

2011 EHR Future Roles Survey Report

Bentley Research Team

Donald R. Chand
IPM Department

Gary C. David
Department of
Sociology and IDCC

Balaji Sankaranarayanan
IPM Department



Jan 21, 2012

Executive Summary

The 2011 Future Roles Survey was conducted for AHDI by a team of researchers from Bentley University. The purpose of this report is to elaborate on the survey results, and to provide a perspective into the roles and responsibilities fulfilled by the different professionals in the EHR process life-cycle.

The survey questions along with subsequent modifications were provided by AHDI executives, with the online version designed and hosted by the Bentley research team. Data collection was conducted during fall 2011, with a total of 165 completed responses. The data was then analyzed by the Bentley research team to produce the report.

The respondent profile indicates that a majority of the respondents represent HIM management and medical transcription professions. The majority of the facilities represented in the survey are typically large, with in-patient beds greater than 100 or providing other services (such as large integrated hospitals).

Study findings indicate that the dictation-transcription method continues to be a dominant approach for creating EHR records. Physicians enter the most amount of patient-related information in online EHR systems.

HIM directors are responsible for almost the entire range of EHR life-cycle activities except EHR creation and coding. IT personnel are responsible for early life-cycle phases of EHR policy planning, EHR practices implementation, EHR template design, EHR user training and EHR ongoing support

Physicians, nurses, and physician assistants input EHR records, and involve themselves in EHR best practices and creating templates. HIM coders and chart analysts assist HIM directors in the later stages of the life-cycle once the EHR records is created, which includes checking errors, monitoring and ensuring compliance.

Demographics: Majority of respondents represent Medical Transcription or HIM Management.

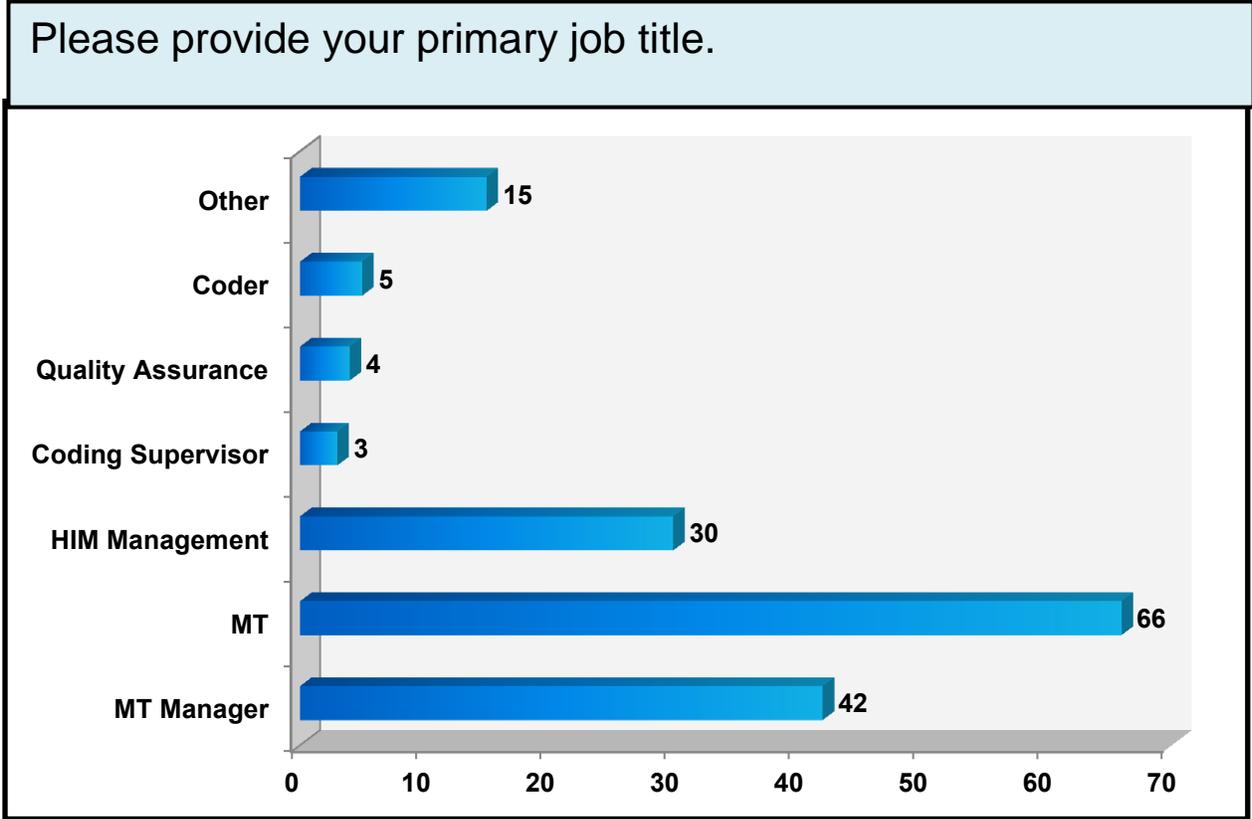
25.5% of the respondents are medical transcription supervisors/managers.

