



MTS ON THE
RADAR

2007 SURVEY

This report is dedicated to all the medical transcriptionists and those in the industry who graciously have given their time to make this project possible.

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INTRODUCTION

Our lives largely begin and end in the confines of the healthcare system. It is therefore not surprising that society in general is preoccupied with health and wellness, and for good reason. The quality of our lives can in large part be linked to the status of our health. Health care is estimated to account for as much as 16% of the US GDP (in 2007). This does not include the amount of money spent on items outside of the healthcare system that are meant to improve how we feel and our longevity. Thus, it is not surprising that health care in general, and medicine in specific, is one of the most studied areas in all of academia. Countless volumes have been produced analyzing every part of the healthcare system. This includes more recent attention toward integrating the entire US system through a National Health Information Network (NHIN) as a way to reduce costs, reduce treatment errors, increase continuity of care, and hopefully save lives.

In the midst of all this attention has been the complete absence of medical transcription in the healthcare equation. Prior to this study, no academic publications on the work of medical transcriptionists exist. Even outside of academia, little information exists regarding the demographics of medical transcriptionists. Thus, this constitutes the first large-scale attempt to chronicle the contributions and characteristics of MTs. The project is composed of various data collection strategies, including interviews with MTs (as well as medical transcription service organization management), focus groups, observations of MTs at work (nationally and internationally), serving on industry-related committees, and speaking at industry events. The basic goal was to understand who MTs are, what is it that they do, and how do they do it. In other words, put MTs on the radar in health care.

Given the lack of prior information about the profession, it can be difficult to determine how representative the results in this survey are. However, people involved in the profession have a general understanding of its characteristics. The survey results generally conform to what is thought to be true of the profession, provide a sense of the survey's representation of MTs, and thus, the generalizability of the findings. Of course, as the industry continues to undergo substantial changes, it is important to continue to examine the impact of these changes on the profession. The results contained here represent a first attempt to track the changes that are occurring within the industry.

SURVEY METHODOLOGY

The goal of this survey was to capture the characteristics and experiences of medical transcriptionists (MTs). The survey was created in conjunction with various medical transcription profession leaders as well as the Association for Healthcare Documentation Integrity (AHDI), the professional organization representing the clinical documentation sector. The survey was crafted in the hope of capturing details of the profession and MTs' work experiences. Numerous iterations of the draft survey were created and reviewed by MT educators, leaders, and workers. The survey itself, however, was not commissioned by AHDI or any other organization. Thus, it remains academic in its origin and intent (despite its obvious potential uses to a wider audience).

The survey was unveiled at the 2007 AHDI Annual Convention and Exposition (ACE) in Reno, Nevada. It was introduced to the AHDI House of Delegates (HOD) and paper copies were made available to those in attendance. The primary data collection method, however, was online. The survey went "live" at ACE on August 15 and remained open through December 31, 2007. The online survey was hosted by Bentley University. The survey was advertised through AHDI's weekly e-newsletter *Vitals* and contained a direct link to the survey site. It was also publicized via MT discussion boards in order to capture information from non-AHDI members. Numerous Medical Transcription Service Organizations (MTSOs) were also asked to advertise the survey to their employees and contractors.

A total of 3,809 people responded to the survey. The actual number of recorded responses was greater, but a number of responses were deemed to be duplicates after the entire data set was examined. It is difficult to know how many MTs are represented since it is not known how many MTs there are globally. The U.S. Department of Labor's national estimate was noted to be 86,990 medical transcriptionists in 2007. While this number has been viewed by those in the industry to be underestimated, it does provide a lower-bound figure of U.S.-based transcription. This does not account for the number of MTs near-shore or offshore. Finally, given that this was the first survey of its kind, it was not possible to compare these results to any previous data. Preliminary results were shared with industry and professional leaders as well as MTs in order to determine if certain aspects of the results matched what was generally thought to be known about the professional. The reaction from those polled indicated that the sample seemed to be representative of MTs.

DEMOGRAPHICS

Question 1: Please indicate your age range.

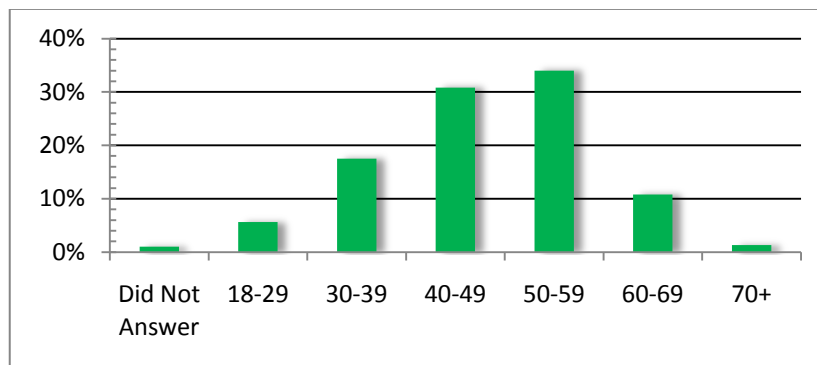


Figure 1

Medical transcriptionists are an aging population. Part of this is due to the overall aging of the U.S. workforce. However, when compared to estimates of the 2006 age distribution of the U.S., the age of MT professionals reflected in this survey trends older. This creates an immediate concern regarding a workforce that can match the demands of the healthcare industry. Also of concern is the apparent drop-off that occurs when MTs reach the ages of 60-69. Medical transcription, while a sedentary profession, is nevertheless an inherently physical one. MTs are required to continuously read and transcribe in a repetitive fashion. Thus, MTs are vulnerable to suffering the impacts of repetitive stress syndrome, vision problems, and other maladies associated with prolonged sitting and transcribing. Given that many MTs are paid by production units (see page 15), anything that has a negative impact on their ability to perform their work in a timely manner will result in loss of wages. With the progressive trends of using speech recognition technology and electronic health record systems, there is potential to transition experienced transcriptionists into a work setting that would require more editing than transcribing, but two factors can be problematic in this effort. First, the base rate of pay is oftentimes less than with traditional transcription (under the belief that it takes less time and effort and, therefore, can be done more quickly). However, physical limitations (such as poor eyesight) can still negatively impact performance. Second, there can be hesitancy among older MTs to learn new technologies associated with editing. Another avenue for older MTs is to work as quality analysts (QA), yet it is not likely that the number of QA jobs available will meet the needs of the potential number of MTs leaving the transcription industry. The MT profession is faced by the two-pronged problem of an aging workforce without a younger generation to replace them.

Question 2: Which of the following represents the highest level of education you have completed?

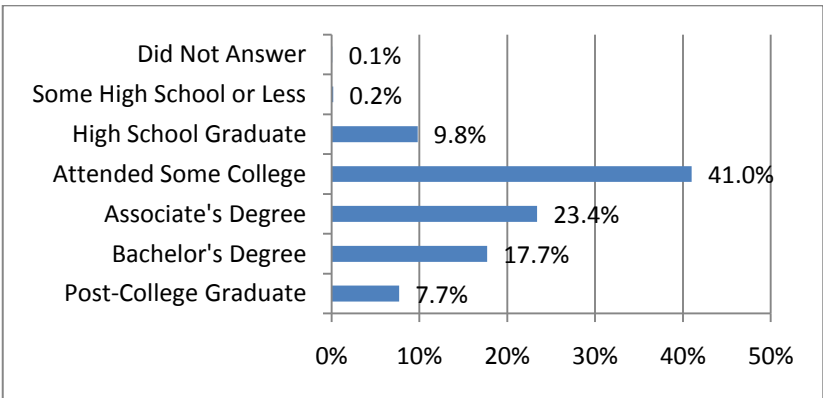


Figure 2

Those who responded to our survey generally demonstrate a propensity for education. The 2007 Current Population Survey (U.S.Census Bureau) indicates that 31.5% of the population has attained high school graduation as their highest level of education, followed by 19% having some college, 8.1% possessing an associates degree, 17.5% a bachelor’s degree, and 8.6% post-college graduate degree. However, if we focus solely on women over 18, MTs demonstrate higher educational attainment than the general female public. The CPS for women only shows the following levels of attainment: high school 31.3%, some college 19.6%, associate’s degree 9.1%, bachelor’s degree 17.8%, and post-college graduate degree 7.9%.

Thus, it would appear that MTs are at least, if not more, educated than the general population of the US. This was confirmed in interviews with MTs, who displayed varied backgrounds in their lives prior to transcription. The importance of knowledge and learning was also demonstrated in discussions of the work involved in transcription, which often entails researching new procedures to make sure they are correctly portrayed in the record, spelling of new instruments, and learning the specifics of medical specializations.

