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JUNE 9, 2011

2011 HIMSS Clinical Transformation Survey

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HIMSS Clinical Transformation Survey
Sponsored by McKesson

The HIMSS Clinical Transformation Survey sponsored by McKesson reports the opinions of industry professionals from healthcare provider organizations across the U.S. The study was designed to collect information in four key areas related to clinical transformation: measurement, governance/leadership, organizational behavior and data access.

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1. Executive Summary

Patient data, when used in conjunction with a patient's complete medical history or compared against a broader patient population has the ability to be a very powerful tool in improving the quality of care delivered. Clinical transformation involves assessing and continually improving the way patient care is delivered at all levels in a care delivery organization. This study suggests that provider organizations have a leadership commitment to create an environment that fosters that transformation, but need to improve the information capabilities and human resources to put that strategy into operation.

For instance, 86 percent of the 175 individuals responding to the 2011 HIMSS Clinical Transformation Survey indicated that their organization either has a clinical transformation team in place or is presently developing such a team. Additionally, only 12 percent of respondents noted that organizational commitment is a barrier with regard to being able to report on quality measures. Organizations are also sharing information with those that need to have access to it. At least three quarters of respondents reported that organization executives and/or board members have access to scorecards and/or dashboards that contain either clinical or financial data.

Despite a high level of executive support, there are numerous improvements that organizations can take to enhance their ability to use clinical and financial data to improve patient outcomes. For instance, data is not always available in a way that facilitates easy access and reporting. Only 35 percent of respondents presently import data into a data warehouse and nearly half of respondents noted that they rely on interfaces to assist with integration. Since not all data is available in an electronic fashion with discrete data elements, reviewing charts by hand is still a key means for measuring clinical quality. Finally, having the correct resources in place to improve reporting capability is an issue. Nearly two-thirds of respondents noted that their organization needs additional resources in order to report appropriately on quality measures.

Other key survey results include:

Clinical priorities: Nearly half of respondents indicated that their organization was presently focused on ensuring that a fully operational electronic health record (EHR) is in place.

Key drivers for addressing quality metrics: While meaningful use/ARRA is the influencer driving which quality metrics to address, the choices made by healthcare organizations are also driven by other federal efforts, The Joint Commission and other quality initiatives.

Improved outcomes: Organizations are not only using the analysis of clinical and financial data to improve quality and efficiency of care, but to control costs and improve revenue, as well.

Barriers: Respondents were most likely to identify the fact that data are not captured in discrete fields and that data are not defined consistently as key barriers to the capture and use of clinical data for quality metrics.

Clinical transformation teams: While nurses and physicians are well represented on clinical transformation teams, one-third of respondents noted that this team was lead by a member of the executive office.

Organizational changes: As organizations are evaluating how to use IT to effectively implement clinical and quality improvement efforts, more than 80 percent are evaluating clinical workflow and process.

Addressing change management: Three-quarters of respondents rely on education and training to address change management issues.

Data validity: On average, respondents indicated that the clinical data used by their organization for quality reporting purposes has a reasonable level of validity (5.13[1]).

2. Methodology

A total of 175 valid responses were received for this survey, which was collected via a Web-based survey. HIMSS and McKesson both issued invitations to the target audience which included their members and clients. Invitations were also offered by other industry groups such as ISMP and NPSF. Data was collected between March 10 and April 15, 2011.

3. Profile of Survey Respondents

Respondents from a variety of healthcare organizations were invited to participate in this research. Approximately half of the respondents (44 percent) reported that they work for a hospital that is part of an integrated delivery system (IDS) and another 21 percent work for a stand alone hospital. Nearly one-quarter of respondents (21 percent) reported that they work at the corporate offices of a healthcare system. The remaining respondents work for either an ambulatory care facility (five percent), home health/hospice (two percent) long-term care/skilled nursing facility (one percent) or other facility.

The majority of respondents (85 percent) indicated that they work for a not-for-profit healthcare organization. Eight percent work at a for-profit public organization and six percent work at a for-profit private organization.

This research included respondents holding a wide variety of job titles. The most frequently reported job titles were Chief Information Officer (CIO)/Vice President of IT (17 percent), Director-Level IT/IS Executives (15 percent) and Manager-Level Nursing Informatics Professionals (13 percent). While no other job title was reported by at least 10 percent of respondents, the study contains a wide variety of clinical and information technology professionals.

In order to be included in this research, respondents had to play some role in the clinical informatics environment at their organization. Listed in Table One below are the criteria for inclusion in this study. Individuals who answered "yes" to at least one of the below areas were included in the final analysis. Those answering "no role" were excluded from the study and are not included in the final analysis.

[1] Using a seven point scale, where one is not at all valid and seven is highly valid.

Criteria	Percent
Part of group/team responsible for developing the organization's clinical IT strategy	70.86%
Part of a group/team responsible for measuring clinical outcomes for my organization	49.14%
I am a project champion for IT at my organization	43.43%
I lead clinical IT implementation at my organization	37.71%
Responsible for developing clinical IT strategy	19.43%
Responsible for measuring clinical outcomes for my organization	6.29%
Responsible for nursing operations at my organization	5.71%
Responsible for medical affairs operations at my organization	3.43%
Responsible for pharmacy operations at my organization	1.71%
Responsible for regulatory compliance and/or accreditation at my organization	0.00%
No Role	0.00%
Other	5.71%

Table One

Finally, respondents were asked to identify the region of the country in which they work. Nearly one-quarter of respondents (21 percent) reported that they work in the South Atlantic region. Another 18 percent work in the East North Central. Respondents were least likely to report that they work in the Mountain region.

4. Definition of Clinical Transformation

In order to level-set respondents, the survey contained the below definition of clinical transformation, which was jointly developed by executives from HIMSS and McKesson.

Clinical transformation: Clinical transformation involves assessing and continually improving the way patient care is delivered at all levels in a care delivery organization. It occurs when an organization rejects existing practice patterns that deliver inefficient or less effective results and embraces a common goal of patient safety, clinical outcomes and quality care through process redesign and IT implementation. By effectively blending people, processes and technology, clinical transformation occurs across facilities, departments and clinical fields of expertise.

