CLINICAL DOCUMENTATION TRENDS IN THE UNITED STATES, 2013-2016

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Executive Summary

Background

Health Business Group has completed an in-depth assessment of the clinical documentation market in the United States. The research includes survey responses from more than 800 hospitals, integrated delivery networks and physician practices, plus insights from interviews with 20 thought leaders. The study was commissioned by Nuance Communications, Inc. and conducted during the summer of 2013.

Clinical documentation today

Medical transcription is the most common form of documentation in the acute care market and is also utilized, though to a lesser extent, in the ambulatory space.

- About half of medical transcription is performed by provider organizations using their own staff; half is outsourced to Medical Transcription Service Organizations (MTSOs).
- Acute care providers frequently use both in-house and outsourced resources; ambulatory practices tend to use one or the other but not both.
- Most provider organizations type their transcription directly from audio files.

A substantial portion of documentation is done using the electronic health record (EHR), especially in the ambulatory market.

Despite increasing EHR penetration, health care providers express some uncertainty about the ability of EHRs to meet clinical documentation needs and to tell the complete patient story.

A significant share of clinical documentation is still handwritten.

Clinical documentation in 2016

The clinical documentation market will undergo substantial change between 2013 and 2016.

Documentation volume will continue to grow at approximately 2 to 3 percent per year.

The use of EHRs for documentation will increase, especially in ambulatory settings.

The use of front-end speech recognition to enter data into EHRs will grow faster than the use of keyboard and mouse.

Integrated delivery networks (IDNs) will increasingly determine the method of clinical documentation for affiliated practices.

Documentation on paper will vanish almost completely.

Transcription will remain an important documentation method, but more of the market will be outsourced.

There will be increasing use of back-end technology among those who continue to perform transcription in-house.

New technologies such as Clinical Language Understanding (CLU) will enter the mainstream.

The introduction of ICD-10 may increase the need for high-quality clinical documentation and Computer-Assisted Coding.

Recommendations for provider organizations

1. Plan for a clinical documentation environment that has a mix of EHR-based, dictated and transcribed documents.

2. Consider the strategic use of outsourcing to manage changes in the volume of transcription.

3. Anticipate hiccups in documentation and clinician satisfaction when an EHR is implemented.

4. Prepare for more thorough documentation to support the rollout of ICD-10.

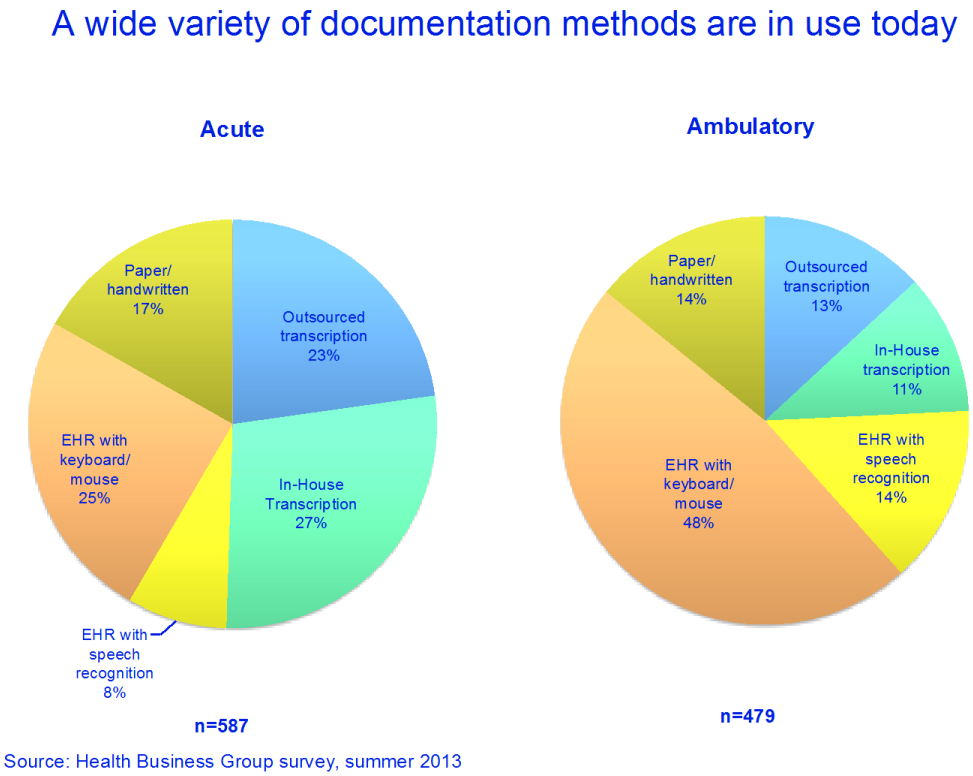
5. Use technology to enhance productivity.