MTs retain a deeply held belief in the value of continuing education and on-the-job learning, providing an avenue for future training and job enhancement.

Question 3: With which of the following groups do you most identify?

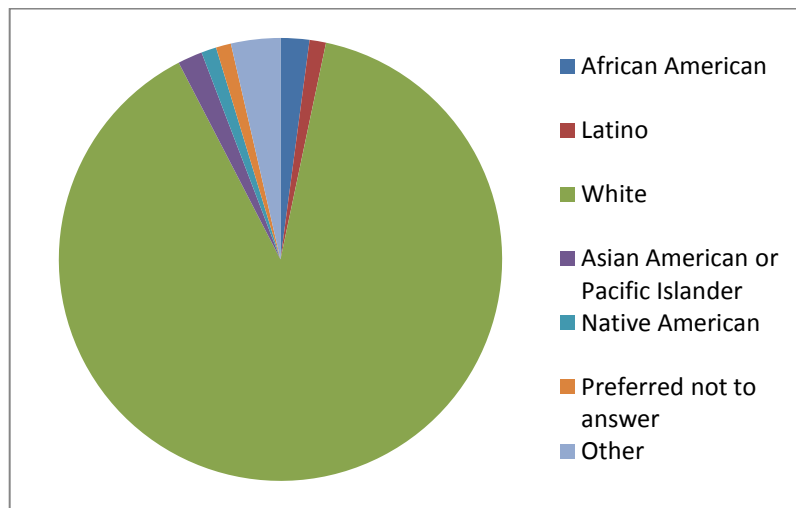


Figure 3

One of the most challenging demographic questions is concerned with ethnic/racial affiliation. People often identify with multiple groups. This speaks to the complexity of contemporary identities. Secondly, how one identifies oneself can diverge from how one is classified or ascribed. To address these challenges, the survey asked for respondents to provide the group with which the person most identified.

The responses indicated that the vast majority of the respondents (89.1%) identify with the category “white.” From this, it seems apparent that transcription today is an occupation primarily occupied by one ethnic/racial demographic group. The following shows the further breakdowns:

- African American 2.1%
- Asian American or Pacific Islander 1.8%
- Latino 1.2%
- Native American 1.1%
- Other 3.6%
- Preferred not to answer 1.1%

Of those who responded “Other,” 137 people provided their own category. These responses indicate the growing global nature of the MT community. Among those who responded using the “Other” category, 46 noted their ethnicity to be “Asian.” However, “Asian” was undefined. The traditional U.S. definition of Asian and Asian American involves East Asian countries (e.g., Japan, China, and Korea). At the same time, Asia is a large continent. Four respondents used a combination of “Asian Indian.” So it could be interpreted that “Asian” includes India (which is often classified as South Asia). At the same time, the Philippines are also in Asia, and 8 respondents provided “Filipino” as their “Other” classification, with two people providing a combination of “Asian Filipino.” The remaining open-ended responses involved a range of responses of various categories.

As MTs predominantly come from one ethnic/racial category, there may be an opportunity to expand the MT population through specifically and actively marketing the profession to a more broad population.

Question 4: What is your gender?

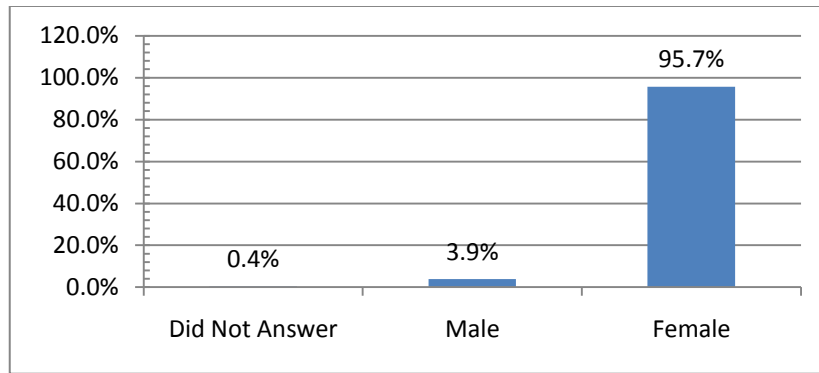


Figure 4

Not surprisingly, the vast majority of our respondents are female. Medical transcription has historically been a predominantly female-dominated profession. In years past, transcriptionists were often referred to as “medical secretaries,” whose transcription duties were part of their larger responsibilities in running the office of a physician practice. A predominance of women can be found throughout the healthcare documentation production chain, including quality assurance personnel and medical record coders.

However, this is not the case when looking at the globally-distributed MT workforce. There we find a higher representation of men working in the field, demonstrating that medical transcription is not solely “women’s” work. This demonstrates the potential for men to enter into the medical transcription workforce in larger numbers. Given the stated need for more MTs, the expansion of the labor force from being primarily female is an important potential strategy for the industry. To do so would require a change in the profession being thought of as “women’s” work to one that is open to any qualified knowledge worker in the healthcare industry. The association of the profession as being “clerical” or “secretarial” works against this.

While predominantly a female-dominated profession, there is opportunity to expand the pool of potential workers to include men, as has been done internationally.

COMPENSATION AND INCOME

Question 5: Which of the following best describes your personal income before taxes last year?

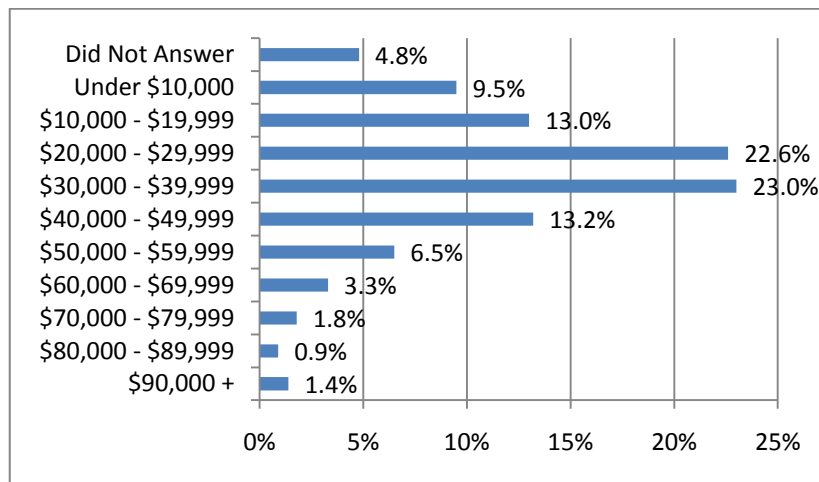


Figure 5

It is very difficult to gauge how much MTs make since the work can be varied, as can the compensation. The responses to the survey generally conform to the Department of Labor’s estimates, which provided \$32,120 as the mean annual wage in 2007. One factor potentially impacting the income distribution is the type of jobs being performed by respondents.

In 1999, the Hay Group provided a more detailed study of MT compensation. This study indicates that pay can vary based on whether one is employed as an independent contractor or employee, paid by production or hourly (or some combination), and the type of work performed, i.e., an MT, MT supervisor, quality assurance specialist. This creates a very complicated compensation picture that cannot be fully captured in this survey. However, the survey does provide a general understanding of the income distribution of respondents.

One of the major concerns among MTs is the extent to which their pay has been stagnating, increasing, or decreasing. These results do not provide a longitudinal understanding of transcription earnings. It is interesting to see that the income earnings are comparable to the general results of the Hay Report, published in 1999. Interviews and discussions with MTs indicate that wages have been stagnate or decreasing over the last decade. This would be in keeping with more general earnings trends in the U.S., which have seen worker purchasing power decrease as inflation has outpaced wage increases. The impact of this on MTs is compounded by downward price pressures brought on by the introduction of technology, the growing presence of an off-shore workforce that works for less pay, and declining profit margins in health care, which results in the desire for increased savings in areas such as transcription.

Limited earnings (real or perceived) continue to be a challenge for current MTs, and with the recruitment efforts of new MTs. This is compounded by the emergence of health information technologies (such as EHRs) and by the perception of customers that transcription work is more akin to manual labor than knowledge work.

Question 6: Which of the following best describes your total household income before taxes last year?

Along with Question 5, Question 6 provides another view into the economic conditions of MTs. It again is difficult to determine what these number mean. For instance, it is not known how many people are in the household, the geographic location of the household, household wealth (as opposed to income), etc. The responses to Question 7 do provide some important additional information regarding the number of wage earners in the house.