The goal of this survey is to learn about the strategies that healthcare organizations are using to leverage clinical processes, organizational behavior and emerging technologies in the current healthcare environment to drive transformation. General themes include:

- Measurement – what measures are important and how are they defined? Are they relevant to the organization or driven by the federal government?
- Governance and Leadership – who leads the process? What is the leadership philosophy? Is measurement driven by a strategic plan?
- Organizational Behavior – how are people incented to improve; what are the barriers? Is there a culture of ownership that makes quality a matter of practice and not an afterthought?
- Data Access – how do you address data relevance, validity and access?

The remainder of this paper is going to address clinical transformation in the context of the four areas identified above.

5. Measurement

As noted in the definition crafted for this survey, measurement relates to the measures that healthcare organizations use to evaluate their performance with regard to improving the way that patient care is delivered across all levels of care delivery and how these might be driven by external sources.

In order to evaluate the ways in which organizations measure their performance, it is first important to identify the current clinical IT focus of healthcare organizations. Nearly half of respondents (49 percent) indicated that their organization was presently focused on ensuring that a fully operational EHR is in place. Least frequently identified was installing PACS technology. For a full list of the areas of clinical focus, please see Table Two below.

Clinical Focus	Percent
Ensuring the organization has fully operational EHR in place	49.14%
Linking clinical systems with quality measures and outcomes	12.57%
Installing a CPOE application	9.14%
Clinical decision support	4.00%
Establishing clinical protocols for use within the clinical decision support systems	3.43%
Focus on closed loop medication administration	3.43%
Certification of our EHR system and modules	1.71%
Focus on data warehouse/business intelligence	1.14%
Installing or upgrading ancillary applications	1.14%
Installing or upgrading a clinical data repository	1.14%
Installing PACS (radiology or cardiology)	0.57%
Other	10.86%
Don't Know	1.71%

Table Two

Enhanced clinical systems exponentially increase the amount of clinical information that is available to healthcare organizations. Respondents widely report that they share analysis of both key clinical and financial data with internal stakeholders.

At this time, organizations are using the analysis of clinical and financial data to improve outcomes in a number of areas, not only to improve healthcare, but also to control costs. With regard to improving healthcare, 91 percent of respondents noted that they are using clinical and financial information to drive improved quality of care and 79 percent use this information to improve efficiency of care. With regard to financial concerns, 76 percent of respondents reported that their organizations are leveraging financial and clinical data to reduce costs and another 69 percent reported that analyzing this type of information will improve revenue.

Respondents were asked to evaluate a variety of drivers which could impact the choice of quality measures addressed at their organizations. The average and median score for each measure, using a one to seven scale, where one is not at all important as a driver and seven is highly

important as a driver is shown in Table Three below. All of the metrics had an average score of approximately five, indicating that internal drivers such as an organization's strategic plan are just as important when determining which metrics to evaluate as are external factors such as the directives put forth in the American Recovery and Reinvestment Act of 2009 (ARRA).

Driver	Average	Median
Meaningful Use/ARRA	5.63	7.00
Other federal initiatives	5.55	6.00
The Joint Commission	5.49	6.00
Our strategic plan	5.44	6.00
Other quality Initiatives	5.34	6.00
Known trends at our organization	5.23	5.00
National Quality Forum	5.22	6.00

Table Three

One reason that both internal and external factors may be given the same importance as a driver is that nearly half of respondents (42 percent) noted they have revised their organizational policies/procedure regarding quality metrics as a result of the current legislative environment, of which ARRA is a leading component. Another seven percent noted that the current legislative environment has prompted their organization to establish a policy on quality measures for the first time. About one-third noted that clinical data was already being captured for analysis and this collection was not impacted by legislation or regulations.

Respondents are using a variety of sources to measure clinical quality. The most widespread method deployed for measuring clinical quality is the use of hand collected data and chart reviews; this method was identified by 79 percent of respondents. A similar percent (77 percent) noted that their organization has deployed benchmarking metrics to other organizations. About two-thirds of respondents noted that regional/national databases are used for measuring clinical quality. Less frequently used, but still widespread, are business intelligence tools (58 percent) and electronic data warehouse platforms (55 percent).

Data that has been analyzed is of no value unless it is shared with key stakeholders in the healthcare organization. In this sample, nearly all respondents (99 percent) indicated that they share clinical information with key internal stakeholders. A similar number of respondents (98 percent) indicated that financial information is shared with key internal stakeholders.

Clinical information is most widely shared with clinical executives. Three-quarters of respondents (78 percent) noted that the clinical executives at their organization have access to clinical information through a scorecard and/or dashboard. A similar percent (75 percent) indicated that organization executives and/or board members have similar access. Distribution of clinical information is much less widespread across the entire organization, however, as only 49 percent of respondents indicated that clinical information is available to all employees via a scorecard and/or dashboard.

Organization executives and/or board members are given more widespread access to financial data, as 82 percent of respondents noted that this information is made available via a scorecard and/or dashboard. At the other end of the spectrum, only 29 percent of respondents noted that scorecards/dashboards containing financial information are made available to all employees. A full list detailing access can be found in Table Four below.

Groups with Which Data is Shared	Access to Clinical Information	Access to Financial Information
Organization executives/board members have access to scorecards/dashboards	75.43%	81.71%
Clinical executives have access to scorecards/dashboards	77.71%	68.57%
Unit-level information is shared down to the supervisor level	72.00%	51.43%
Scorecards/dashboards are available for all employees to see	48.57%	29.14%
Other	3.43%	2.29%
Don't Know	6.29%	8.57%

Table Four

Despite the fact that clinical and financial data are widely shared, they are rarely presented together in the same view/format. Only one quarter of respondents (25 percent) reported this to be the case. Additionally, about half of the respondents reported that distribution of these reports is automatic; 53 percent noted that reports containing analysis of clinical and financial information are automatically run and disseminated. However, slightly more than one quarter of respondents noted that they have to request these reports.

There are a number of barriers with regard to the capture of clinical data that may impact the use of this data for quality measures. While respondents were most likely to report that data not being captured in discrete data fields was a barrier, there were a number of other areas that were also considered barriers. These are shown below in Table Five.