6. Incorporate the benefits of standard clinical documentation across the care continuum.

Clinical Documentation Today

Hospital (acute) and office-based (ambulatory) health care providers use a variety of methods for clinical documentation including transcription, electronic health record (EHR) systems with and without speech recognition, and paper.

FIGURE 1: METHODS OF DOCUMENTATION IN 2013



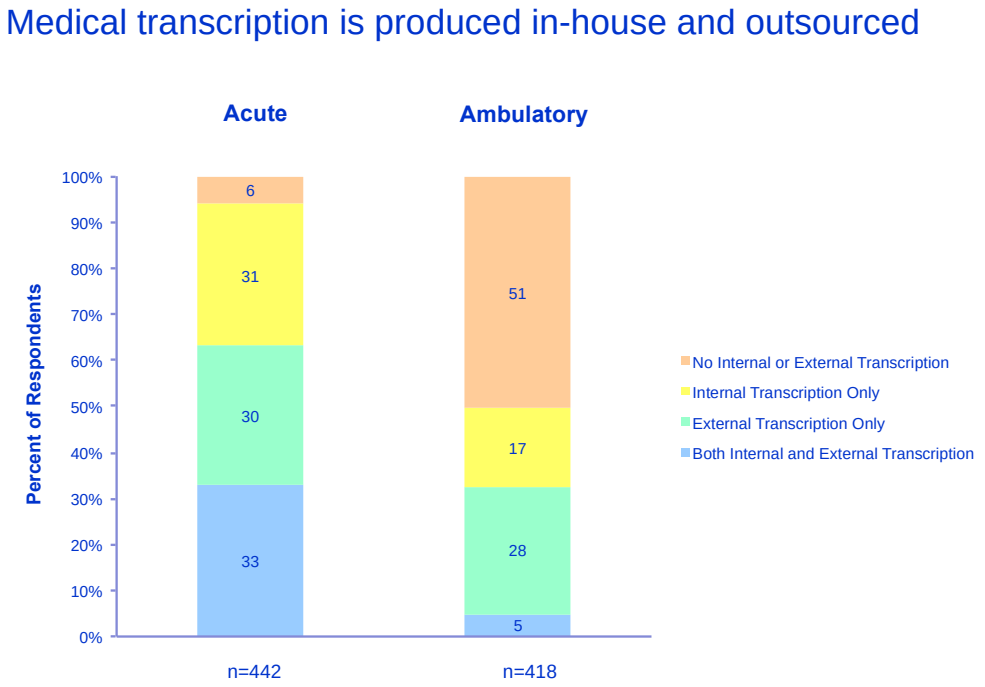
Medical transcription is the most common form of documentation in the acute care market and is also utilized, though to a lesser extent, in the ambulatory space. One-half (50 percent) of all clinical documentation in the acute care setting is transcribed, making it the largest single method of documentation. In the ambulatory market, 24 percent is transcribed.

