatory changes. Rounding out the top three is an overall budget increase, identified by 46 percent of respondents.

Last year’s number two response, increased costs as a result of additional staffing and/or consulting services to comply with regulations dropped to fifth place, identified by 39 percent of respondents.

Respondents were least likely to identify business requirements needed to invest in e-business as an item to create an increase in IT operating budget; only six percent of respondents indicated this to be the case. This area was also least likely to drive an expected increase in 2013.

Among the respondents indicating their budget would decrease, two-thirds (65 percent) indicated this was a result of an overall budget decrease at their organization. This was also the top response last year, identified by 46 percent of respondents. Another third (35 percent) indicated that an IT budget decrease was a result of a reduction in hospital revenues. None of the respondents indicated that a decrease in revenue was the result of a lack of ability to prove return on investment (ROI) or the closing of a facility and/or business unit.
Figures:
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12. About HIMSS

HIMSS is a global, cause-based, not-for-profit organization focused on better health through information technology (IT). HIMSS leads efforts to optimize health engagements and care outcomes using information technology. Visit www.himss.org.

HIMSS is a part of HIMSS WorldWide, a cause-based, global enterprise producing health IT thought leadership, education, events, market research and media services around the world. Founded in 1961, HIMSS WorldWide encompasses more than 52,000 individuals, of which more than two-thirds work in healthcare provider, governmental and not-for-profit organizations across the globe, plus over 600 corporations and 250 not-for-profit partner organizations, that share this cause. HIMSS WorldWide, headquartered in Chicago, serves the global health IT community with additional offices in the United States, Europe, and Asia.

15. How to Cite This Study

Individuals are encouraged to cite this report and any accompanying graphics in printed matter, publications, or any other medium, as long as the information is attributed to the 25th Annual HIMSS Leadership Survey.

16. For More Information, Contact:

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Senior Director, Corporate Communications
HIMSS
312/915-9237
jlofstrom@himss.org
Appendix of Figures

Participant Profile – Title

- Corporate CIO: 40%
- Facility CIO: 25%
- Department Head: 16%
- CMIO: 9%
- CNIO: 4%
- Manager: 2%
- Senior Staff: 0%
- Staff: 0%
- Other: 5%

N=298

Participant Profile – Facility Type

- Stand-Alone Hospital: 37%
- Corporate Offices Healthcare System: 32%
- Multi-Hospital System: 21%
- Outpatient Setting: 4%
- Mental/Behavioral Health: 1%
- Long-Term Care Facility: 0%
- Other: 5%

N=298
Participant Profile – Type of Hospital

- Community Hospital: 51%
- Academic Medical Center: 20%
- Critical Access Hospital: 17%
- Rural Hospital: 16%
- General Medical/Surgical Facility: 12%
- Specialty Hospital: 10%
- Military Treatment Facility: 1%
- VA Hospital: 0%
- Indian Health Service: 0%
- Other: 6%

N=xxx

Participant Profile – Revenue

- $50 Million or Less: 19%
- $51 to $200 Million: 23%
- $201 to $350 Million: 23%
- $351 to $500 Million: 7%
- $501 Million to $1 Billion: 10%
- More than $1 Billion: 10%
- Not Applicable: 2%
- Don’t Know: 12%

N=288
**Participant Profile – Region**

- South Atlantic: 17%
- Mid Atlantic: 17%
- East North Central: 16%
- West North Central: 13%
- Pacific: 8%
- Mountain: 8%
- West South Central: 6%
- New England: 7%
- East South Central: 6%

N=288

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**Top IT Priority – Next Two Years**

- Achieve Meaningful Use: 25%
- Optimize Use of Current Systems: 19%
- Leverage Information: 17%
- Complete CD-10 Conversion: 15%
- Focus on Clinical Systems: 7%
- IT Support for Risk Based Contracting: 3%
- Demonstrating Ability to Exchange Information: 3%
- Focus on Ambulatory Systems: 2%
- Integration of IT/ Allied Domains: 1%
- Sequestering Patient Information: 1%
- Healthcare Consumer Solutions: 1%
- RCM Solutions: 1%
- Other: 4%