40% of the respondents are medical transcriptionists.

18% of the respondents represent HIM management (director/manager/supervisor).

1.8% of the respondents are coding supervisors, 2.4% of the respondents are quality assurance specialists and 3% of the respondents are coders.

In addition, 9% of the respondents are categorized as 'other': CEOs, project managers, nurses or owners of the company.



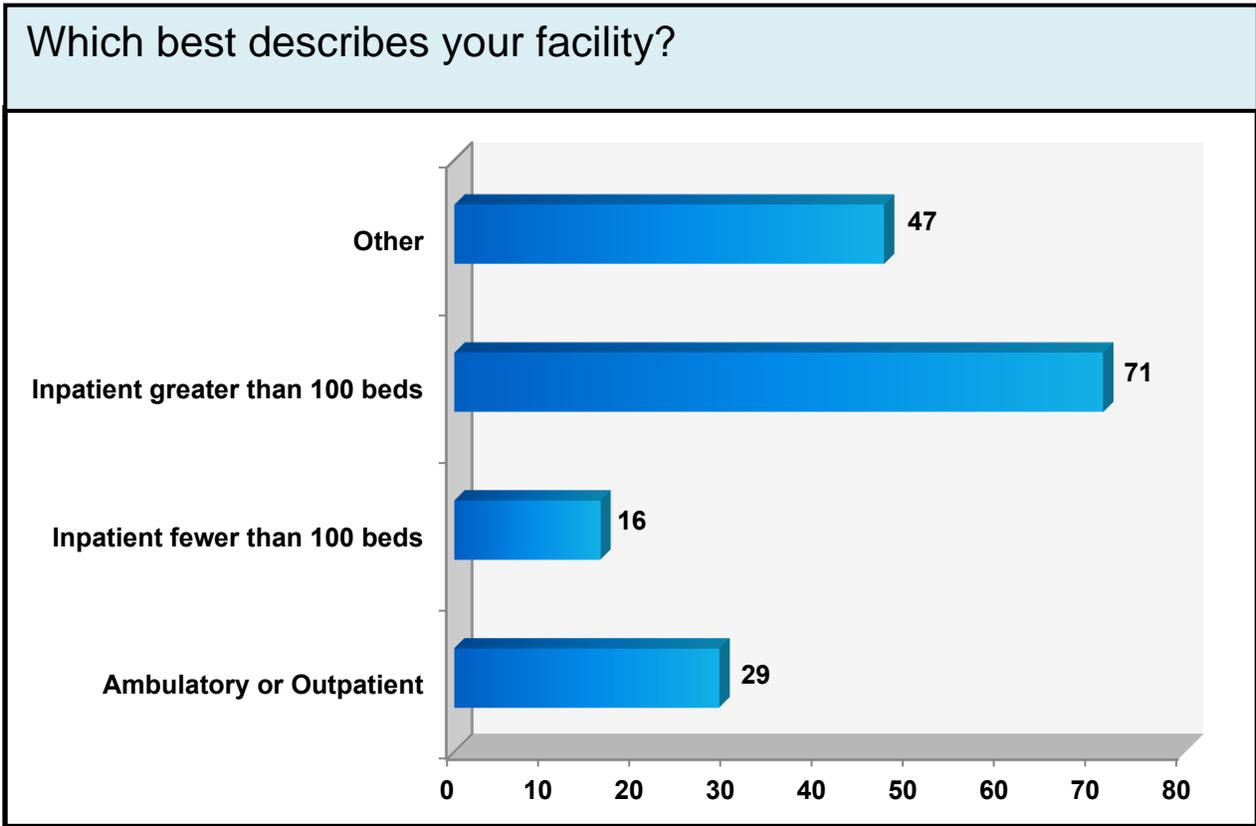
Demographics: Majority of the facilities represented in the survey are typically large (in-patient greater than 100 beds or providing 'other' services).

18% of the facilities are ambulatory or outpatient facilities.

16% of the facilities had in-patient services with fewer than 100 beds.

44% of the facilities had in-patient services with more than 100 beds.