- **About half of medical transcription is performed by provider organizations using their own staff**. The other half is outsourced to Medical Transcription Service Organizations (MTSOs). In the acute market, there is slightly more insourcing than outsourcing, while ambulatory providers outsource slightly more than they insource. Providers cite

flexibility, performance and cost effectiveness as key reasons to outsource. Insourcing is favored by those who value greater control and direct supervision of the process, and who transcribe sufficient volume to justify dedicated staffing.

- **Acute care providers frequently use some in-house and some outsourced resources,** while ambulatory practices typically use either one method or the other but not both. In general, acute care providers have greater scale, a wider diversity of operations and a greater ability to plan and manage transcription capacity, all of which make a hybrid model more attractive. Some ambulatory providers that insource transcription manage capacity by cross-training transcriptionists for other duties such as coding.

FIGURE 2: MEDICAL TRANSCRIPTION INSOURCING AND OUTSOURCING



Source: Health Business Group survey, summer 2013

- **Most provider organizations type their transcription directly from audio files**, but some use back-end software technology to generate a speech-recognized draft of the dictation, which is then edited by a medical transcriptionist. Such back-end systems can more than double productivity, which can justify their upfront cost. IDN-affiliated ambulatory clinics and hospitals are the biggest users of back-end systems. Independent clinics and

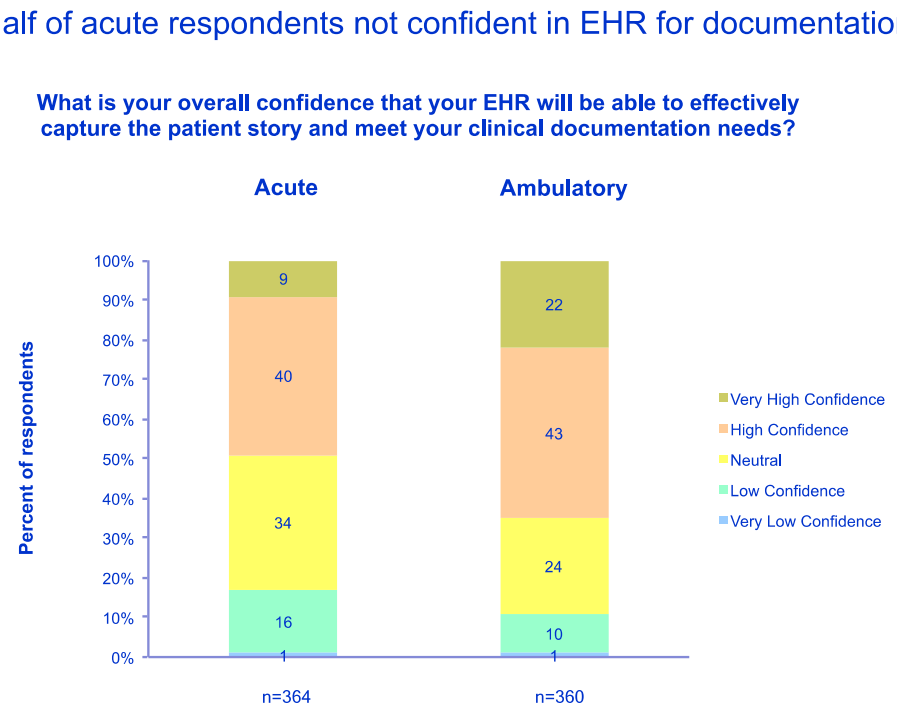
standalone hospitals are more likely to rely on the older method of typing directly from audio files.

A substantial portion of documentation is done using the electronic health record (EHR). In the ambulatory market, the adoption of EHRs has been striking. The recent uptake has largely been fueled by the advent of federal incentives for Meaningful Use. As of 2012, more than 70 percent of physicians had taken at least the first steps toward EHRs, according to the Centers for Disease Control. In the ambulatory market, 48 percent of clinical documentation is produced using a keyboard and mouse to input information into an EHR, and another 14 percent is recorded in the EHR by clinicians using front-end speech recognition tools. The uptake of EHRs for clinical documentation is aided in the ambulatory setting by standard workflows and prevalence of computers in exam rooms. These factors enable faster adoption of structured data input, templates, and speech recognition compared to the acute setting.