N=288
Primary Clinical IT Focus – Top Ten

- Focus on Physician Systems: 21%
- Ensuring Organization has Fully Functional EHR: 13%
- Linking Clinical Systems with Quality Measures: 13%
- Supporting Workflow Changes: 9%
- Focus on Data Warehouse: 9%
- Implementing Patient Portal: 2%
- Implementing Ambulatory EHR Solution: 4%
- Creating Standards-Based Care Summary: 3%
- Ancillary Systems: 2%
- Establishing Clinical Protocols: 2%
- Interoperability of EHR and Mobile Devices: 2%

N=288

Primary Financial IT Focus – Top Ten

- ICD-10 Conversion: 69%
- Upgrading Patient Billing: 0%
- Upgrading Financial Analytics: 0%
- Implementing Enterprise Scheduling System: 2%
- Implementing Computer Assisted Coding: 2%
- Upgrading Patient Access System: 1%
- Web-enabled Registration Process: 1%
- Implementing Direct Eligibility Transactions: 1%
- Implementing Medical Necessity Checking: 1%
- Upgrading Encoding System: 1%
- Web-enabled Patient Scheduling: 1%
- Web-enabled Bill Payment Process: 0%

N=288
### Business Issue with Most Impact on Healthcare

- Changing Payment Models: 23%
- Policy/Mandates: 22%
- Financial Considerations: 17%
- Shifting Healthcare Landscape: 17%
- Changing Insurance Models: 7%
- Health Information Exchange/Interoperability: 5%
- Technology Considerations: 5%
- Privacy/Security Concerns: 4%
- Consumer/Patient Considerations: 3%
- Starting Issues: 3%
- Non-IT Infrastructure Needs: 1%
- Other: 1%

N=288

### Most Significant Barriers to Implementing IT – Top Ten

- Lack of Financial Support: 19%
- Lack of Staffing Resources: 18%
- Vendors Inability to Deliver Project: 13%
- Lack of Interoperable Systems: 7%
- Difficulty/Achieving End-User Acceptance: 7%
- Difficulty/Proving ROI: 6%
- Lack of Time by Clinicians: 6%
- Lack of Top Management Support: 4%
- Lack of Strategic IT Plan: 4%
- Constraints at Higher Policy Level: 4%

N=288
Area that Can Most Impact Patient Care

- Improving Quality Outcomes: 37%
- Reducing Medical Errors: 16%
- Helping Standardize Clinical Care: 13%
- Supporting Staff Productivity: 6%
- Sharing/Accessing Data with External Entities: 6%
- Providing Competitive Advantage: 6%
- Enabling Patient Access to Clinical Information: 4%
- Telemedicine/Remote Monitoring: 2%
- Ensuring Patient Data is Secure: 1%
- Allowing Clinicians to Access Data Remotely: 1%
- Other: 1%
- Don’t Know: 0%

N=288

Role of Clinicians

- Project Champions: 14%
- IT Evaluation and Selection: 13%
- Development of Policies: 9%
- Hospitalists: 8%
- Clinician Training: 8%
- Innovative Ways of Using IT in Clinical Areas: 6%
- Employed by IS Department: 4%
- Business Project Leader: 4%
- CMO: 4%
- CNO: 4%
- Department Managers Select IT Systems: 13%
- No Role: 1%

N=288
Access to On-Line Patient Information from Remote Location

- Physicians: 95%
- Physician Extenders: 75%
- Nurses/Nurse Practitioners: 70%
- Other Clinical Professionals: 63%
- Non-Clinical Staff: 61%
- Patients: 36%
- Other: 3%

N=286

Security Breach

- Last 12 Months: 20%
- Last Six Months: 13%

N=286
Top Concerns – Security of Computerized Medical Information

- Compliance with HIPAA Regulations: 38%
- Internal Breach of Security: 30%
- Securing Mobile Devices: 24%
- External Breach of Security: 17%
- Data Leakage: 15%
- Inadequate Funding: 13%
- Unauthorized Third Party Access: 8%
- Limits of Existing Technology: 7%
- Inadequate Systems in Place: 6%
- Patient’s Lack of Confidence in Security: 6%
- Connecting Remote Locations: 6%