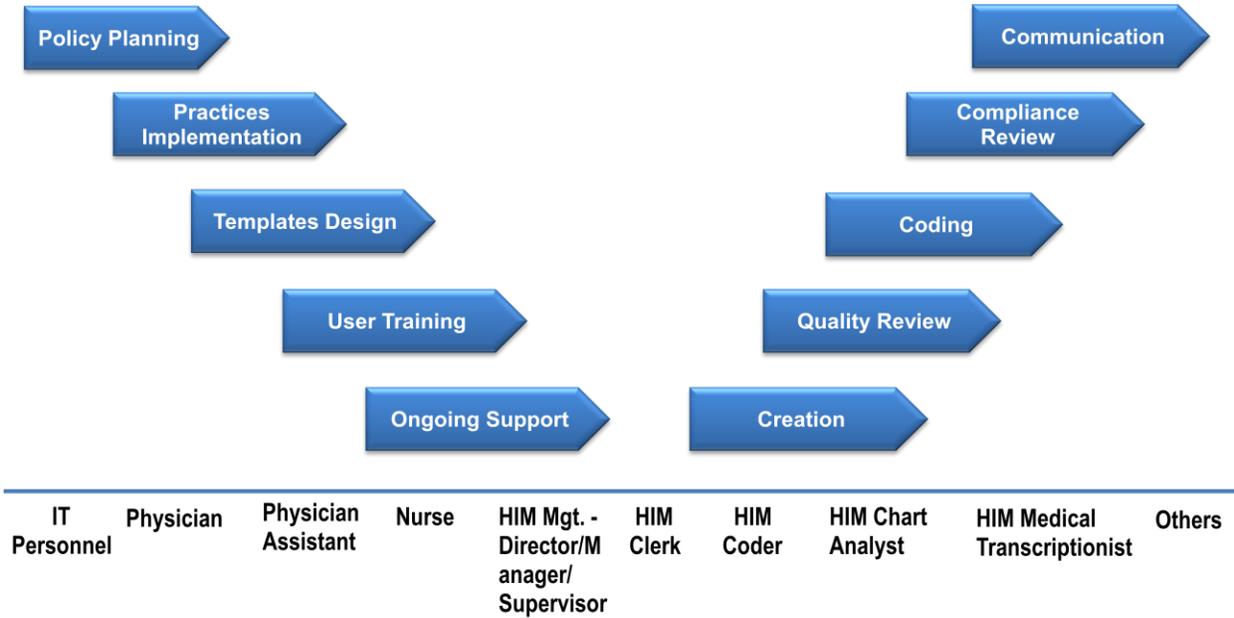
29% of the facilities were 'other'—The typical facilities in this category were combinations of ambulatory and in-patient services, large integrated care systems, and teaching hospitals.



ROLES IN ELECTRONIC HEALTH RECORDS CREATION

Health care is being transformed through online direct entry software systems for entering medical health information and creating electronic health records (EHRs). These next generation health record tools are transforming the processes of creating, organizing, and disseminating EHRs. Such is the impact that there is a need to understand how these EHR tools and systems are changing the roles and responsibilities of people who plan, implement, support, create, validate, code, aggregate, and use electronic health records.

To help understand how EHRs are impacting roles in health care, a survey was conducted with key personnel associated with the electronic records creation cycle. Roles in health care were stratified into 10 categories: 1) IT personnel, 2) physicians, 3) nurses, 4) physician assistants, 5) HIM (Health Information Management) directors/managers, 6) HIM clerks, 7) HIM coders, 8) HIM chart analysts, 9) HIM medical transcriptionists, and 10) other.



The directors, managers and leaders of health information management at large hospitals who are responsible for implementing EHR tools and systems and their use in creating EHRs were surveyed. The questions in the survey covered the EHR life cycle phases, namely EHR-system strategic planning, EHR-system regulatory compliance, EHR-system templates design, EHR-system users training and EHR-system ongoing

support, and EHR life cycle phases consisting of EHR creation, EHR quality review, EHR coding for billing, EHR compliance audit and EHR availability.

The primary findings, summarized below, are based on 165 respondents, with the detailed profile of each finding is discussed later in this report.

1. The dictation-transcription method continues to be a dominant approach for creating EHR records.
2. Physicians enter the most amount of patient-related information in online EHR systems.
3. HIM directors (60%-80%) and IT personnel (35%-45%) are responsible for developing and implementing EHR policies and procedures that meet regulatory requirements.
4. Those responsible for designing, testing, and implementing best practices in EHR use include IT personnel and HIM directors (60%-80%), physicians (35%-45%), and nurses (20%-35%).
5. IT personnel (60%-80%), HIM directors (35%-45%) and *physicians* (20%-35%) are responsible for creating EHR templates.
6. IT personnel (60%-80%) and HIM directors (35%-45%) are responsible for instructing and training new EHR users.
7. IT personnel (60%-80%) and HIM directors (35%-45%) are responsible for providing ongoing EHR user support.
8. Physicians, nurses, and physician assistants (60%-80%) are all responsible for entering information regarding a given critical encounter into an EHR system. In addition, HIM medical transcriptionists (35%-45%) are responsible for entering critical encounter information into an EHR system.
9. HIM directors and HIM chart analysts (35%-45%) are responsible for monitoring of EHR documentation to ensure accuracy and completeness. HIM medical transcriptionists, HIM clerical staff and HIM coders perform the task of monitoring EHR documentation to ensure accuracy and completeness less frequently (20%-35%).
10. HIM directors (35%-45%) are responsible for quality assessment reviews of EHR documents. In addition HIM chart analysts, HIM medical transcriptionists and HIM coders can perform quality assessment reviews (20%-35%).
11. HIM coders (60%-80%) are responsible for reviewing diagnosis and procedure codes in EHR documents for billing purposes.
12. HIM directors and HIM chart analysts (35%-45%) are responsible for utilization of EHR in assembling and analyzing medical documentation to improve patient care, compliance and safety.
13. HIM directors (45%-60%) are responsible for monitoring and reporting results of compliance assessment performed on EHR documentation.