In the acute market, about 25 percent of clinical documentation is produced using an EHR with keyboard or mouse input and an additional 8 percent is recorded through the use of speech recognition in conjunction with an EHR. Like ambulatory practices, hospitals have been implementing EHRs, but at a slower pace of adoption and optimization. Only about 10 percent of hospitals have reached the advanced stages of adoption —generally defined as Stage 6 or 7 of the HIMSS Analytics EMR Adoption Model— in which "full physician documentation [is used] with structured templates and discrete data is implemented for at least one inpatient care service area for progress notes, consult notes, discharge summaries or problem list & diagnosis list maintenance." Reasons for the slower adoption include the higher complexity of the hospital environment and the multi-million dollar financial commitments required.

Despite increasing EHR penetration, health care providers express some uncertainty about the ability of EHRs to meet clinical documentation needs and to tell the complete patient story. The decision to install an electronic health record is largely based on government mandates and return on investment (ROI) calculations, but the decision also has significant implications for the accuracy, completeness and accessibility of clinical documentation. Although many providers express confidence in the ability of their EHRs to effectively capture the patient story and meet clinical documentation needs, 51 percent of acute care providers and 35 percent of ambulatory providers rate their level of confidence as very low, low or neutral. Many providers are taking a wait-and-see attitude toward EHR implementation before making dramatic shifts to their documentation strategies.

FIGURE 3: CONFIDENCE IN EHR FOR CLINICAL DOCUMENTATION



Source: Health Business Group survey, summer 2013

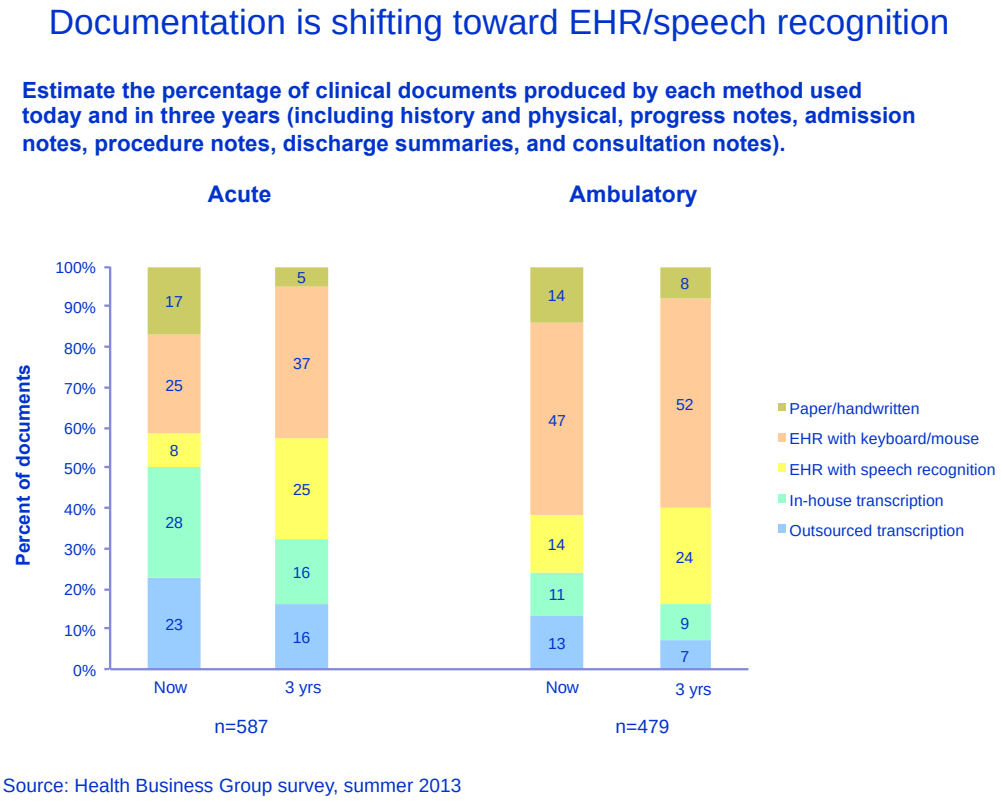
A significant share of clinical documentation is still handwritten. Acute care and ambulatory providers have shifted away from paper over time, yet paper-based handwritten notes are still in use. To put paper in perspective, handwritten notes are still more common than the use of front-end speech recognition in conjunction with an EHR. The share of handwritten documentation today is 17 percent in the acute care setting and 14 percent in the ambulatory environment.