Barriers	Percent
Data are not captured in discrete fields	60.00%
Data are not defined consistently	55.43%
Systems' reporting tools are inadequate for our needs	54.29%
Data are not in an electronic format	52.00%
Potential for human error in data entry	52.00%
Other	9.14%
Don't Know	2.86%
No Barriers	0.57%
Total	100.00%

Table Five

In order to ensure that the data that are generated and distributed are reviewed and utilized, healthcare organizations are taking a multi-phased approach to inform their employees about the information. Two-thirds of respondents rely on more than one of the methods identified in this report to inform their staff about the availability of reports containing clinical and financial information. Respondents were most likely to report (81 percent) that their organization relies on departmental meetings for reviewing the data. Slightly more than half (54 percent) noted that their organizations offer educational programs for this purpose. One-quarter of respondents rely on each of the following methods; peer review, financial incentives or conducting audits of the use of information.

About half of respondents (53 percent) noted that their organization has been able to document efficiencies and cost savings related to clinical quality. Quite a few respondents focused specifically on clinical areas in which they had been able to document savings. In general, respondents cited improvements in HEDIS measures and SCIP measures. Respondents also cited a wide variety of specific areas in which improvement had been made, such as a reduction in medication errors, fall risks and improved sepsis care. Respondents also identified a number of areas in which increased clinical quality yielded costs savings, including decreased length of stay, hospital readmissions and improvements in hospital-acquired infections.

6. Governance and Leadership

As noted in the beginning of the report, governance and leadership addresses issues such as who leads the charge; what is the leadership philosophy and whether or not measurement is driven by a strategic plan? In general, respondents believe they have a good level of executive support for clinical transformation at their organization. On a scale of one to seven, where one is a complete lack of support and seven is the highest level of support, respondent recorded an average score of 5.51.

Slightly more than three-quarters of respondents (78 percent) noted that their organization has a formal leadership team in place that addresses clinical transformation and another eight percent indicated that their organization is in the process of developing a team. The length of time that organizations have had this type of team in place varies widely. Approximately one-third of respondents with a team in place reported that the team has been active for one year or less. Conversely, 35 percent of respondents noted that their team has been in place for five years or longer.

Nearly all respondents who work for an organization with a clinical transformation team (97 percent) noted that this team included either a physician or nursing representative. A full list of the types of individuals who participate in clinical transformation teams is listed in Table Six below.

Individual	Percent
Chief Nursing Officer/Chief Nursing Informatics Officer	82.58%
Chief Medical Officer/Chief Medical Information Officer	74.24%
Other Nursing Representatives	68.18%
Other Physician Representatives	60.61%
Chief Information Officers	56.06%
Non-clinical/IT Executives (CEO/CFO/COO)	55.30%
Other Health Professionals (i.e. Pharmacy)	49.24%
Other IT/IS Representatives	48.48%
Chief Financial Officer/VP of Finance	38.64%
Other	6.06%
Don't Know	0.76%

Table Six

Respondents that either have a clinical transformation team in place or are developing a team were most likely to report (38 percent) that an individual from the executive office is responsible

for leading the team. Another third noted that a clinician had responsibility for leading the team.

Slightly more than half of respondents (57 percent) noted that the clinical transformation team has implemented clinical transformation initiatives. The same number of respondents also indicated that clinical transformation is a part of the organization's strategic plan. Another quarter (23 percent) indicated that they are evaluating organizational policy with regards to clinical transformation.

In addition to the presence of a clinical transformation team, respondents were asked to identify ways in which their organization is approaching clinical transformation. Two-thirds of respondents (66 percent) reported that their organization has a strategic commitment to clinical transformation. At least 60 percent of respondents also noted that their organization has either appointed a clinical champion (63 percent) or made changes in their IT system related to clinical transformation efforts (60 percent). Respondents were least likely (23 percent) to report that additional staff was going to be hired at their organization. A full list of tactics for addressing clinical transformation is located in Table Seven.

Tactics For Addressing Clinical Transformation	Percent
Strategic Commitment	66.29%
Clinical Champion	62.86%
Changes in IT Systems	60.00%
Senior Executive Champion	54.86%
Utilizing National Standards, Guidelines, and/or Evidence-Based Best Practices	52.57%
Process Change	50.86%
Identification of Success Metrics	44.00%
Budget Allocation	41.71%
Hiring Additional Staff	23.43%
Don't Know	10.29%
Other	2.86%
Not Addressing	1.71%

Table Seven

Despite organizational support for clinical transformation, there are gaps and barriers to being able to accomplish goals and objectives in this area. For instance, nearly three-quarters of respondents noted that they needed additional IT resources in order to report on quality measures. This was closely followed by additional staff (61 percent) and more money (58 percent). Only four percent of respondents indicated that they don't need additional resources.

In addition, two-thirds of respondents directly noted that while they had staff qualified to report on quality measures, the staff simply did not have the time needed to do everything that was necessary to create these reports. Other respondents (43 percent) noted that their organization's priorities were focused elsewhere.

7. Organizational Behavior

As defined in the study, organizational behavior relates to how people are incented to improve and what barriers exist to assess and improve the way patient care is delivered at all levels in a

care delivery organization. This focus area also examines whether or not a culture of ownership exists that makes quality a matter of practice and not an afterthought. One of the components this study focuses on with regard to organizational behavior is the use of information technology to facilitate data analysis and management.

Nearly all respondents (87 percent) indicated that their organization leverages technology to standardize and automate practices, such as the standardization of the format of a discharge summary, to enable additional focus on new quality initiatives. These respondents were also asked if they were leveraging data from diverse information sources to measure quality. Approximately half of respondents (53 percent) noted that they have created interfaces to support integration. Another third (35 percent) noted that their organization imports all data into a data repository/warehouse. Respondents were least likely (16 percent) to report that their organization used standards-based interoperability specifications to leverage data to measure quality.

Only 12 percent of the respondents that are leveraging technology to standardize and automate practices reported that the tools they use are fully integrated into their EMR. Approximately half (55 percent) reported that these tools are partially integrated and 13 percent reported that these tools are not automated with organizational EMRs.