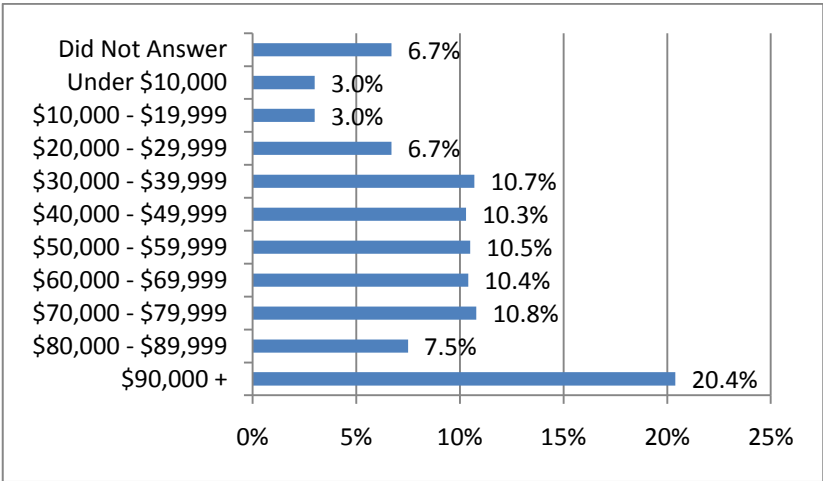


Figure 6

While these results do not indicate how much of the household earnings are comprised of from the MT’s income, it does show that the vast majority of MT households fall under the \$79,999 per-year range.

Question 7: Are there two or more wage earners in your household?

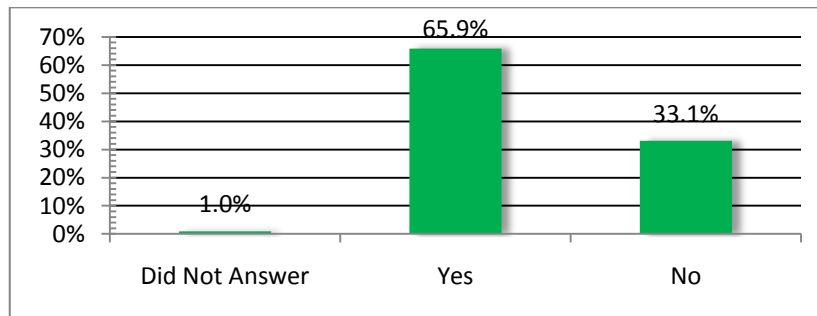


Figure 7

While the majority of respondents have a home with more than one wage earner, a sizeable number of MTs are the sole wage earner. It is difficult to gauge whether the income earned by MTs is “enough,” which can be an extremely subjective judgment to make. At the same time, there is the shared sense among MTs that their financial position is precarious and not improving. Furthermore, when comparing the household income numbers with the question of how many wage earners are in the household, it does become clear that MT income is not necessarily supplemental but likely essential.

An important factor to consider, which was captured throughout interviews and focus groups with MTs, is the extent to which the profession is seen as a core or peripheral aspect of the worker’s identity. For many of those MTs who have been working in the profession for decades, they see themselves as MTs beyond the work they do; it is part of who they are. They likely cannot see themselves doing another job, especially one outside the healthcare setting. So, in many ways, they are “stuck” in the MT profession for better or worse, and are likely to stay regardless of income (unless under dire circumstances). Newer MTs, however, are approaching the profession from the perspective of convenience. The job of transcription is attractive because there are a number of convenience factors associated with it, such as flexible work hours (especially for independent contractors) and the opportunity to work from home. There is the danger that when the lack of reward outweighs the convenience, the person will pursue opportunities elsewhere. As the potential to work from home increases across a variety of occupations and professions, there are a growing number of options.

The retention of MTs in the profession likely is dependent on the economic viability of transcription work. Even when MTs remain, their morale and willingness to evolve their role will in some part hinge on this viability.

LOCATION

Question 8: In what country do you perform your work?

Country	Number	Percentage
United States	3452*	90.99%
Canada	199*	5.25%
India	63*	1.66%
Philippines	53*	1.40%
Saudi Arabia	6	0.16%
North America	4	0.11%
Guyana	3	0.08%
France	3*	0.08%
Japan	3	0.08%
Trinidad and Tobago	3	0.08%
Pakistan	2	0.05%
Australia	2	0.05%
Bermuda	1	0.03%

*Indicates respondents that provided more than one country

Table 1

It is difficult to determine the global distribution of MTs. Also, it is not clear what the actual nationality of a respondent is since the question asked was with regard to where the person worked (versus the person's nationality). Thus, it is entirely possible that a person of one nationality is working in another country. It is, therefore, not clear the extent to which this provides an indication of where work is done versus the nationality of those doing the work.

The results indicate that the survey almost exclusively reached MTs working in the U.S. despite attempts to market the survey globally. As stated previously, those attempts were done through MT discussion boards, communications with MTSOs globally, trade publications, and professional organizations.

MTs in Canada were next highest percentage at 5.25%, followed by Indian-based MTs (1.66%) and MTs in the Philippines (1.40%). However, it is likely that the vast majority of transcription work for U.S. clients still takes place within the U.S.

As transcription becomes more global, it is going to become increasingly important to capture the experiences of those working outside of the U.S. A survey might not be the best mechanism to do this. Visits to India indicate limited online access from home, which would make it difficult to complete an electronic survey. Given the new nature and relative inexperience of the global workforce, there might be a hesitancy to complete a survey due to the belief that the person has little to contribute. Field visits to these sites would then be important to develop a better understanding of the experiences of MTs outside the U.S.

Transcription remains primarily a U.S.-based occupation and profession. This will continue to change to some extent as transcription continues to go global. More focused efforts are needed to understand the global dimension of this profession.

JOB TITLE

Question 9: Please provide your primary job title.

Question 9a: If you have more than one primary job title, please provide your other titles.

The seemingly simple question of job title belies a complexity in how people who perform transcription (and editing) are classified and how they classify themselves. By far, the most frequent response was “medical transcriptionist.” The former name of the professional association was American Association for Medical Transcription (AAMT), which obviously contributed to the larger classification and identification of medical transcriptionist. However, the title of medical transcriptionist is a relatively recent incarnation, with origins going back 30 years. Previously, those who performed transcription either did so in conjunction with other job responsibilities or were generally called medical secretaries. The evolution of the field of medical transcription occurred as the job became more specialized and training began to emerge. For instance, AAMT was not founded until 1978, even though the work of transcription well precedes that date.

The classification of the work continues to evolve with the introduction of new technologies, such as speech recognition, electronic medical records, and electronic health records. It also has evolved with new policies, such as HIPAA, and new procedures for billing and reimbursement. As transcription often is central to health care, it is frequently impacted by changes in the healthcare field. Finally, the environment of the work, be it a large acute care setting, small clinic, MTSO, etc., also has an impact on the work performed and the classification of the person doing it.

Rather than attempt to quantify the total responses to the open-ended question, we grouped the responses into different classification based on whether the response referred to: a) transcription, implicitly or explicitly; b) editing; c) quality assurance; d) some other medical professional work; e) a direct healthcare occupation; or f) a type of office, clerical or professional occupation. As stated, the vast majority of the titles provided referred in some way to transcription (and more specifically to medical transcription). However, there were a range of references to transcription, including the addition of various levels of proficiency, job classification, the specialization type of transcription performed, and the status of the person as independent contractor or employee. Examples of these responses are provided below:

• Medical Transcriptionist	• Vascular Clinic Transcriptionist	• Health Records Transcriptionist
• Transcription Team Leader	• Medical Transcription Specialist	• Subcontractor
• Senior Medical Transcriptionist	• Elite Medical Transcriptionist	• Registered Medical Transcriptionist
• Medical Language Specialist	• Medical Word Processor	• Psychological Testing Transcriptionist
• Transcription Coordinator	• Senior Medical Clerk Typist	• Certified Medical Transcriptionist
• Lead Transcriptionist	• Medical Stenographer	• Typist

Table 2

One of the biggest impacts on MTs has been the introduction of automated speech recognition technology (SRT), which provides a rough text of a dictated voice file that then must be edited for quality, accuracy, and completeness. This has brought about a new type of work, which, while related to transcription, nonetheless is distinct. In our discussions with MTs and those in the SRT industry, it has become clear that while they are related, the skills necessary to do transcription and editing are specific to each. A person who is a “good” transcriptionist may not be a competent editor (and vice versa). We do not have the room here to go into the

details of this, but the separation between the two is evident in the classification assigned to and chosen by those who are engaged in the production of healthcare documentation. Here are some examples of this:

• Speech Editor MT	• Medical Transcriptionist/ Medical Editor	• Speech Editor
• Editor	• Medical Transcription Editor	• Medical Text Editor
• Transcription Editor	• Voice Recognition Editor	• Voice Recognition Expert