Clinical Documentation in 2016

The clinical documentation market will undergo substantial change between 2013 and 2016. Broader changes in health care and technology will reverberate across the clinical documentation arena, leading to increased centralization of decision making in IDNs, greater use of EHRs, and deployment of new clinical documentation technologies.

Documentation volume will continue to grow. The total volume of clinical documentation is expected to increase approximately 7 or 8 percent from 2013 to 2016, or about 2 to 3 percent per year. The growth rate is in line with the anticipated growth in patient volumes that will accompany population increases and implementation of the Patient Protection and Affordable Care Act.

FIGURE 4: SHIFT IN DOCUMENTATION METHODS, 2013-2016



Source: Health Business Group survey, summer 2013

The use of EHRs for documentation will increase, especially in ambulatory settings. EHRs have reached a tipping point in physician offices, and are expected to be used for 76 percent of all clinical documentation in three years compared with 61 percent today. The trend is somewhat less pronounced in the acute care market,

which is trailing ambulatory adoption by about three years. In acute care settings, EHR use for documentation is expected to increase from 33 percent today to 62 percent in 2016. Providers are expected to respond to shortcomings in their EHRs by optimizing existing systems or replacing old systems with new ones, a process that is likely to be disruptive for providers and clinical documentation overall.

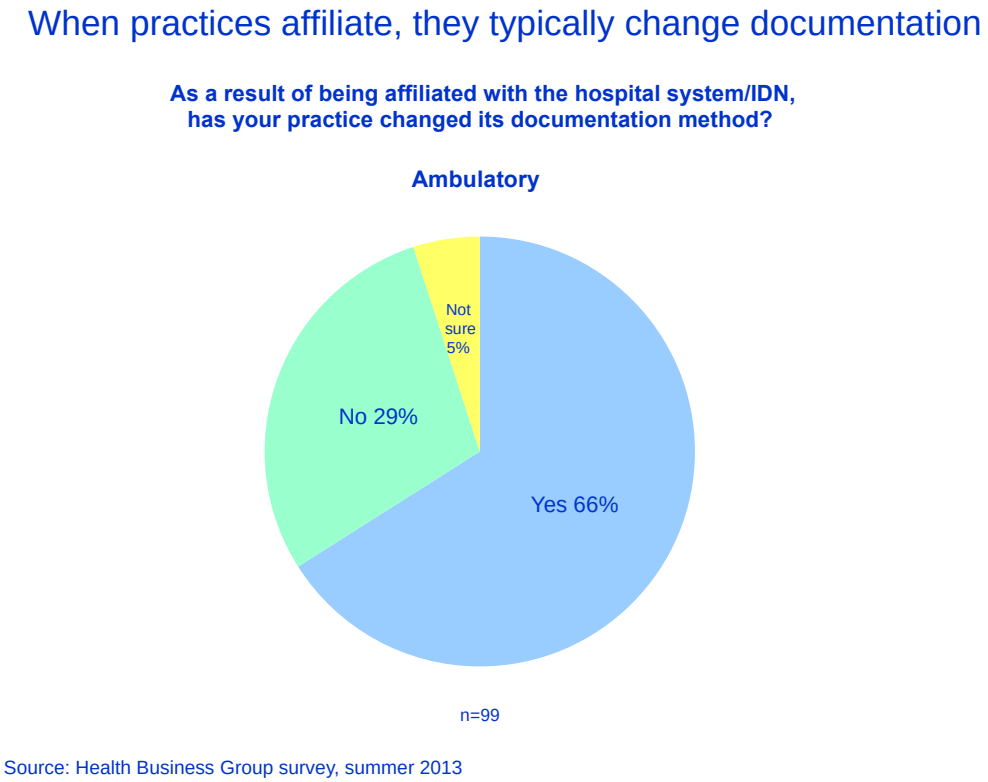
The use of front-end speech recognition to enter data into EHRs will grow faster than the use of keyboard and mouse. Front-end speech recognition software that allows providers to dictate directly into EHRs has gained a foothold, especially in ambulatory practices where it already accounts for 14 percent of documentation.