Respondents were also asked to identify the tools used to facilitate quality reporting. Two-thirds of respondents reported using Microsoft Office products to facilitate this type of reporting and 60 percent reported that they use tools provided by their vendors. A full list of the spectrum of tools being used is provided in Table Eight below.

Tools Used for Quality Reporting	Percent
Microsoft Office Products	65.71%
Tools Provided Through Our Software Vendors	60.00%
Business Intelligence Tools	54.29%
Manual Analysis	43.43%
Self-Developed System/Technology	28.57%
Other Type of Add-On Analytics Package	24.00%
Statistical Software Package	23.43%
Other	5.71%
Don't Know	5.14%

Table Eight

As this table suggest, 43 percent of respondents are using manual analysis to facilitate quality reporting. However, a closer look at the data suggests that only two percent of respondents are solely relying on manual means to analyze their data. Most of those that use manual analysis use this to complement other types of analysis.

However, respondents don't believe that they are highly nimble with regard to the ability to respond to evolving changes/measures. On a scale of one to seven, where one is a very slow level of responsiveness and seven is highly responsive, respondents recorded an average score of 4.58. Nearly two-thirds of respondents noted that they are required to work with their vendor to make changes to their clinical IT systems in order to improve reporting capabilities. Another 54 percent of respondents indicated that the organization's IT staff has this responsibility. Only ten

percent of respondents noted that users are able to configure clinical IT systems to improve reporting capabilities.

In addition, respondents were asked to identify the areas their organization was evaluating with regard to the design and use of IT when implementing clinical and quality improvement efforts. Clinical workflow was identified most frequently, followed by clinical process. Each of these areas was selected by more than 80 percent of respondents. Least frequently identified was patient room design/layout. A list of the responses to all of the items in this question is included in Table Nine below.

Areas of Evaluation	Percent
Clinical workflow	86.29%
Clinical process	82.29%
Software and hardware	78.86%
Point of care technology	72.00%
Nursing workstation design/placement	34.86%
Patient room design/layout	33.14%
Don't know	5.14%
Other	1.14%

Table Nine

Respondents were asked to identify the steps that were being taken at their organization to address change management issues relative to clinical outcomes. About three-quarters of respondents noted that they rely on education and/or training for this. Nearly two-thirds (62 percent) reported that their organization measures outcomes by unit or department. One-third make resources available via the Internet and one-quarter conduct focus groups to gain information in this area. Only one percent of respondents noted that their organization is taking no steps in this area.

As data continually evolves, it may become necessary to implement new standard practices for quality reporting. Half of the respondents indicated that it takes six months or less to put a new standard practice in place at their organization. Other organizations are less nimble. Nearly ten percent reported that it takes their organization nine to 12 months to make this happen and for six percent it takes more than 12 months to put a new standard practice in place.

8. Data Access

This area focuses on how organizations are addressing the relevance, validity and access to information that is needed to facilitate the measures needed to ensure that organizations are able to assess and continually improve the way patient care is delivered at all levels in a care delivery organization.

On a one to seven scale, where one is not at all valid and seven is highly valid, on average respondent indicated that the clinical data used by their organization for quality reporting purposes has a reasonable level of validity (5.13).

Using a scale where one is no agreement and seven is a high level of agreement respondents were also asked to indicate whether or not there is agreement among organizational leaders regarding the validity of quality data. An average score of 5.28 was recorded for this question.

Similarly, respondents were asked to identify whether there is agreement among staff with regard to validity of data. Using the same one to seven scale, respondents recorded an average score of 4.98.

Finally, respondents were asked to rate the ability of their organization to access clinical data for quality reporting purposes. Again using a one to seven scale, where one is the lowest ranking and seven is the highest ranking, respondents recorded an average score of 4.42.

9. Conclusion

Patient data, when used in conjunction with a patient's complete medical history or compared against a broader patient population has the ability to be a very powerful tool in improving the quality of care delivered. Clinical transformation involves assessing and continually improving the way patient care is delivered at all levels in a care delivery organization. This study suggests that organizations are beginning to put in place the tools needed to create an environment that fosters clinical transformation. Indeed, only 12 percent of respondents noted that organizational commitment was a barrier with regard to being able to report on quality measures.

Additionally, most of the respondents reported that their organization either has a clinical transformation team in place or is in the process of establishing such a team. Organizations are also sharing information with those that need to have access to it. At least three quarters of respondents reported that organization executives and/or board members have access to scorecards and/or dashboards that contain either clinical or financial data. Despite this, there are numerous improvements that organizations can make to enhance their ability to use clinical and financial data to improve patient outcomes.

First, all organizations need to have a clinical transformation team in place to evaluate potential improvements in care delivery. These teams need not only to have representation from physicians and nurses, but they also need to have a clinical executive leading the team. Presently, these teams have the representation from clinicians, but only about one-third of respondents noted that leadership was provided by clinical executives.

Second, in order to analyze data, it needs to be captured and available in a way that promotes analysis. Presently, only 35 percent of respondents indicated that the data at their organization are imported into a data repository/data warehouse. In addition, nearly half of respondents noted that they rely on interfaces to assist with integration.

Third, many organizations continue to rely on manual processes to analyze data. While only two percent of respondents rely solely on manual analysis to evaluate data, more than 40 percent rely on some level of manual analysis to facilitate quality reporting. In addition, the most widespread method deployed for measuring clinical quality is the use of hand collected data and chart reviews. Manual processes for capturing, collating and analyzing data may be a response to the lack of electronic means to conduct these functions, which is supported by the fact that nearly three-quarters of respondents noted that they needed additional IT resources in order to better report on quality measures.

Having the staff required to improve the reporting capability is also a barrier. Nearly two-thirds of respondents noted that their organization needs additional resources in order to report appropriately on quality measures. This is of particular concern, because many respondents also noted that one of their key gaps to reporting on these measures wasn't a lack of knowledge

about the meaningful use requirement or a lack of organizational commitment, but rather that the staff at the organization just doesn't have the time needed to do everything that is necessary. This becomes a particular concern when hospital executives don't have direct access to quality reports or specialized IT staff has to intervene to develop reports because the staff running the reports do not have the authority to directly create them.