Table 3

It is interesting to see that some of these categories may not refer to the editing of SRT-generated documents, but might refer to editing of medical records that have been transcribed by a person. Typically, we might find a separate classification of persons who perform editing, or quality assurance work, of transcribed documents to check for quality, accuracy, and completeness. And this was demonstrated in the types of responses given here:

• Quality Assurance Supervisor	• Quality Assurance Editor	• Quality Improvement Supervisor
• MT Quality Coordinator	• Quality Resource Supervisor	• Quality Analyst
• Quality Assurance Specialist	• Executive Proof Reader	

Table 4

Respondents provided responses that were linked to their roles as managers of medical offices and/or medical information. As technology has increased in the maintenance of medical records and healthcare documentation, the roles of workers have changed (along with the addition of new occupations). While not referring to transcription or editing, these persons nevertheless responded to a survey on medical transcription, indicating that either their work in some way involves transcription or that transcription is done perhaps as another job. This is reflected in the following responses:

• HIS Manager	• Clinical Data Analyst	• Pathology Clinic Coordinator
• EHR Analyst	• Health Information Practitioner	• Medical Biller and Coder
• Health Record Administrator	• Health Records Technician	• Pathology Technician
• Medical Administration Secretary	• Medical Data Technician	• Medical Secretary
• Medical Office Assistant		

Table 5

Another classification of workers made no reference to transcription, editing, or quality assurance work. It is unclear from this survey whether the transcription work is done in conjunction to the classifications or is supplemental to it. Or, in some cases, it might be that the respondent did perform transcription but no longer directly works in this capacity. This is potentially interesting because it would speak to the person still identifying with the profession while not currently performing the work. The opposite may also be possible in that the person performs the work (and thus participated in the survey) but does not identify with the profession, such that the person would put it as a response.

• Accounts Manager	• Administrative Assistant	• Call Center Agent
• Senior Administrative Associate	• Stay-at-home Mom	• Case Worker
• President/CEO/COO/ • Owner	• Deposit Accounts Administrator	• Data Entry
• Physician Recruiter	• Receptionist	• Accounting
• Office Manager	• Office Assistant	• Paralegal
• System Application Coordinator	• Customer Service	

Table 6

Finally, there was a category of respondents that indicated they are involved directly with patient care (in one case, animal patients). While in some settings the work of transcription is separate from those who provide direct health care, it seems in other situations those involved in health care are also involved in transcription and/or editing.

• Registered Nurse	• Nurse's Aide	• Doctor
• Licensed Veterinary Technician		

Table 7

It is likely that this examination of the responses muddies the waters of those who perform transcription and how they are classified. This, however, demonstrates the complexity associated with the field of medical transcription and those who perform the work. The number of people who provided secondary classifications also speaks to this complexity, as well as the versatility and flexibility of those who perform this work. Another aspect of this versatility is the need to have other types of work to supplement what they make in transcription. More needs to be done in order to untangle these aspects of the work and of the MTs who perform it.

EDUCATION AND CREDENTIALS

Question 10: Have you graduated from a medical transcription education/training program?

Question 10a: If yes, was your program ACCP-approved?

Question 10b: If you participated in any type of formal training program, how long was the program?

As demonstrated by Question 2, the MTs who responded to our survey are especially interested in education. This interest in education has likewise been demonstrated in our interviews with MTs.

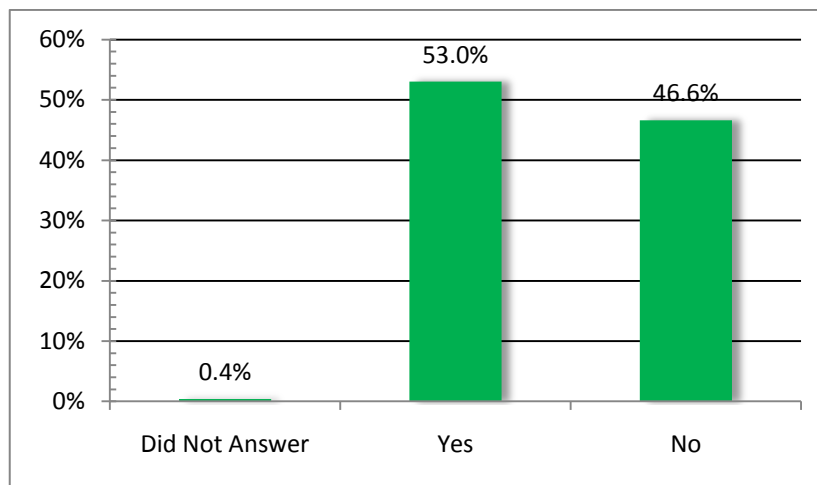


Figure 8

Consistently, MTs with whom we have spoken refer to their desire for more knowledge and their interest in learning more, especially with it comes to medical subject matter. At first glance, this interest in training and education might seem contradicted by the responses that indicate 46.6% of respondents did not graduate from a MT education/training program. However, it must be kept in mind that many of the older MTs entered into the workforce well before there were any MT training programs. The continued interest in continuing education programs and engagement in skill set expansion shows that the belief in education and training is part of the medical transcriptionist ethos.

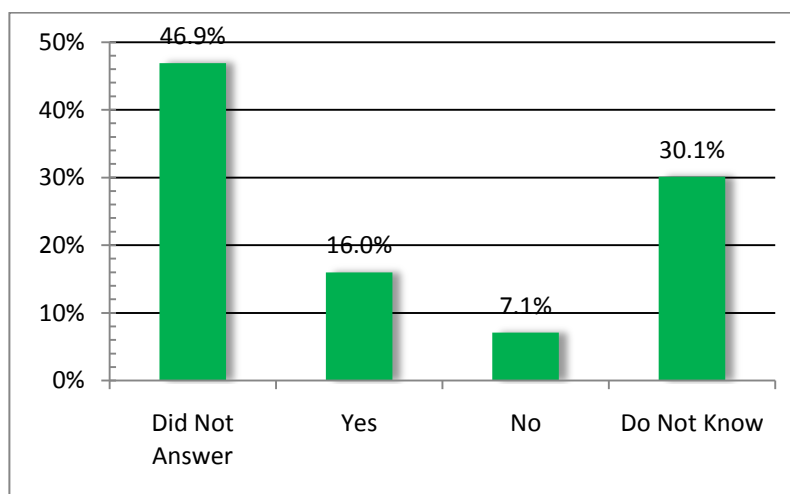


Figure 9

The picture is further complicated by the responses to Question 10a, which asks whether the program (if one was attended) was ACCP accredited. ACCP stands for the Approval Committee for Certificate Programs, which was established by AHDI and the American Health Information Management Association (AHIMA) in order to provide certification for medical transcription education and training programs. At the time of this survey, there were thirteen programs that had received this approval (see <http://ahdionline.org/EducationTraining/NewMTTraining/FindanApprovedMTSchool.aspx>). However, the responses to the question might indicate things that are not directly asked in the question. For instance, it could be that respondents did not know if their program was accredited (as indicated by the 30.1%). It is possible that this number is higher when the “Did Not Answer” percentage of 46.9% is factored in. It is also possible that respondent did not know what ACCP accreditation was. Thus, the 16% “Yes” responses might not be representative of the total number of respondents who attended accredited programs.

Question 11: To what professional organizations related to your work do you belong?

As this question was open-ended, providing respondents with the opportunity to fill in their answers, a range of responses were provided. Overwhelmingly, the number one response was AHDI (formerly AAMT). A total of 1,484 (39%) respondents indicated that they were a member of the national association as well as local chapters. While it is not known how many MTs exist, it is unlikely that 39% of them are members of AHDI. Thus, we can say that the responses to the survey are made up of a disproportionate number of AHDI members. At the same time, it is not clear what impact this would have on the results. Secondly, the majority of respondents still do not belong to the organization.

Furthermore, there were those respondents who indicated that they formerly belonged to the organization but did not renew their membership when the organization changed its name. It is not clear what impact that name change had on membership.

There were 145 respondents (3.8%) who indicated that they belonged to organizations related to medical records and healthcare documentation. This includes groups such as AHIMA, CAHIMA, HIMSS, AAPC, and other health information organizations. The number of respondents who belonged to both AHDI and a healthcare documentation related organization was 2.6%.

Question 12: Which industry credentials (or designations) have you received?