- Provider use of front-end speech recognition is likely to increase to about 25 percent in both acute and ambulatory settings.
- The drivers for this phenomenon include improvements in the accuracy and usability of the technology and continued EHR adoption.
- Clinicians are increasingly being exposed to speech recognition technology in other contexts, including on their smartphones and in interactive voice response systems for consumer services. These experiences are making clinicians increasingly open to using speech recognition at work. Many will want to follow the same mixed usage pattern on the job as they do in their personal lives: switching back and forth between speech recognition and other inputs methods, such as keyboard and mouse, depending on task and setting.

Integrated delivery networks (IDNs) will be increasingly influential in clinical documentation.

- Survey data indicate that 66 percent of physician practices that affiliate with IDNs change their method of clinical documentation as a result, and 53 percent change their EHR vendor.
- Provisions of the Affordable Care Act, such as Accountable Care Organizations, call for providers to manage the full continuum of care and to control costs and improve outcomes for populations of patients. This represents a substantial shift from the traditional fee-for-service model where revenue is maximized by increasing the volume and intensity of services.
- Providers are responding to the changing market by forming tighter integrated delivery networks through affiliation and acquisition. The trend toward clinical integration has major repercussions for clinical documentation.

FIGURE 5: IMPACT OF IDN AFFILIATION ON DOCUMENTATION



Documentation on paper will vanish almost completely. In the health care world of tomorrow there will be little room for handwritten records. Only 5 to 8 percent of documents (acute and ambulatory, respectively) are expected to be paper-based by 2016. Documents that are still produced on paper today will migrate over the next few years toward EHR and transcription.

Transcription will remain an important documentation methodology, but more of the market will be outsourced.

- The use of medical transcription is in gradual decline. By 2016, transcription will represent 32 percent of acute documentation and 16 percent of ambulatory documentation.
- Providers already outsource a significant portion of their transcription to Medical Transcription Service Organizations (MTSOs). The trend toward outsourcing is likely to accelerate as providers analyze the benefits of outsourcing and conclude that it is a cost-effective, non-disruptive way to manage shifts in transcription volume and ensure high performance. Provider organizations are seeking the most effective, least disruptive

approaches to manage the transition, while recognizing that transcription is likely to remain an important part of the documentation mix for many years.

Increasing use of back-end technology will improve productivity and reduce transcription costs for those who continue to insource. Health care reform will increase margin pressures on providers by constraining reimbursement levels. Hospital administrators and practice managers will seek to increase operational efficiencies and to do so in ways that do not detract from the patient experience. Providers that continue to perform their transcription work in-house will meet the demand for increased efficiency by deploying back-end technology to generate speech-recognized drafts, which are then edited by medical transcriptionists.