Health Information Exchange Adoption

- Participate in HIO: 84%
- Don’t Participate in HIO: 16%
- Have Not Begun to Plan for HIO Participation: 14%
- Required to Participate in State HIO: 12%
- Past Participation in Failed HIO: 3%
- Don’t Know What an HIO Is: 5%
- Don’t Know: 1%

N=288
Alignment of Organizational & IT Strategic Plan

- Strategic Plan is Component of Organizational Plan: 49%
- IT Plan is Integrated with Organizational Plan: 37%
- Two Plans are Not Integrated: 7%
- No IT Strategic Plan: 6%
- Other: 1%

N=288

Member of Organization’s Executive Committee

- Yes: 65%
- No: 35%

N=288
Senior IT Executive Responsibilities

- Contribute to Overall Business Strategy: 67%
- CEOs improve Management Through IT: 65%
- Drive Value From IT Investments: 85%
- Support Business/Clinical Process Owners: 84%
- Responsible for Process Change Management: 78%
- Manage IS/IT Department: 75%
- Other: 3%

N=193

Percent of Organizations that Expect to Qualify for Stage 1 Meaningful Use

- Already Attested: 90%
- Planning to Attest: 5%
- Not Planning to Attest: 4%
- Don't Know: 1%

N=298
Level of Investment Made by Healthcare Organizations in MU Stage 1

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Additional Funds</td>
<td>2%</td>
</tr>
<tr>
<td>Under $25,000</td>
<td>9%</td>
</tr>
<tr>
<td>$25,000 to $99,999</td>
<td>11%</td>
</tr>
<tr>
<td>$100,000 to $999,999</td>
<td>13%</td>
</tr>
<tr>
<td>$1 to $2 Million</td>
<td>12%</td>
</tr>
<tr>
<td>$2 to $4 Million</td>
<td>3%</td>
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<tr>
<td>$6 to $10 Million</td>
<td>0%</td>
</tr>
<tr>
<td>$10 to $14 Million</td>
<td>3%</td>
</tr>
<tr>
<td>$15 to $19 Million</td>
<td>2%</td>
</tr>
<tr>
<td>$20 Million or More</td>
<td>5%</td>
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<tr>
<td>Not Applicable</td>
<td>4%</td>
</tr>
<tr>
<td>Prefer Not to Disclose</td>
<td>0%</td>
</tr>
<tr>
<td>Don't Know</td>
<td>17%</td>
</tr>
</tbody>
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N=288

Percent of Organizations that Expect to Qualify for Stage 2 Meaningful Use

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Expect to Attest by End of 2014</td>
<td>71%</td>
</tr>
<tr>
<td>Expect to Attest in 2015</td>
<td>19%</td>
</tr>
<tr>
<td>Expect to Attest in 2016</td>
<td>2%</td>
</tr>
<tr>
<td>Will Not Attest</td>
<td>4%</td>
</tr>
<tr>
<td>Don't Know</td>
<td>4%</td>
</tr>
</tbody>
</table>

N=288
Level of Investment Made by Healthcare Organizations in MU Stage 2

- No Additional Funds: 3%
- Under $250,000: 15%
- $250,000 to $499,999: 15%
- $500,000 to $999,999: 5%
- $1 to $2 Million: 9%
- $2 to $4 Million: 4%
- $5 to $9 Million: 1%
- $10 to $14 Million: 1%
- $15 to $19 Million: 0%
- $20 Million or More: 1%
- Not Applicable: 1%
- Prefer Not to Disclose: 9%
- Don't Know: 15%

N=258

Anticipated ROI for Meeting MU Stage 1 Requirements

- None: 1%
- Less than $2 Million: 24%
- $2 to $5 Million: 18%
- $4 to $6 Million: 11%
- $6 to $7 Million: 7%
- $7 to $9 Million: 6%
- $10 Million or More: 9%
- Not Applicable: 5%
- Prefer Not to Disclose: 11%
- Don't Know: 7%