10. About HIMSS

HIMSS is a cause-based, not-for-profit organization exclusively focused on providing global leadership for the optimal use of information technology (IT) and management systems for the betterment of healthcare. Founded 50 years ago, HIMSS and its related organizations have offices in Chicago, Washington, DC, Brussels, Singapore, Leipzig, and other locations across the United States. HIMSS represents more than 30,000 individual members, of which two thirds work in healthcare provider, governmental and not-for-profit organizations. HIMSS also includes over 470 corporate members and more than 85 not-for-profit organizations that share our mission of transforming healthcare through the effective use of information technology and management systems. HIMSS frames and leads healthcare practices and public policy through its content expertise, professional development, and research initiatives designed to promote information and management systems' contributions to improving the quality, safety, access, and cost-effectiveness of patient care. To learn more about HIMSS and to find out how to join us and our members in advancing our cause, please visit our website at www.himss.org.

11. About McKesson

McKesson Corporation, currently ranked 15th on the FORTUNE 500, is a healthcare services and information technology company dedicated to making the business of healthcare run better. We partner with payers, hospitals, physician offices, pharmacies, pharmaceutical companies and others across the spectrum of care to build healthier organizations that deliver better care to patients in every setting. McKesson helps its customers improve their financial, operational, and clinical performance with solutions that include pharmaceutical and medical-surgical supply management, healthcare information technology, and business and clinical services. For more information, visit http://www.mckesson.com.

12. 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 HIMSS Clinical Transformation Survey, sponsored by McKesson.

13. For More Information, Contact:

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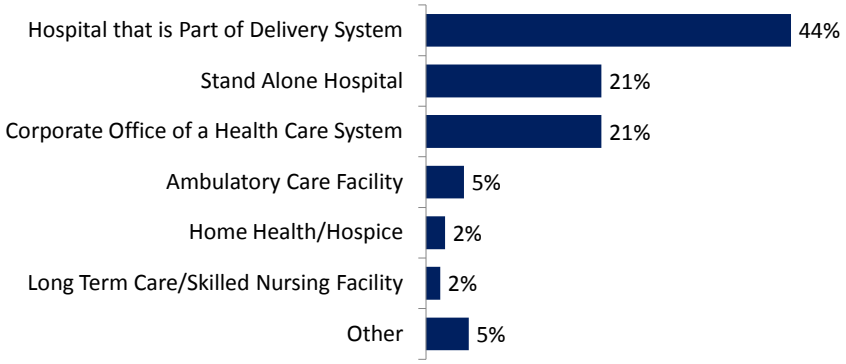
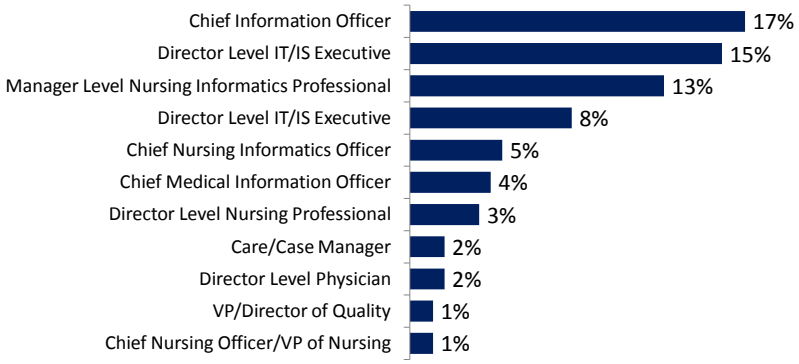
APPENDIX

Type of Organization

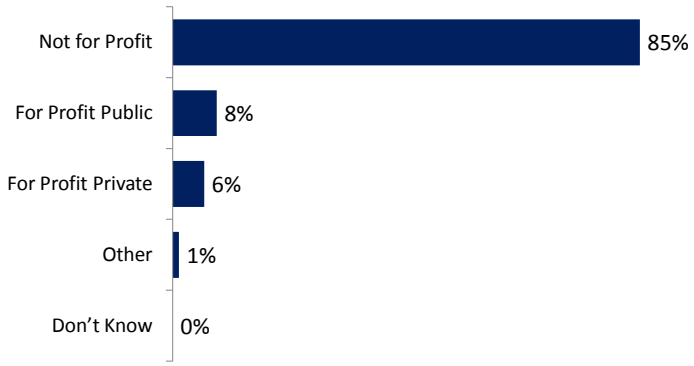


Respondent Title



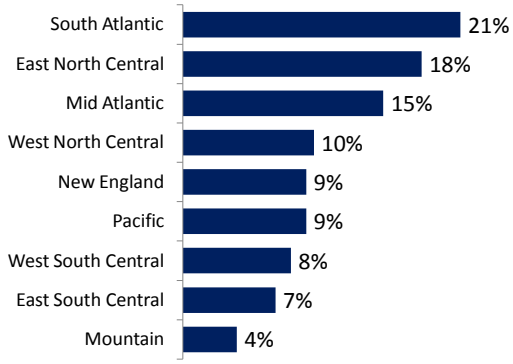
Includes only titles identified by at least one percent of respondents