14. HIM directors (60%-80%) are responsible for ongoing communication with medical staff regarding EHR documentation issues.
15. There is very high, high, or moderate likelihood that HIM directors are responsible for every life cycle phase except EHR creation and EHR coding.
16. There is very high or high likelihood that the IT personnel are responsible for early life-cycle phases of EHR policy planning, EHR practices implementation, EHR template design, EHR user training and EHR ongoing support.

The survey results are also presented in table format in Table 1 (see next page), which brings out the responsibilities of each role in EHR record creation life cycle. We ranked the level of responsibility as shown below.

Category	Percentage
Very Low	<20%
Low	20%–35%
Moderate	35%–45%
High	45%–60%
Very High	>60%

The category of 'very low' is not represented in the table since it was deemed as redundant information.

ROLES	IT	Physician	Physician Assistant	Nurse	HIM Director	HIM Clerk	HIM Coder	HIM Analyst	HIM MT	Other
Policy Planning	Moderate	Low			Very high					Low
Practices Implementation	Very high	Moderate		Low	High					
Templates Design	High	Low			Moderate				Low	
User Training	High				Moderate					Low
Ongoing Support	Very high				Moderate					Low
Creation		Very high	High	High					Moderate	
Quality Review					Moderate		Low	Low	Low	Low
Coding							Very high			
Compliance					High					Low
Communication	Low				Very High					Low

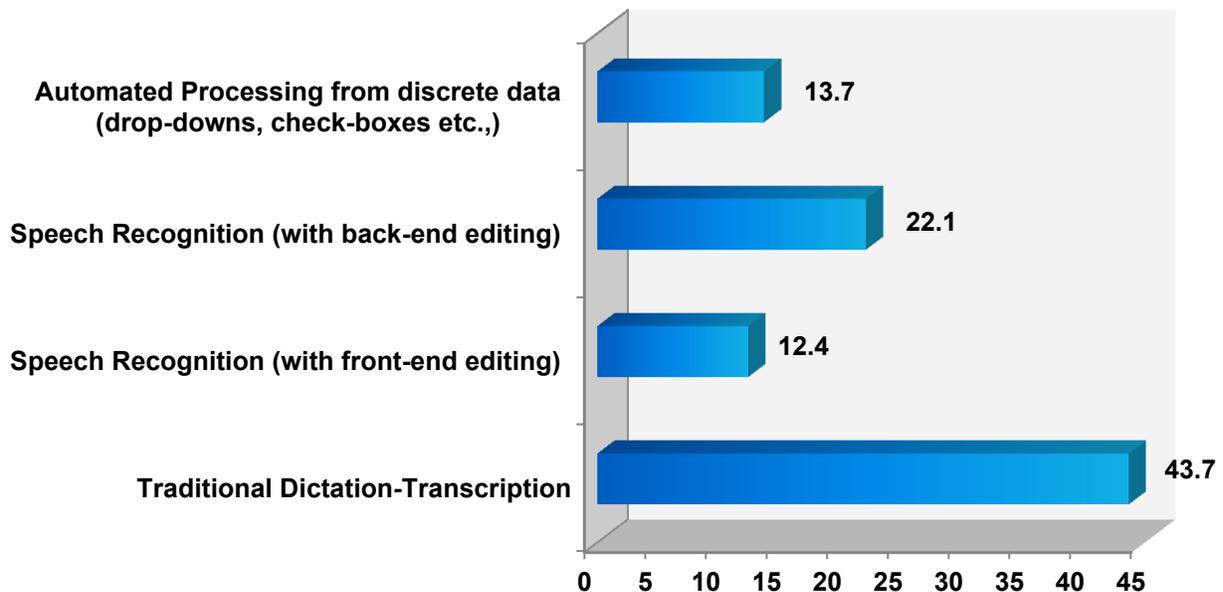
The dictation-transcription method continues to be a dominant EHR creation method

Although 13.7% of the respondents reported that at their locations electronic health records are created using computer tools where discrete health information is entered directly using templates, check-boxes, and drop-down menus, 78.2% identified dictation-transcription mode for creating electronic medical records at their organizations.