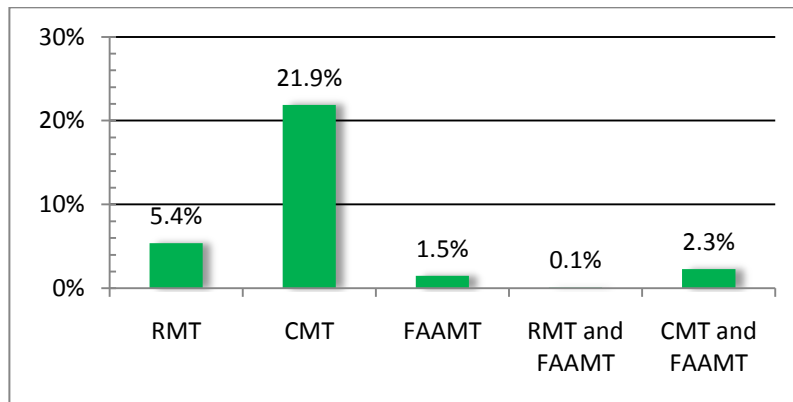


Figure 10

There has been an increasing push in the medical transcription industry for credentialing among MTs. The case for credentialing revolves around issues of quality, privacy, and security. Given the requirements to achieve credentials, it would follow that more of a credentialed workforce would be a more competent and qualified workforce. Whether this is the case or not is beyond the scope of this survey. But, the increasing numbers of people becoming credentialed indicates that members of AHDl do see value in credentialing. Furthermore, MTIA has indicated that they will encourage their member companies to support and advocate for their employees and independent contractors to become credentialed. Finally, there are attempts throughout the U.S. to advocate for policies that call for the credentialing of MTs.

The credentialing process occurs through AHDl, which provides a description of the different levels of credentials and the AHDl designation, as shown below:

CREDENTIAL	DESCRIPTION
Registered Medical Transcriptionist (RMT)	This exam is applicable for recent graduates of medical transcription education programs, or MTs with fewer than two years' experience in acute care. This exam is considered a level 1 exam. Individuals interested in this exam may not hold a CMT credential.
Certified Medical Transcriptionist (CMT)	Individuals interested in this exam should have two years of acute care (or equivalent) transcription experience. This exam is considered a level 2 exam.
AHDl-Fellow (AHDl-F, formerly FAAMT)	Signifies that you have achieved a balance of successful activities in your profession that goes beyond regular transcription practice.

(Descriptions provided from: <http://www.ahdionline.org/EducationTraining/CredentialsDesignations.aspx>)

Table 8

As of June 2008, there were 2674 CMTs in AHDl, as well as 313 RMTs. Of those, 233 CMTs and 21 RMTs are located outside of the U.S. As of August 2008, there were 1999 AHDl-Fellows.

For credentialing to take root, it would be important for MTs (both members and nonmembers of AHDI) to see its importance, as well as see some kind of advantage to being credentialed. Until this occurs, it is not clear what the growth rate will be. Given the need for MTs, it also is not clear whether policies that mandate credentialing (either in the form of RMT or CMT) will be possible to implement, since it would likely result in a shortfall of credentialed MTs.

Furthermore, it is not likely such a policy would be strictly enforced. For instance, the Federal government has struggled with monitoring whether immigrant workers have the proper paperwork to work legally. Without the buy-in from everyone involved, including MTs, MTSOs, health information managers, and healthcare providers/administrators, it is not likely that any policy would result in strict compliance.

Question 13: In addition to your professional training, in which of these professional continuing educational opportunities have you participated in the last five years?

Overall, 13.9% of respondents indicated that they participated in some form of continuing education. Of those who did participate in these opportunities, each person took part in an average of three different types of programs. The chart illustrates which types of continuing education were the most popular. By far AAMT/AHDI publications accounted for 43% of affirmative respondents. This was followed by publications from other associations and organizations (27.4%) and online courses (23.4%). Those who filled in the “Other” category listed Internet-based learning opportunities, higher education opportunities, employer and/or hospital-based opportunities, and conferences and other kinds of professional gatherings.

It will be important to determine the characteristics of those who participate in these programs. As the industry begins to move more toward credentialing, these types of opportunities will likely become more important. It will also be important to have infrastructure in place that can support this increased demand.

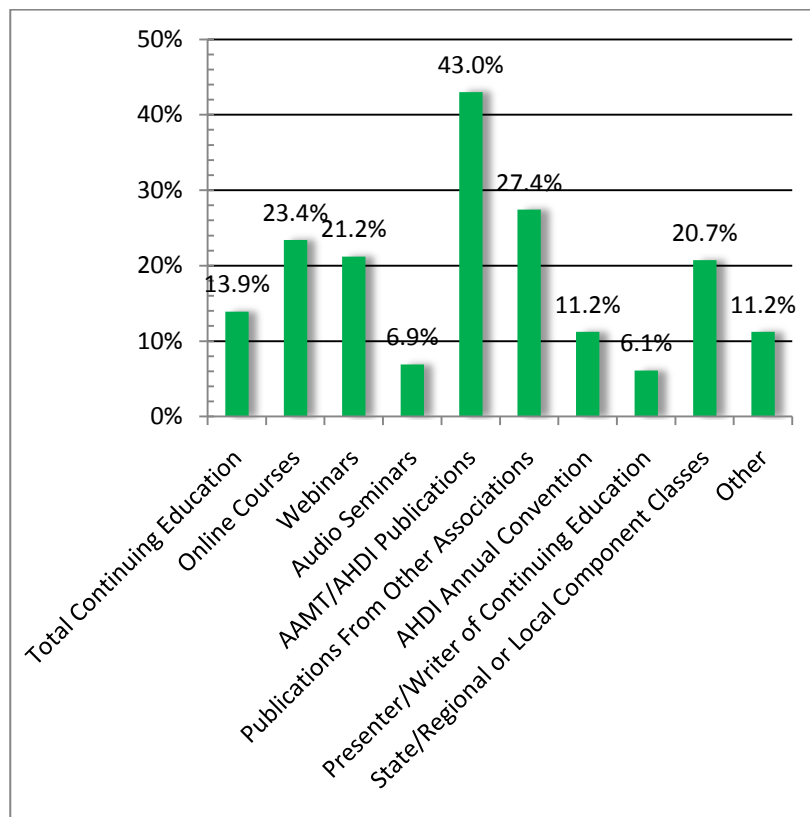


Figure 11

WORK EXPERIENCES

Question 14: For how many years have you been working in the medical transcription field?

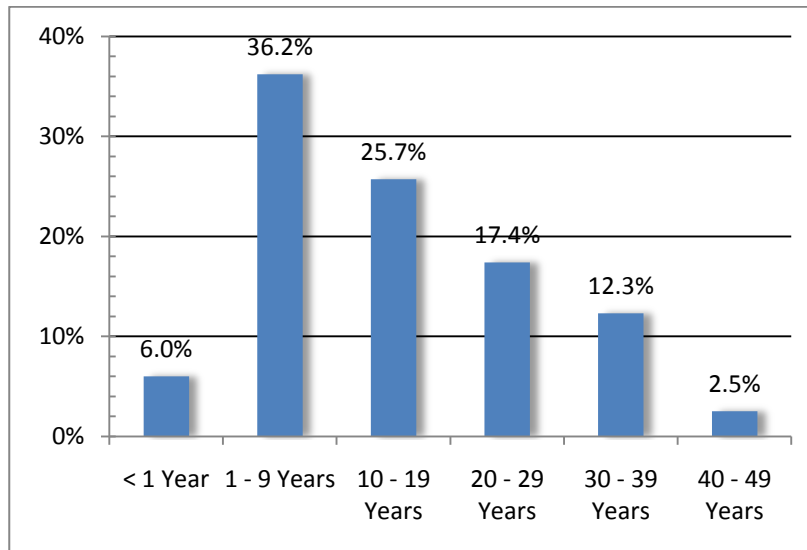


Figure 12

People have been working in the transcription field before there officially was a transcription field. Prior to the establishment of the field of medical transcription as its own entity, transcription was being done oftentimes by office managers or secretaries on whom the responsibility of transcribing fell. Many MTs who have been in the profession for over thirty years talk about how they “found” the work of transcription through their association with health care in general. Few people identified medical transcription as a field they wanted to directly enter. The organization now known as the Association for Healthcare Documentation Integrity (formerly the American Association for Medical Transcription) was founded in 1978. After that time, the field of medical transcription increasingly became established as its own profession, despite the fact that the Department of Labor only recently recognized medical transcription as its own field with a standard occupational classification (31-9094). Now, medical transcription can be identified as a field into which people want to enter.