N=258
Anticipated ROI for Meeting MU Stage 2 Requirements

- None: 1%
- Less than $2 Million: 37%
- $2 to $3 Million: 13%
- $4 to $5 Million: 3%
- $6 to $7 Million: 3%
- $8 to $9 Million: 3%
- $10 Million or More: 3%
- Not Applicable: 8%
- Prefer Not to Disclose: 9%
- Don't Know: 21%

N=258

Preparedness to Meet ICD-10 Conversion

- Yes: 92%
- No: 2%
- Don't Know: 6%

N=258
Level of Investment Made in ICD-10 Conversion

- No Additional Funds: 2%
- Under $250,000: 28%
- $250,000 to $499,999: 10%
- $500,000 to $999,999: 7%
- $1 to $2 Million: 11%
- $3 to $4 Million: 3%
- $5 to $9 Million: 4%
- $10 to $14 Million: 1%
- $15 Million or More: 0%
- Not Applicable: 2%
- Don’t Know: 24%

N=258

Expected Change in IT Staff in Next 12 Months

- Increase: 39%
- No Change: 48%
- Decrease: 6%
- Don’t Know: 4%

N=258
Number of IT FTEs Budgeted to be Added

<table>
<thead>
<tr>
<th>Number</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>None</td>
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<tr>
<td>One</td>
<td>22%</td>
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<tr>
<td>Two</td>
<td>14%</td>
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<td>Five</td>
<td>4%</td>
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<tr>
<td>Six</td>
<td>2%</td>
</tr>
<tr>
<td>Seven</td>
<td>2%</td>
</tr>
<tr>
<td>Eight</td>
<td>4%</td>
</tr>
<tr>
<td>Nine</td>
<td>4%</td>
</tr>
<tr>
<td>Ten</td>
<td>13%</td>
</tr>
<tr>
<td>More Than Ten</td>
<td>11%</td>
</tr>
<tr>
<td>Don't Know</td>
<td>11%</td>
</tr>
</tbody>
</table>

N=115

2013 IT Staffing Needs (Top Ten)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Application Support</td>
<td>30%</td>
</tr>
<tr>
<td>Network/Architecture Support</td>
<td>25%</td>
</tr>
<tr>
<td>Clinical Informatics</td>
<td>21%</td>
</tr>
<tr>
<td>IT Security</td>
<td>20%</td>
</tr>
<tr>
<td>Systems Integration</td>
<td>16%</td>
</tr>
<tr>
<td>User Training</td>
<td>13%</td>
</tr>
<tr>
<td>System Design/Implementation</td>
<td>12%</td>
</tr>
<tr>
<td>Help Desk</td>
<td>12%</td>
</tr>
<tr>
<td>PC/Server Support</td>
<td>12%</td>
</tr>
<tr>
<td>Regulatory/Compliance</td>
<td>10%</td>
</tr>
</tbody>
</table>

N=288
Additional Functions Managed by Senior IT Executives

- Telecommunications: 67%
- Medical/Clinical Informatics: 57%
- HIM: 22%
- Biomedical/Clinical Engineering: 16%
- Other: 18%

N=258

Projected Change in IT Operating Budget

- Increase: 65%
- No Change: 19%
- Decrease: 12%
- Don't Know: 4%

N=258
**Reason for Increase in Budget**

- Overall Growth in Number of Systems: 56%
- Need to Comply with Regulatory Changes: 45%
- Overall Budget Increase: 40%
- Need to Upgrade IT Infrastructure: 41%
- Additional Staffing to Comply with Regulations: 39%
- Increase in Long-Term IT Plan: 26%
- Addition of Facility/Business Unit: 23%
- Partnership with Other Organizations: 14%
- Recent Merger/Acquisition: 14%
- Ability to Prove ROI: 7%
- Competitive Market Threats: 7%
- Business Requirements to Invest in Business: 5%

N=192

**Reason for Decrease in Budget**

- Overall Budget Decrease: 55%
- Reduction in Hospital Revenues: 26%
- Deteriorating Financial Conditions: 24%
- Recent Merger/Acquisition: 5%
- Change in Strategic Plan: 3%
- Outsource IT Services: 3%
- Inability to Prove ROI: 0%
- Closing of Facility/Business Unit: 0%

N=37