43.7% of 162 respondents reported that the traditional dictation-transcription

approach is used for creating health records at their locations. 24.5% use an enhanced dictation-transcription approach where speech recognition technologies are used. 12.4% use speech recognition for front-end editing dictations and 22.1% use speech recognition for back-end editing. In summary, the dictation-transcription method continues to be the dominant EHR creation method.

How is the narrative record created? In the space provided, please specify the percentage of total documentation created.



Physicians enter the most amount of patient's health information into EHRs

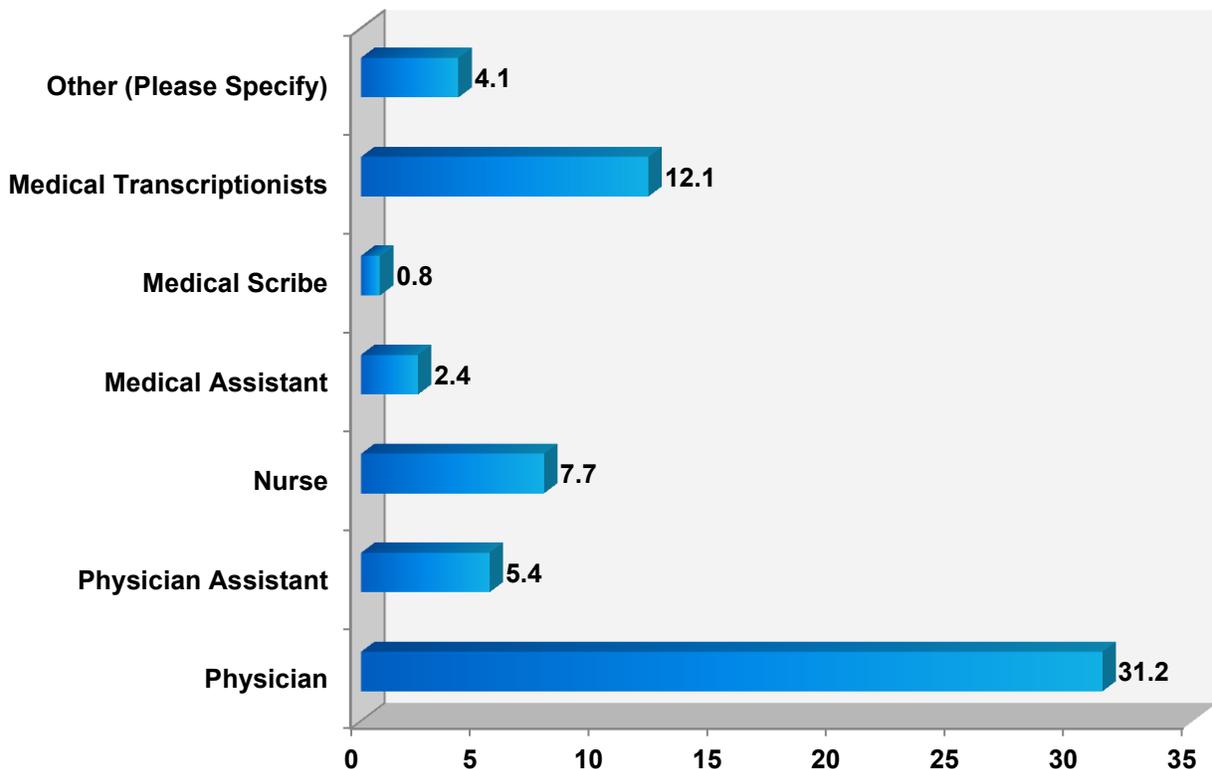
Among the creators of electronic health records at an organization, on the average physicians entered the most data. Specifically, 31.2% of the total EHRs quantity was created by physicians.

Other professionals who enter data as part of electronic health records creation are physician assistants, nurses, medical assistants, medical scribes, and medical transcriptionists.

7.7% of EHR content was created by nurses, 5.4% by physician assistants, 2.4% by medical assistants, and 0.8% by medical scribes.

12.1% of the EHRs content was created by medical transcriptionists. Medical transcriptionists are second only to physicians in the amount of content inputted directly into the EHR.

Who is entering the discrete data into EHRs? In the space provided, please specify the percentage of total documentation created.



HIM directors and IT personnel are responsible for developing and implementing EHR policies and procedures that meet regulatory requirements

73.5% of the respondents reported that HIM directors have the responsibility to develop and implement EHR policies and procedures to meet regulatory requirements.

37.7% of the respondents identified IT personnel to be responsible for

implementing EHR policies and procedures. Besides HIM directors and IT personnel, 14.2% of the respondents reported that medical transcriptionists are responsible for designing, testing and implementing best practices in EHR systems.