New technologies such as Clinical Language Understanding and Natural Language Processing will enter the mainstream. The digitization of health care information provides new opportunities to leverage clinical documentation to improve patient care, streamline workflows and optimize reimbursement. Leading providers will increasingly turn to Clinical Language Understanding (CLU) and Natural Language Processing (NLP) to gain insights from electronic health records and transcribed files that can be applied to individual patients and also used in combination with analytics and predictive modeling to improve population health.

The introduction of ICD-10 may increase the need for high-quality clinical documentation and Computer-Assisted Coding.

- The transition from ICD-9 to ICD-10 coding presents serious challenges. ICD-10 increases the number of codes by an order of magnitude while making fundamental changes to coding structures and organizing concepts.
- Most of the attention on ICD-10 has emphasized the challenges in provider readiness, but payers are also likely to encounter difficulties. As a result, payers may demand significantly more documentation to support specific ICD-10 codes, at least in the first few years. For example, extra documentation may be required regarding the impact of co-morbid conditions, laterality, severity of a patient's condition, and the reason for ordering specific diagnostic tests. Providers are justifiably concerned about the potential drop-off in revenue and increase in payment delays.
- Providers are expected to address the challenges through more thorough documentation and the use of high-quality Computer-Assisted Coding (CAC) applications to increase coder productivity, optimize coding and reduce errors.

Recommendations for Provider Organizations

The world of clinical documentation is changing quickly. Overall demands are growing and the challenges in 2016 will be different from those of today. Providers can use clinical documentation to their advantage by doing the following:

1. **Plan for a clinical documentation environment that has a mix of EHR-based, dictated and transcribed documents.** In acute settings particularly, it is clear that no "one-size-fits-all" model for documentation will meet the needs across departments and specialties.

2. **Consider the strategic use of outsourcing to manage changes in the volume of transcription**. As transcription volumes shift, consider reducing internal resources by shifting the transcription function to an outsourced Medical Transcription Service Organization (MTSO). Larger MTSOs possess economies of scale and advanced technologies that enable providers to reduce costs while improving quality and decreasing turnaround times.

3. **Anticipate hiccups in documentation and clinician satisfaction when an EHR is implemented.** Major information technology and change management processes such as EHR implementation are disruptive to existing processes and can fall short of expectations. Provider organizations should adopt tools that enable physicians to thoroughly document the patient story within the new clinical workflow.

4. **Prepare for more thorough documentation to support the rollout of ICD-10.** The shift to ICD-10 coding is likely to cause delays in reimbursement and increase the number of rejected claims. Providers can play a role in averting or mitigating this downside by increasing the thoroughness of documentation and using tools such as Computer-Assisted Coding (CAC) technology and services to increase efficiency and ensure proper reimbursement.

5. **Use technology to enhance productivity.** Forward-thinking providers will use back-end speech recognition, Clinical Language Understanding (CLU) and Natural Language Processing (NLP) to increase productivity and generate insights from electronic records to improve population health and the health of individual patients. Tools such as computer-assisted physician documentation, which prompt for specific details about patient encounters, help ensure more accurate and complete documentation.