This is reflected in the responses to Question 14 with regard to the number of years in which respondents have been working in the MT field. It is easy to discern the disparity between “newer” MTs and those who have been working in the field for over 20 years. This is a primary area of concern for MTs as well as employers. The lack of experience is a critical factor when hiring employees. New MTs are frequently faced with a two-year minimum experience requirement when seeking new employment. Three hundred eighty-two respondents (10.2%) indicated that they had less than three years’ experience. While a small number, it is not insignificant when considering that 10% of the respondents may have difficulty getting work in a profession for which they have trained specifically. This is an area that transcription companies have been trying to address by encouraging the hiring, apprenticing, and mentoring of new MTs. However, new MTs can be an additional cost since their work will initially require proofing for accuracy by a QA specialist, whereas the work of more experienced MTs typically is randomly audited, generally on a monthly or quarterly basis.

Question 15: Approximately how many employers have you worked for?

Zero	62	1.7%
One	757	20.5%
Two	750	20.3%
Three to Five	1476	40.0%
Six to Nine	449	12.2%
Ten to Thirteen	149	4.0%
Fourteen to Seventeen	24	0.7%
Eighteen to Twenty-one	9	0.2%
More than Twenty-two	16	0.4%

Table 9

Question 15 provided respondents with the opportunity to fill in their own answer regarding the number of employers for whom they've worked. Not everyone responded in a clearly discernible way. For instance, a small number of responses were "many" or "too many to count." Other respondents gave estimates of how many employers they have had, which in and of itself provides some insight into how frequently MTs change companies.

The responses show that moving from one company to another is the norm in medical transcription and is not necessarily an unusual phenomenon in today's society, in which lifelong employment at one company is a rare occurrence. What perhaps is most striking are the upper estimates provided by respondents. It is not clear whether these responses are for full-time or part-time employment. Also, some respondents may have provided the number of accounts they transcribe versus number of employers. So, they may work for one MTSO but have worked on multiple accounts over that time span. Finally, it will be important to ascertain to what extent job transience impacts newer MTs versus those who have worked in the field for more prolonged periods.

Question 16: Are you currently primarily employed as a/an:

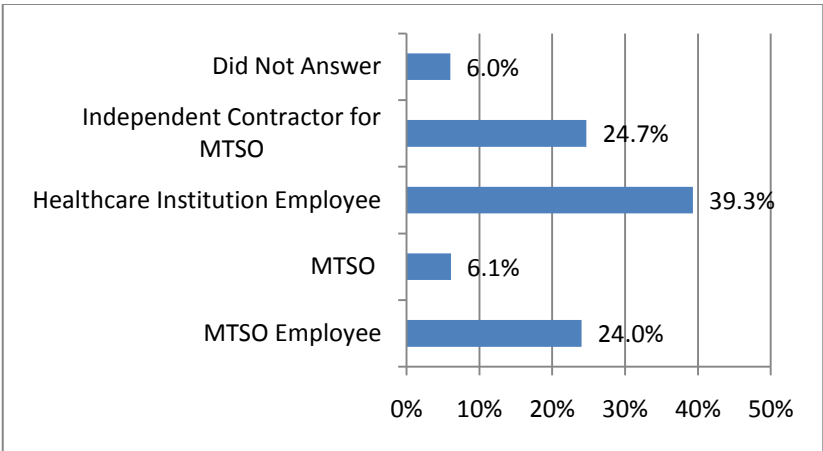


Figure 13

MTs are employed across a range of environments, as indicated in the responses to Question 16. MTs formally resided prominently in healthcare settings or worked directly with healthcare institutions. There is a growing trend toward working for MTSOs. Despite this, the largest percentage of workers who responded includes employees for a healthcare institution. When combined, however, MTs predominantly work in association with an MTSO (54.1%), demonstrating the outsourcing nature of the transcription process. It is important to note that included under “MTSO employees” is the percentage of both independent contractors and employees. Beyond belonging to the same category, it is not clear to what extent ICs and employees experience similar pay and benefits (if any benefits are applicable). There potentially is significant variation across MTSOs regarding compensation and benefits despite the use of common descriptors.

Question 17: Where is your work primarily performed?

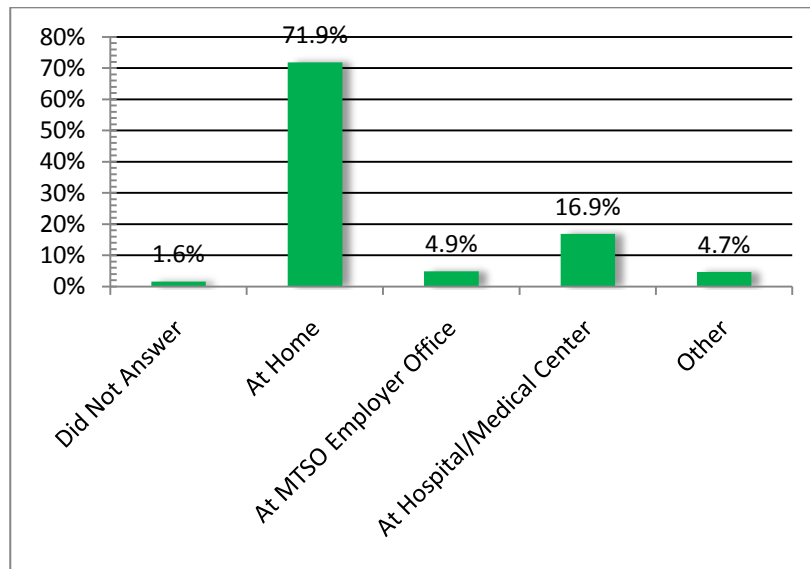


Figure 14

One of the most significant transformations in the work of medical transcription is its movement from the healthcare setting to the home. This has been facilitated by the advent to technologies that allow for a greater ease of transferring voice files and medical records between healthcare institutions and the place where the transcription is performed. While MTs have historically been able to receive tapes at their home, and subsequently deliver the finished products to the dictators, this distribution obviously was limited by geography. This changed when voice files and records went digital and high-speed Internet connections in the home allowed for easier transference between locations.

This transformation is reflected in the survey responses, which indicate that 71.9% of respondents work primarily from home. It is important to recognize that the question did not ask whether one works exclusively from home, because there are those who split time between working from home and collaborative office settings (such as when working for a healthcare institution). However, the fact that the vast majority work primarily from home indicates the extent to which this relocation of transcription from the medical setting to a domestic one has become the dominant mode of work.

The importance of this has yet to be fully understood. One of the biggest challenges that MTs say they face is recognition for the work they perform. The fact that they are not located in the healthcare setting contributes to this lack of visibility. There are also issues of collaborative versus independent work, collective versus individual problem solving, co-located versus distributed knowledge sharing, and developing affiliation identities with the locations and persons for which transcription is being performed. All of these issues will need to be examined in more detail with careful study of the actual performance of medical transcription.

Question 18: How are you compensated for your work?

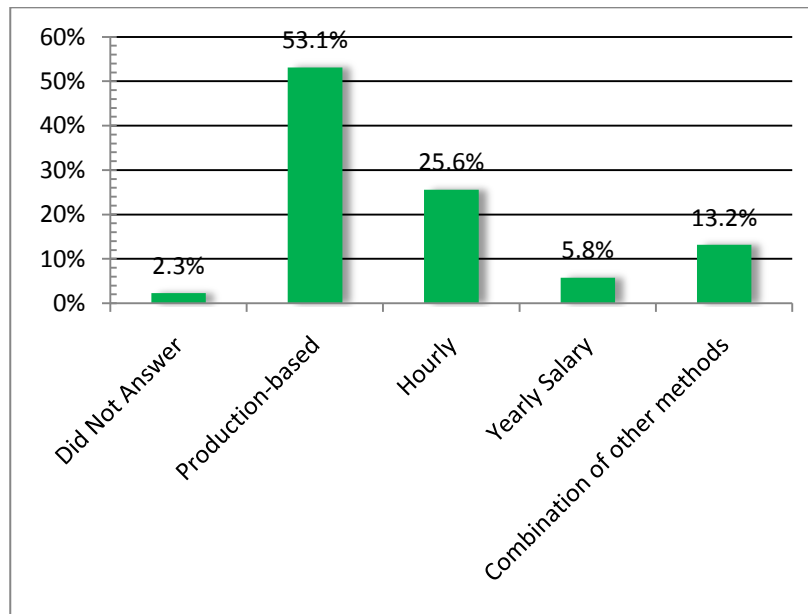


Figure 15

One of the primary challenges for MTs is how they are compensated. Along with wage issues is the issue of unit of compensation. The majority of MTs are paid per production unit. Most generally, this is “per line.” The introduction of speech-recognition technology has changed this equation, with MTs being paid as “editors,” resulting in a decline in per-unit pay. In this scenario, it is expected that an increase in productivity (due to “reading” versus “typing”) will offset the decrease in per-line pay.