At your facility, who performs and/or is involved in the task of developing and implementing EHR policies and procedures to meet regulatory requirements?

RESPONSIBILITY	NUMBER	PERCENTAGE
Physicians	36	22.2%
Nurses	24	14.8%
Physician Assistants	4	2.5%
IT Personnel	61	37.7%
HIM Director/Manager/Supervisor	119	73.5%
HIM Clerical Staff	3	1.9%
HIM Coders	4	2.5%
HIM Chart Analysts	4	2.5%
HIM Medical Transcriptionists	4	2.5%
Other	36	22.2%

Those responsible for designing, testing, and implementing best practices in EHR use include IT personnel and HIM directors (60%-80%), physicians (35%-45%), and nurses (20%-35%)

59.9% of the respondents identified IT personnel and 56.2% identified HIM directors to be responsible for planning the design, test and implementation of best practices in EHR systems.

Besides IT and HIM directors, 36.4 % of the respondents identified physicians

and 25.3% identified nurses to be key participants in planning best practices in EHR systems.

14.2% of the respondents reported that medical transcriptionists participate in designing, testing, and implementing best practices in EHR systems.

At your facility, who performs and/or is involved in designing, testing, and implementing best practices in EHR use?

RESPONSIBILITY	NUMBER	PERCENTAGE
Physicians	59	36.4%
Nurses	41	25.3%
Physician Assistants	10	6.2%
IT Personnel	97	59.9%
HIM Director/Manager/Supervisor	91	56.2%
HIM Clerical Staff	11	6.8%
HIM Coders	10	6.2%
HIM Chart Analysts	6	3.7%
HIM Medical Transcriptionists	23	14.2%
Other	24	14.8%

IT personnel (60%-80%), HIM directors (35%-45%) and physicians (20%-35%) are responsible for creating EHR templates

56.8% of the respondents reported that IT personnel have the responsibility for instructing and training new EHR users.

39.5% of the respondents identified HIM directors to be responsible for training new users of EHR systems at their facilities.

Sometimes EHR template creation responsibility can be assigned to other roles.

For example, 11.7% of the respondents stated nurses, 12.3% identified HIM medical transcriptionists heads, and 9.9% entered HIM clerical staff to be responsible for training new users.

At your facility, who performs and/or is involved in creating EHR templates?		
RESPONSIBILITY	NUMBER	PERCENTAGE
Physicians	9	5.6%
Nurses	19	11.7%
Physician Assistants	1	0.6%
IT Personnel	92	56.8%
HIM Director/Manager/Supervisor	64	39.5%
HIM Clerical Staff	16	9.9%
HIM Coders	3	1.9%
HIM Chart Analysts	7	4.3%
HIM Medical Transcriptionists	20	12.3%
Other	34	21.0%

IT Personnel (60%-80%) and HIM directors (35%-45%) are responsible for instructing and training new EHR users.

56.8% of the respondents reported that IT personnel have the responsibility for instructing and training new EHR users.

Sometimes the responsibility for instructing and training EHR users can be assigned to other roles.

39.5% of the respondents identified HIM directors to be responsible for training new users of EHR systems at their facilities.

The survey found this responsibility was assigned 12.3% to HIM medical transcriptionists and 11.7% to nurses.

At your facility, who performs and/or is involved in instructing and training new EHR users?		
RESPONSIBILITY	NUMBER	PERCENTAGE
Physicians	9	5.6%
Nurses	19	11.7%
Physician Assistants	1	0.6%
IT Personnel	92	56.8%
HIM Director/Manager/Supervisor	64	39.5%
HIM Clerical Staff	16	9.9%
HIM Coders	3	1.9%
HIM Chart Analysts	7	4.3%
HIM Medical Transcriptionists	20	12.3%
Other	34	21.0%

IT personnel (60%-80%) and HIM directors (35-45%) are responsible for providing ongoing EHR user support.

59.9% of respondents reported that IT personnel are responsible for providing ongoing EHR user support and training.

41.4% said that HIM directors are responsible at their facility.

9.9% of the respondents reported that HIM medical transcription office is

responsible ongoing EHR user support and training.

Other roles identified in the survey as having support responsibility include HIM clerical staff, HIM chart analysts, and nurses.

At your facility, who performs and/or is involved in providing ongoing EHR user support and training?		
RESPONSIBILITY	NUMBER	PERCENTAGE
IT Personnel	97	59.9%
HIM Director/Manager/Supervisor	67	41.4%
HIM Clerical Staff	16	9.9%
HIM Medical Transcriptionist	16	9.9%
Nurse	13	8.0%
HIM Chart Analyst	10	6.2%
Physician	6	3.7%
HIM Coder .	6	3.7%
Physician Assistant	1	0.6%
Other	34	21.0%

Physicians, nurses, and physician assistants (60%-80%) are all responsible for entering information regarding a given critical encounter into an EHR system. HIM medical transcriptionists (35%-45%) are responsible for entering critical encounter information into an EHR system.