Organization's Profit Status

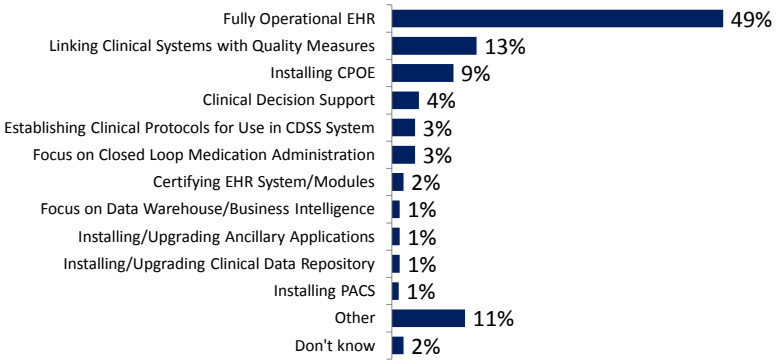


Level of Participation in Clinical Informatics

Region in Which Respondent Works

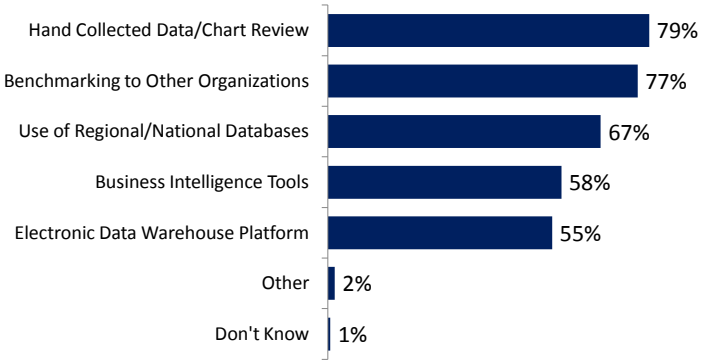


Primary Clinical IT Focus

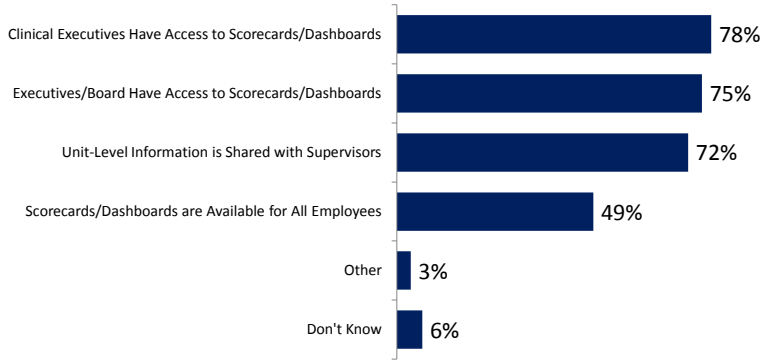


Importance of Drivers for Quality Measures

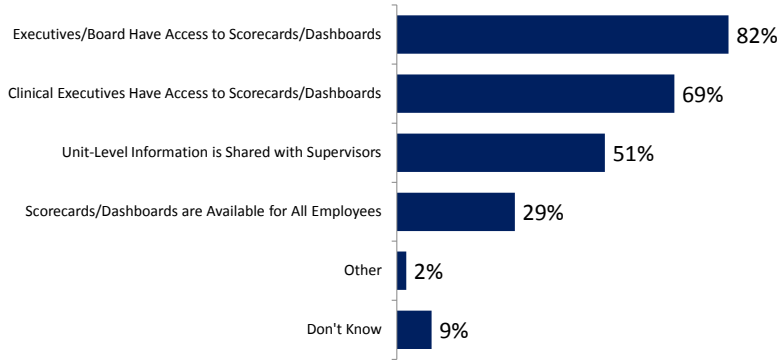
Methods Used to Measure Clinical Quality



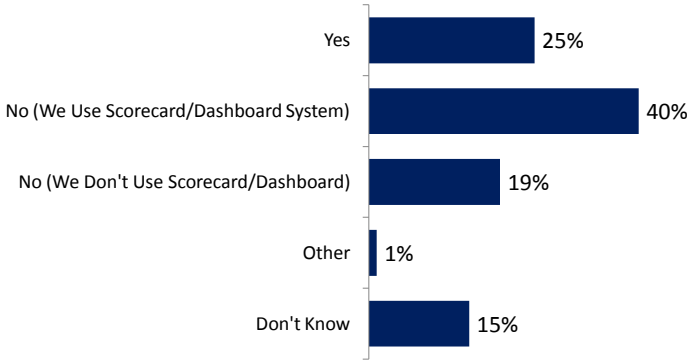
Organization's Willingness to Share Analysis of Key *Clinical* Information Internally



Organization's Willingness to Share Analysis of Key *Financial* Information Internally

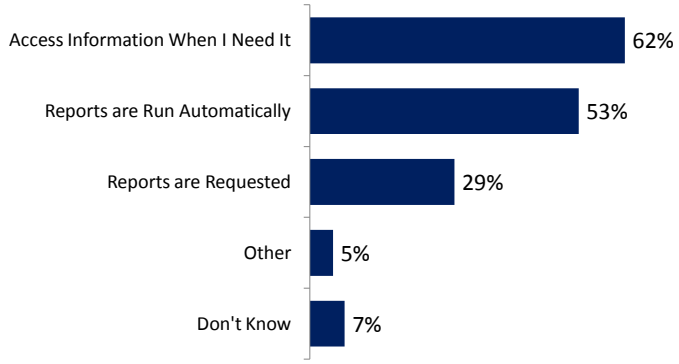


Presentation of Clinical and Financial Analysis in Same View/Format

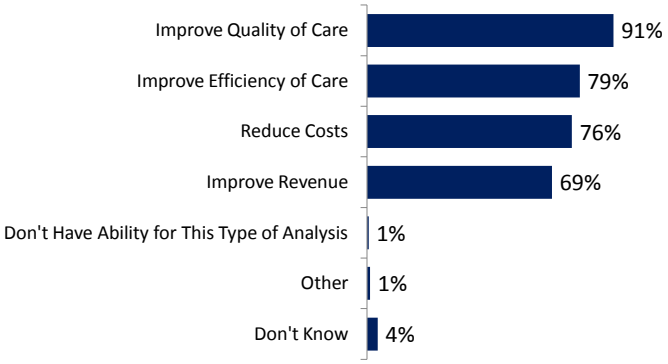


Methods Used to Ensure that Internal Stakeholders Review/Utilize Data Analysis

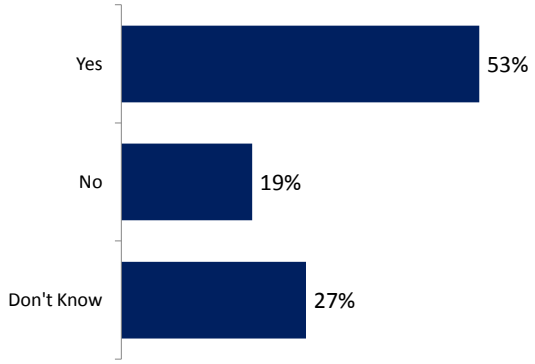
Means for Accessing Analysis of Clinical and Financial Information