The general stagnation of MT salaries (which has been felt across numerous industries and workforces) has increased personal pressure to increase production. It remains unclear what the short-term impacts (in terms of accuracy) and long-term impacts (in terms of physical ailments) of this change will be. Also, hospitals are increasing the pressure for cheaper and faster service, looking to stem the tide of their own rising costs by increasing savings on healthcare documentation production. This is based on a general devaluation of the work that MTs do.

While it is thought that MTs “just type,” in which they are positioned as producing a commodity, this is in fact not the case. MTs are essential not only to health care by providing accurate medical records, but also to a hospital’s or healthcare provider’s revenue cycle. Doctors themselves do not generate revenue; documents generate revenue. In other words, reimbursement is based on the extent to which the document accurately and completely reflects, across a variety of user constituencies, what occurred in the medical encounter and treatment. Without the work of the MT, everything else that occurs “downstream” has an increased potential for breakdown.

Question 19: Are quality standards part of your compensation or bonus structure?

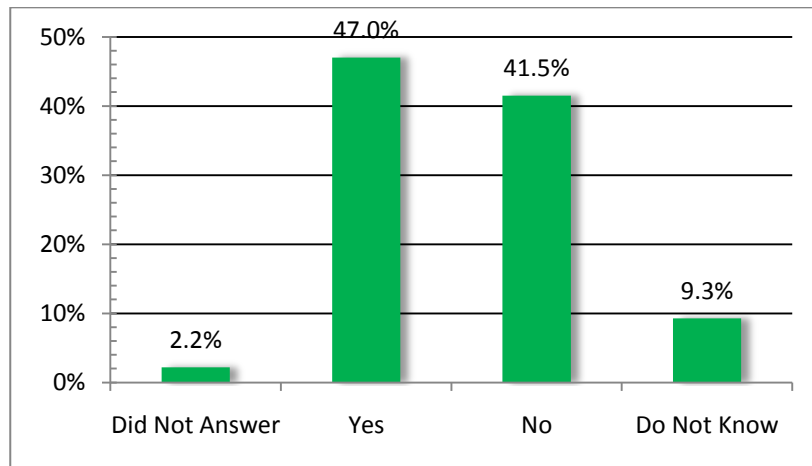


Figure 16

Quality, along with turn-around time and pricing, is one of the most important aspects of healthcare documentation production. Along with the patient safety considerations associated with medical records, there are revenue-cycle considerations as well. Since coding and billing are frequently done from the medical records, accurate, precise, and consistent records are vital to this process. This especially is true when considering concerns of recovery audits in which records are surveyed to determine whether billing matched the treatment and procedures described in the record.

It, therefore, is surprising to find that nearly half of respondents said that quality standards are not part of the compensation or bonus structure. It could be argued that quality is part and parcel of transcription work. It is expected that MTs provide quality transcription, meeting or exceeding the 98% accuracy rate that is generally offered as the baseline for quality. At the same time, providing compensation or bonuses for consistent excellence would likely be important to MTs if not for the financial benefit, also as a symbol of appreciation and in identifying exceptional competence. Interviews with MTs showed a desire for such compensation and recognition.

Question 20: Do you generally transcribe for:

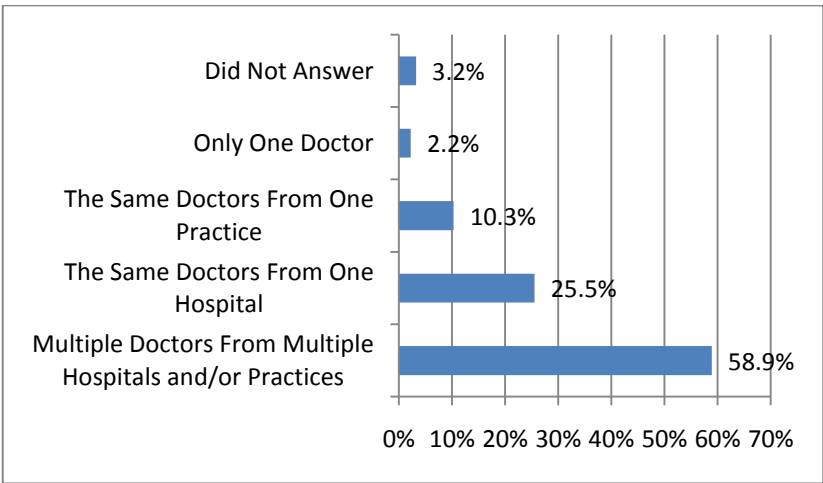


Figure 17

The other significant aspect of the MT job is the number of doctors for whom they are transcribing and editing. MTs overwhelmingly have to transcribe for multiple doctors from multiple hospitals and/or practices (58.9%). This is important because MTs must become accustomed to how healthcare practitioners dictate their notes. This is especially the case for clinicians with poor dictation habits. Over time, MTs develop an “ear” for dictators, enabling them to complete their job more quickly and accurately. When transcribing for multiple doctors, this process can be more prolonged, meaning that once they achieve a level of proficiency it is important that they have the opportunity to continue with those dictators. Furthermore, when transcribing for multiple doctors and hospitals, MTs must learn a wide range of document styles and protocols (due to the lack of standardized reporting formats). This further complicates the task of MTs whose accuracy scores are dependent on meeting these widely divergent expectations. Referring back to the issue of compensation and training, it is imperative for the industry that the proper incentives, career trajectory, and general recognition exist to keep MTs committed to the profession.

Question 21: If more than one doctor, approximately what is the number of different clinicians for which you transcribe?

1 – 49	1628
50 – 99	458
100 – 199	425
200 – 299	176
300 – 499	96
500 – 999	101
1000 – 1999	42
2000 – 2999	22
3000 +	18
Hundreds	78
Don't Know/(Too) Many	211

Table 10

One of the challenges of being an MT is developing a familiarity with the dictators for whom they transcribe. Dictators have their own nuances, idiosyncrasies, patterns, and peculiarities that shape their speech. Repeated exposure to the same dictators allows for MTs to quickly understand these patterns and decipher what can be difficult voice files. The more dictators to which you are exposed, the more difficult this can be to develop. It is not clear at what point the number of dictators outpaces the ability to develop a familiarity. It is possible that MTs develop classifications for “types” of dictators into which they can place new dictators, thereby making large numbers of dictators more manageable. However, when considering that some respondents indicated that they transcribe for “hundreds” (if not thousands) of dictators, it is difficult to imagine how this dictator management is possible.

This is not just an issue for those working for MTSOs. MTs at large acute care facilities are also faced with a large number of staff for whom they are responsible. This is compounded when working in association with teaching hospitals, which have regular influxes of residents who do not know how to dictate efficiently.

Of course, part of this is related to experience. The more familiarity with transcription, the more the MT can assimilate new dictators. It is not clear to what extent new MTs are exposed to a large number of dictators or whether the numbers are controlled as they develop a familiarity of specific dictator characteristics, as well as traits and patterns associated with different specializations. This is a topic that is in need of more in-depth research to identify the progression through which new MTs should go in order to develop dictator pattern familiarity that would allow them to assimilate great numbers of dictators.

Question 22: For what medical specialties do you typically provide transcription services?

It is difficult to discern a clear pattern of responses to this open-ended question since there was wide variation in the types of responses given. In a basic sense, the most identifiable pattern is that MTs transcribe for a range of specializations. For instance, only 477 respondents indicated that they transcribe for one specialization. Beyond that, MTs are responsible for knowledge that spans across medical practices. This is indicated by the number of respondents who said "All." Of course, it is not clear that everyone has the same sense of what "All" means. But in the least it is clear that MTs see themselves as responsible for knowing a wide range of specializations.

One larger question would be: What is required upon entry and how do MTs evolve over time in terms of acquiring greater knowledge of a range of specializations? There is some indication of this in the data set gathered through the survey. This needs to be explored in more detail. Also, MTSOs and MTs need to be queried as to their own experiences and whether this is a consideration in their business process.

Question 23: Please rate the types of dictator characteristics that make transcription difficult.

	Not an issue	2	3	4	Significant issue
Speed of Speech	11.3%	16.8%	23.3%	20.7%	27.7%
Clarity of Speech	2.7%	6.0%	15.9%	25.4%	49.9%
Background noise	5.7%	14.5%	23.7%	25.9%	30.1%
English as Second Language	8.7%	13.4%	23.9%	23.3%	30.7%
Regional US Accents	38.1%	28.5%	22.2%	8.3%	2.9%
Excessive Abbreviations	31.4%	29.3%	21.7%	11.0%	6.6%
Eating and Drinking	18.9%	24.9%	23.9%	15.9%	16.4%
Organization of Information	14.7%	24.8%	28.6%	20.4%	11.5%
Poor Grammar	19.3%	31.2%	26.9%	14.3%	8.2%
Dictator Errors	10.0%	29.7%	29.4%	16.4%	14.5%

Table 11

Medical transcription is not an individual act. The MT is part of a more broad chain of work that is interdependent. This extends back to the doctor-patient encounter where the original information is collected, dictated, transcribed, reviewed by quality assurance personnel (when applicable), and accepted. Coding and other health information management functions are also part of this process, as many parts of health care depend on the medical record and associated healthcare documentation.