60.5% of respondents reported that physicians are responsible for entering information regarding a given clinical encounter into the EHR system. 58.6% said that nurses are responsible and 49.4% told that physician assistants are responsible.

38.3% of the respondents reported that at their facility the MIS medical transcription office is responsible for

entering clinical information in EHR systems. Other units identified in the survey as having responsibility to enter clinical data into EHR systems include HIM directors, HIM clerical staff, HIM coders and HIM chart analysts. 10.5% of the respondents identified HIM directors to be responsible for entering clinical data in EHRs, 14.2% noted HIM clerical staff and 11.1% identified HIM coders.

At your facility, who performs and/or involved in entering information regarding a given clinical encounter into the EHR		
RESPONSIBILITY	NUMBER	PERCENTAGE
Physicians	98	60.5%
Nurses	95	58.6%
Physician Assistants	80	49.4%
IT Personnel	7	4.3%
HIM Director/Manager/Supervisor	17	10.5%
HIM Clerical Staff	23	14.2%
HIM Coders	18	11.1%
HIM Chart Analysts	11	6.8%
HIM Medical Transcriptionists	62	38.3%
Other	21	13.0%

HIM directors and HIM chart analysts (35%-45%) are responsible for monitoring of EHR documentation to ensure accuracy and completeness. HIM medical transcriptionists, HIM clerical staff, and HIM coders perform the task of monitoring EHR documentation to ensure accuracy and completeness less frequently (20%-35%).

42.0% of respondents reported that HIM director is responsible for monitoring EHR documentation for a given patient to ensure accuracy and completeness. 40.7% said that HIM chart analysts are responsible.

32.1% of the respondents reported that at their facility the HIM medical transcription office is responsible for monitoring EHR documentation for a

given patient to ensure accuracy and completeness.

Other roles identified in the survey as having responsibility to monitor EHR documentation include HIM clerical staff, HIM coders, nurses and physicians. 31.5% of the respondents identified HIM clerical staff, 26.5% identified HIM coders, 17.9% nurses and 14.8% physicians.

At your facility, who performs and/or involved in monitoring of EHR documentation for a given patient to ensure accuracy and completeness?

RESPONSIBILITY	NUMBER	PERCENTAGE
HIM Director/Manager/Supervisor	68	42.0%
HIM Chart Analyst	66	40.7%
HIM Medical Transcriptionist	52	32.1%
HIM Clerical Staff	51	31.5%
HIM Coder	43	26.5%
Nurse	29	17.9%
Physician	24	14.8%
Physician Assistant	11	6.8%
IT Personnel	9	5.6%
Other	37	22.8%

HIM directors (35%-45%) are responsible for quality assessment reviews of EHR documents. In addition HIM chart analysts, HIM medical transcriptionists, and HIM coders can perform quality assessment reviews (20%-35%).

42.6% of respondents reported that HIM director is responsible for quality assessment reviews of EHR documents. 33.3% said that HIM chart analysts are responsible.

25.9% of the respondents identified that the HIM medical transcriptionists are responsible for quality assessment reviews.

Other roles identified in the survey as having responsibility for quality reviews include HIM clerical staff, HIM coders, nurses and even physicians. 23.5% of the respondents identified HIM coders, 19.8% identified HIM clerical staff, 13.6% nurses and 9.3% physicians.

At your facility, who performs and/or is involved in quality assessment reviews of EHR documents, generally, for accuracy and completeness?

RESPONSIBILITY	NUMBER	PERCENTAGE
HIM Director/Manager/Supervisor	69	42.6%
HIM Chart Analyst	54	33.3%
HIM Medical Transcriptionist	42	25.9%
HIM Coder	38	23.5%
HIM Clerical Staff	32	19.8%
Nurse	22	13.6%
Physician	15	9.3%
IT Personnel	7	4.3%
Physician Assistant	6	3.7%
Other	46	28.4%

HIM coders (60%-80%) are responsible for reviewing diagnosis and procedure codes in EHR documents for billing purposes.

70.4% of respondents reported that HIM coder is responsible for reviewing diagnosis and procedure codes in EHR documents for billing purposes. 19.8% said that HIM directors are responsible and 17.9% told that HIM chart analyst perform this responsibility.

diagnosis and procedure codes in EHR documents for billing purposes include HIM clerical staff and HIM medical transcriptionists. 8.0% of the respondents identified HIM clerical staff and 5.0% identified HIM medical transcriptionists.