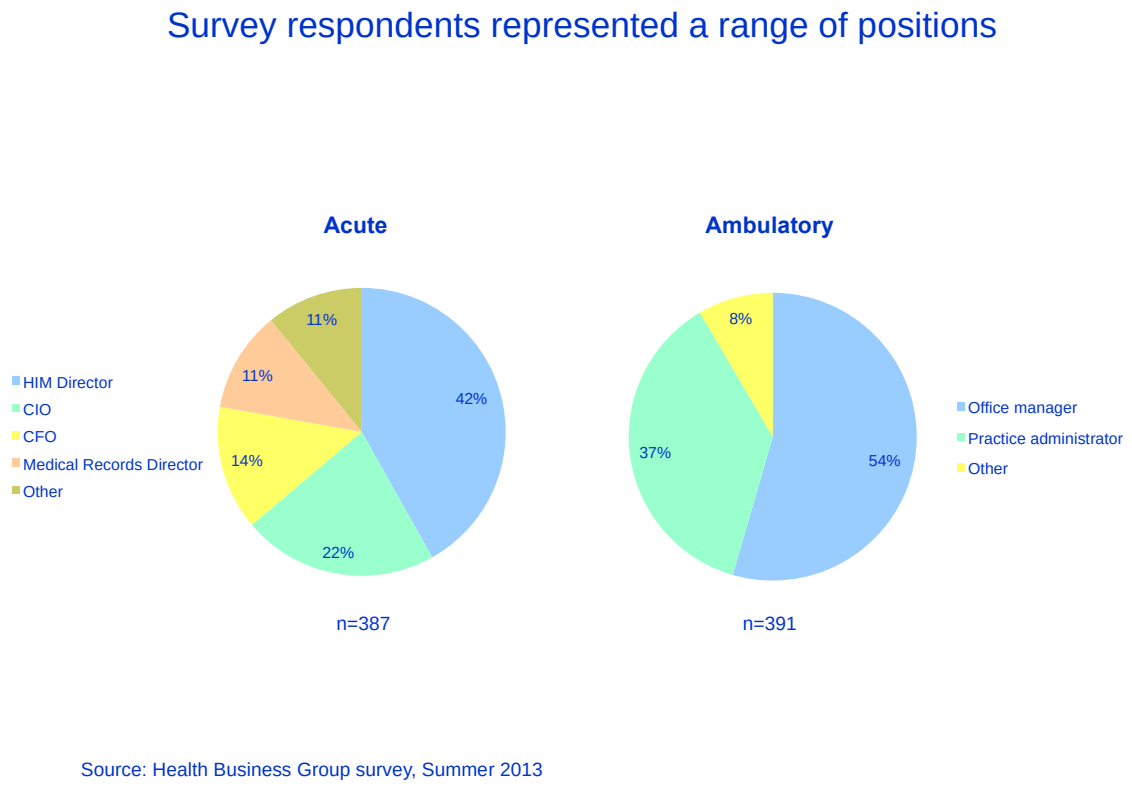
6. **Incorporate the benefits of standard clinical documentation across the care continuum.** Integrated delivery networks (IDNs) and Accountable Care Organizations (ACOs) can improve patient care and their own financial

performance when they successfully integrate operations across the continuum of care. Consistent, robust clinical documentation plays a critical role in this process, but progress can be hindered by disparate systems and lack of an overall documentation strategy. Providers can improve effectiveness by designing and implementing a comprehensive clinical documentation strategy that achieves consistency across the full care network.

Methodology

Health Business Group conducted an independent study of the US clinical documentation market in the summer of 2013 to gain insights into clinical documentation patterns today and to understand expectations for the next three years. The research included surveys, interviews, and secondary research. Survey invitations were emailed to integrated delivery networks (IDNs), standalone hospitals and outpatient physician practices. Almost 800 surveys were completed. The most common titles of survey respondents included HIM director, office manager, practice administrator, chief information officer, chief financial officer, and medical records director.

FIGURE 6: TITLES OF SURVEY RESPONDENTS



Source: Health Business Group survey, Summer 2013

Survey data were combined with interview results from 20 thought leaders, mostly chief medical informatics officers (CMIOs) from IDNs and hospitals. The purpose of these discussions was to garner additional perspectives on survey results and to develop a view of market evolution.

Individual survey and interview responses are held in strict confidence and analyzed only in combination with other responses.

Acknowledgments

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About Health Business Group

Health Business Group is a leading strategy consulting boutique advising companies, non-profits and investors in health care services, health information technology, and pharmaceutical services. Our client service professionals average more than 15 years of health care consulting, industry and start-up experience. We are passionate about helping our clients succeed.

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