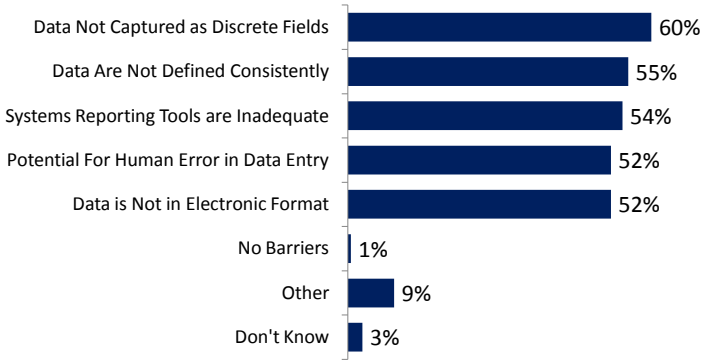
Organizational Use of Analysis of Clinical & Financial Information



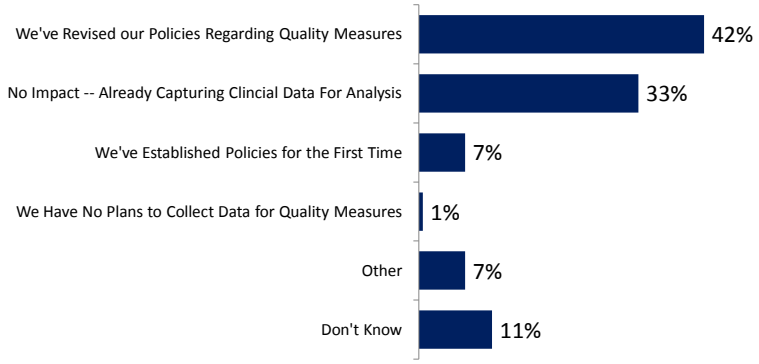
Documentation of Efficiencies & Cost Savings Related to Clinical Quality



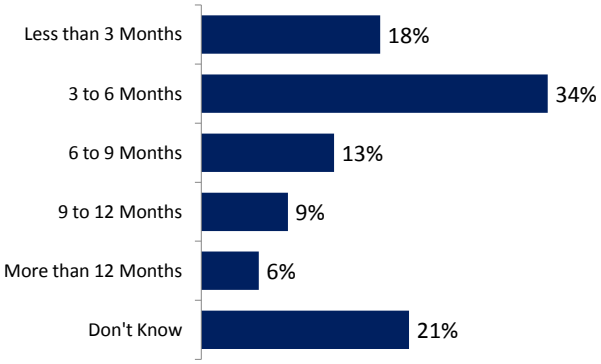
Barriers Faced with Regard to Capture of Clinical Information for Quality Measurement



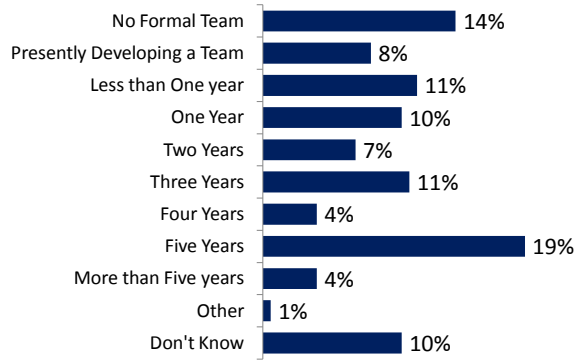
Impact of Legislation/Regulations on Organization's Policy Regarding Quality Measures



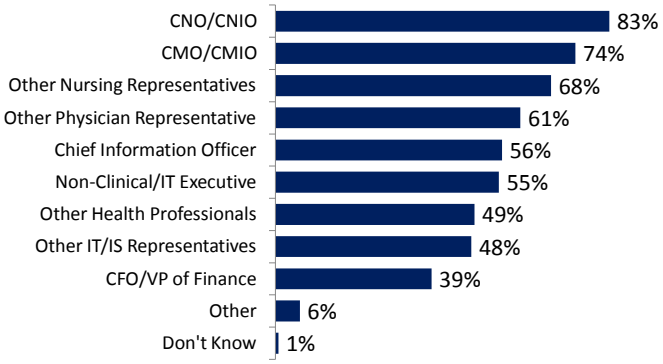
Length of Time To Institute a New Standard Practice for Quality Reporting



Length of Time a Formal Leadership Team that Addresses Clinical Transformation Has Been in Place



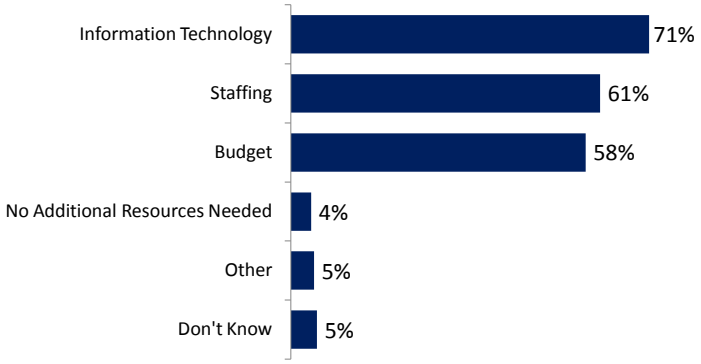
Individuals/Departments on Clinical Transformation Team



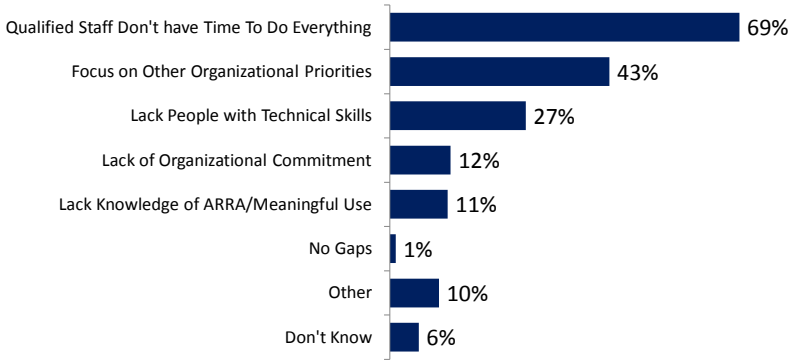
Responsibility for Leading Clinical Transformation Team