Other roles identified in the survey as having responsibility for reviewing

At your facility, who performs and/or involved in reviews of EHR documents by diagnosis and procedure codes for billing purposes?		
RESPONSIBILITY	NUMBER	PERCENTAGE
HIM Coder	114	70.4%
HIM Director/Manager/Supervisor	32	19.8%
HIM Chart Analyst	29	17.9%
HIM Clerical Staff	13	8.0%
HIM Medical Transcriptionist	9	5.6%
Physician Assistant	5	3.1%
Nurse	5	3.1%
IT Personnel	5	3.1%
Physician	3	1.9%
Other	28	17.3%

HIM directors and HIM chart analysts (35%-45%) are responsible for utilization of EHR in assembling and analyzing medical documentation to improve patient care, compliance, and safety.

42.0% of respondents reported that HIM director is responsible for utilization of EHR documents in order to improve patient care, compliance and safety processes.

9.3% of the respondents identified HIM medical transcriptionists to be

responsible for process improvements using EHR documents.

Other roles identified in the survey as having this responsibility include HIM chart analyst, HIM clerical staff, HIM coders, nurses, physicians, and IT personnel.

At your facility, who performs and/or is involved in utilization of EHR in assembling and analyzing medical documentation to improve patient care, compliance, and safety?		
RESPONSIBILITY	NUMBER	PERCENTAGE
HIM Director/Manager/Supervisor	68	42.0%
HIM Chart Analyst	62	38.3%
HIM Coders	27	16.7%
HIM Clerical Staff	26	16.0%
Nurse	24	14.8%
Physician	18	11.1%
IT Personnel	16	9.9%
HIM Medical Transcriptionist	15	9.3%
Physician Assistant	7	4.3%
Other	50	30.9%

HIM directors (45%-60%) are responsible for monitoring and reporting results of compliance assessment performed on EHR documentation.

56.2% of respondents reported that HIM director is responsible for monitoring and reporting results of compliance assessments performed on EHR documentations.

5.6% of the respondents identified HIM medical transcriptionists to be

responsible for compliance assessments on EHR documentations.

Other roles identified in the survey as having this responsibility include HIM chart analyst, IT personnel, HIM coder, HIM clerical staff, nurse, physician, and physician assistant.

At your facility, who performs and/or is involved in monitoring and reporting results of compliance assessments (e.g., as per HIPAA and HITECH) performed on EHR documentations?		
RESPONSIBILITY	NUMBER	PERCENTAGE
HIM Director/Manager/Supervisor	91	56.2%
HIM Chart Analyst	32	19.8%
IT Personnel	23	14.2%
HIM Coder	21	13.0%
HIM Clerical Staff	17	10.5%
Nurse	13	8.0%
HIM Medical Transcriptionist	9	5.6%
Physician	7	4.3%
Physician Assistant	5	3.1%
Other	53	32.7%

HIM directors (60%-80%) are responsible for ongoing communication with medical staff regarding EHR documentation issues.

69.1% of respondents reported that HIM director is responsible for ongoing communication with medical staff regarding EHR documentation issues.

15.4% of the respondents identified HIM medical transcriptionists to be responsible for communication with

medical staff regarding EHR documentations.

Other roles identified in the survey as having this responsibility include IT personnel, HIM coder, HIM chart analyst, physician, HIM clerical staff, nurse and physician assistant.

At your facility, who performs and/or is involved in ongoing communication with medical staff regarding EHR documentation issues?		
RESPONSIBILITY	NUMBER	PERCENTAGE
HIM Director/Manager/Supervisor	112	69.1%
IT Personnel	38	23.5%
HIM Coder	31	19.1%
HIM Chart Analyst	28	17.3%
HIM Medical Transcriptionist	25	15.4%
Physicians	24	14.8%
HIM Clerical Staff	23	14.2%
Nurse	20	12.3%
Physician Assistant	6	3.7%
Other	43	26.5%

Appendix A

EHR Life Cycle Phases

- Policy Planning: The activities associated with planning EHR policies and procedures to meet regulatory compliance and adhere to legislative, corporate and strategic requirements.
- Practices Implementation: The activities associated with designing, testing, and implementing best practices in EHR use.
- Template Design: The activities associated with the design of EHR templates that are both fit-for-purpose and fit-for-use.
- User Training: The activities associated with the delivery of EHR user training.
- Ongoing Support: The activities associated with the delivery of EHR on-going support to handle unexpected events, recurring problems, and ad hoc service requests.
- Creation: The activities associated with entering information regarding clinical encounters in EHR systems.
- Quality Review: The activities associated with ensuring information accuracy, completeness, and quality assessment of EHRs.
- Coding for Billing: The activities associated with entering and reviewing diagnosis and procedure codes in EHR documents for billing purposes.
- Compliance Review: The activities associated with analyzing EHRs to improve patient care and compliance assessment as per HIPAA and HITECH standards.
- Policy Communications: The activities associated with ongoing communications regarding the creation of EHR documentation.