Means by Which Clinical Transformation Team is Addressing Clinical Transformation

Areas of Need to Support Improved Reporting on Quality Measures

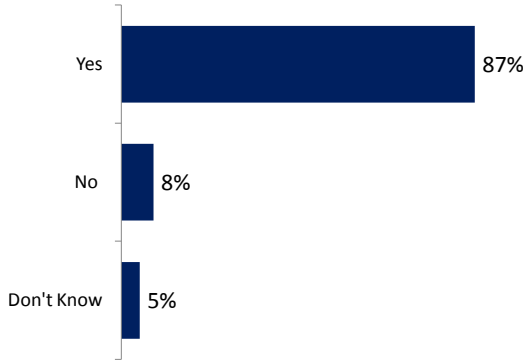


Gaps in Ability to Report on Quality Measures



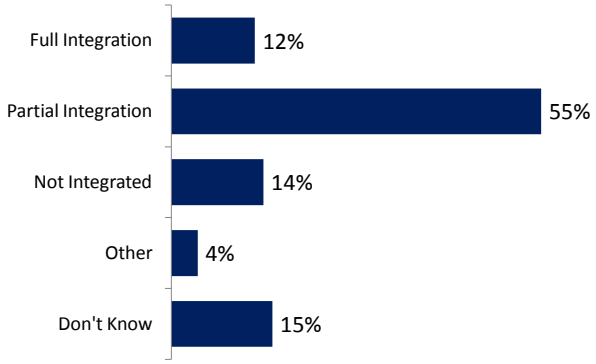
Organizational Approach to Clinical Transformation

Leveraging Technology to Standardize and Automate Practices

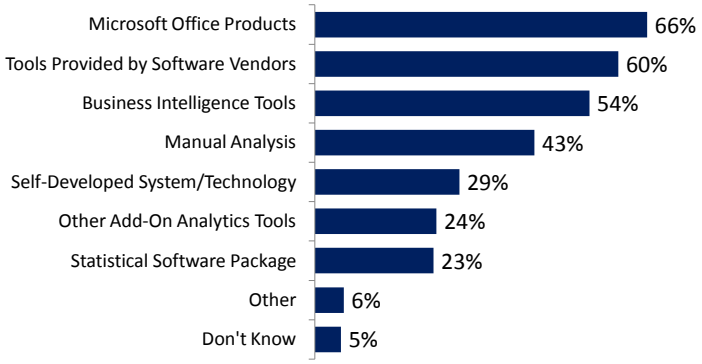


Means of Leveraging Data from Diverse Information Sources to Measure Quality

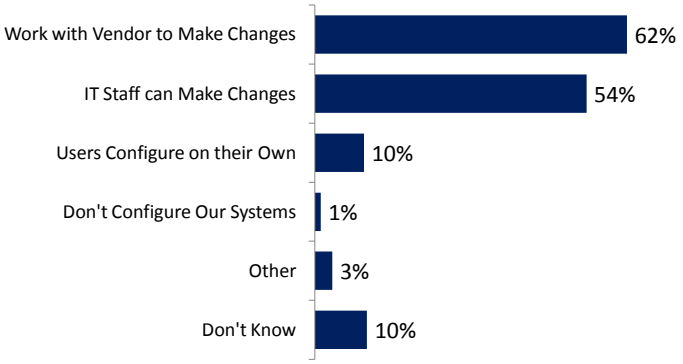
Integration of Tools with EMR



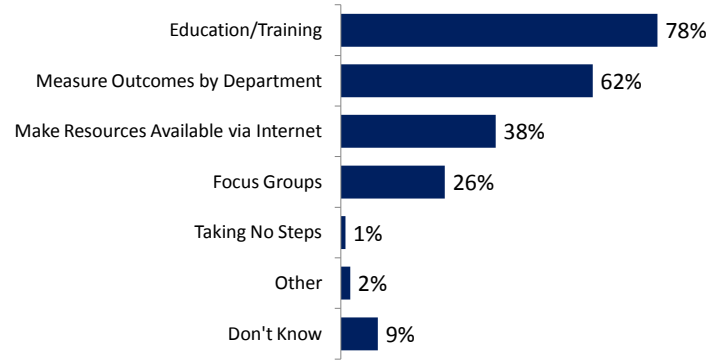
Tools Used to Facilitate Quality Reporting



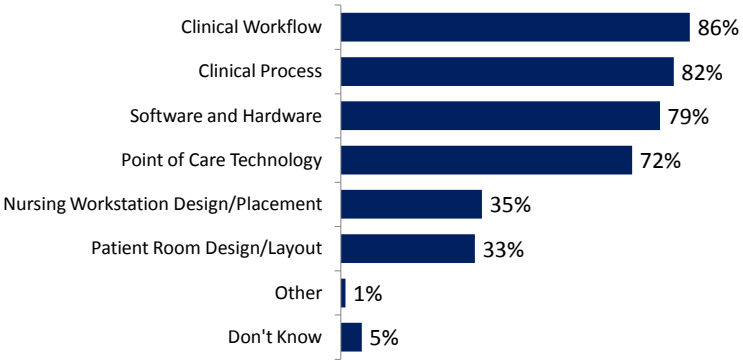
Ability to Modify Clinical IT Systems to Improve Reporting Capabilities



Steps Taken To Ensure that Organization is Addressing Change Management Issues



Areas Evaluated Related to Design/Use of IT When Implementing Improvement Efforts



Measures

Measure	Average	Median
Validity of Clinical Data for Reporting Purposes	5.13	5.00
Ability to Access Clinical Data for Reporting Purposes	4.42	5.00
Level of Agreement Among Leaders Regarding Validity of Data	5.28	5.00
Agreement of Staff Regarding Validity of Data	4.98	5.00

Timeliness of Data Needed to Impact Patient Care