Most fundamentally, the process hinges on doctor dictation and medical transcription. Thus, when talking to MTs, they often discuss what makes for a good and a challenging dictator. Question 23 thought to examine some common complaints regarding what kinds of dictator characteristics make their job challenging. Using a 5-point scale, we queried respondents on: a) speed of speech; b) clarity of speech; c) background noise; d) English as Second Language; e) regional U.S. accents; f) excessive abbreviations; g) eating and drinking while dictating; h) organization of information; i) poor grammar; and j) dictator errors.

In terms of what factors that are most significant, clarity of speech is by far cited most by respondents. It is interesting to see that it is more important than English as a Second Language (ESL) (30.7%). While it is true that ESL dictators can be less clear, research has also demonstrated that ESL dictators can be more conscientious than native English (or native U.S.) speakers. Conversely, there is some indication that people who are native English speakers take for granted that they can speak English, and therefore are not as careful to speak clearly. So, clarity of speech cannot solely be placed upon ESL dictators.

Background noise also figured as a prominent issue. While perhaps not under the complete control of the dictator, it can be argued that it is related to the point of whether dictators are aware of the person who has to listen to the dictation. Through interviews with MTs, numerous stories were told about dictators discussing personal details with persons “off mic” that they would not likely discuss in front of strangers. This all paints a picture of a lack of “recipient awareness,” meaning that there is a lack of awareness of the person who is the receiver of the information.

In terms of the least important issues, regional U.S. accents was first (38.1%) followed by excessive abbreviations (31.4%). It is important to note that this does not mean these issues are not important because there are indications in the results (as in interviews) that these things can matter and impact the job of the MT. But, in the scope of things they are not a central concern to the extent that the other issues are.

Question 24: What percentage of voice files that you transcribe/edit have the following types of *dictator* errors?

Question 24 asked MTs to provide their sense of how often they face commonly cited dictator errors. There is no “hard” evidence of whether this is the case, which is an issue that needs further detailed study to ascertain. So, it is not possible to use the following responses as an actual representation of how frequently these types of errors in fact occur. It does provide an indication of the perception of MTs, as well as an indication of their experiences with the types of dictator errors.

	Zero	1% to 24%	25% to 49%	50% to 74%	75% to 100%
Wrong drug or drug doses	18.5%	72.7%	7.1%	1.5%	0.3%
Wrong lab values	29.3%	67.7%	2.4%	0.4%	0.1%
Wrong test names	36.6%	60.7%	2.1%	0.3%	0.2%
Incomplete patient ID	7.0%	52.9%	20.1%	11.5%	8.6%
Inconsistent condition or labeling	23.0%	63.6%	9.3%	2.7%	1.5%
Inconsistent diagnoses in dictation	20.3%	71.9%	5.9%	1.2%	0.7%
Incorrect verbiage	3.9%	50.5%	23.1%	13.5%	8.9%
Grammatical errors in dictation	1.4%	38.7%	25.4%	19.0%	15.5%

Table 12

The table shows the range of responses given by MTs. It is difficult to determine whether the values constitute “a lot” or “a little.” There is a classification of errors provided by the AHDI Best Practices in Quality Assurance handbook. These classifications provide the following description of error types committed by MTs in their work:

- Critical Errors, defined as those which impact patient safety: Specifically, AHDI identifies the following: medical word misuse, incorrect drug or drug dosage, incorrect lab values and test names, omitted dictation, patient identification error.
- Major Errors, defined as those which impact document integrity: Specifically, AHDI identifies the following: medical word misspelling, English word misspelling, incorrect verbiage, failure to flag a document, abuse of flagging documents, protocol failures.
- Minor Errors: Specifically, AHDI identifies the following: grammar, punctuation, typographical errors, formatting errors.

There is a separate classification for “Dictator Flaws,” which is defined as: *Specifically, AHDI identifies the following: critical, major, and minor as defined by patient safety and document integrity impact. It is crucially important to realize the impact auditory quality of the dictation has on the transcribed document.*

Thus, while there is attention given to the fact that dictators can (and do) make errors, more focus is given on the types of errors made by MTs. The responses of MTs demonstrate the types of errors they report by which they are confronted. The number one issue in terms of frequency is “Grammatical errors in dictation,” followed by “Incorrect verbiage” and “Incomplete patient identification.” This is borne out through conversations with MTs, as well as through observations of them at work. What this does not measure is the impact on their work

in terms of how much additional time it can take to complete the work. For instance, incomplete patient identification can be a major frustration for MTs because they have to then hunt for the correct information that should already be provided. The same can be said for incorrect job numbers. What seems like a minor inconvenience turns into major complications when trying to develop a flow of work.

When looking at the table, it might appear that errors which can be considered major occur relatively infrequently. Table 13 shows a breakdown of the Zero and 1% to 24% categories to get a better idea of the distribution of responses. For any critical errors, once is too often. So, the range of 1% to 24% can be misleading. The table illustrates what proportion of the total number of answers in the 1% to 24% range is accounted for by: a) Zero; b) 1% to 9%; c) 10% to 19%; and d) 20% to 24%. What this shows is that while there is still a reported infrequency of potentially major and critical dictator errors, they still occur. A more careful study of types of dictator errors across a sample of voice files needs to be done in order to better determine the actual frequency of these occurrences (beyond MT self-reports). While no conclusive findings can be drawn from these responses, they do indicate a potential problem in medical dictation and the need for some measure of quality assurance in the process to better guarantee patient safety.

	Zero	1% to 9%	10% to 19%	20% to 24%
Wrong drug or drug doses	20.3%	60.2%	19.6%	0.0%
Wrong lab values	30.2%	53.9%	13.0%	2.9%
Wrong test names	37.7%	50.6%	9.9%	1.8%
Incomplete patient ID	11.6%	43.2%	30.8%	14.3%
Inconsistent condition or labeling	26.5%	47.3%	19.5%	6.6%
Inconsistent diagnoses in dictation	22.0%	54.6%	18.8%	4.6%
Incorrect verbiage	7.2%	41.6%	33.1%	18.1%
Grammatical errors in dictation	3.6%	36.9%	37.0%	22.5%

Table 13

Question 25: After flagging a potential error, how frequently are you told of how it was resolved?

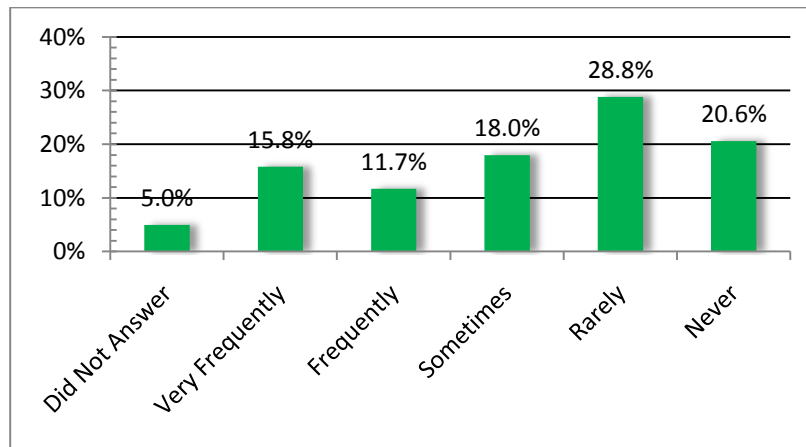


Figure 18

An important part of any job is learning from mistakes as well as getting clarification for questions so that the worker has a greater certainty when encountering a repeated challenge. Therefore, communication of questions becomes extremely important. However, this can be challenging when working in a distributed environment, as so many MTs do.

The answers to Question 25 indicate that there is a potential breakdown in the communication between MTs and those who are in a position to provide clarification around questions and uncertainties. It was indicated that 20.6% of respondents indicated that they are never told of how a flagged item is resolved. This is followed by 28.8% of respondents that are told “rarely.”

This does not account for those MTs who try to find out on their own how an issue was resolved. Usually, in order to do so one must have access to the final record that was approved by the dictator. If an MT does not have such access and is not told of the resolution, then it is likely that the person will not be able to advance their knowledge in order to know how to address the issue in the future.

More study is needed regarding the impact of problem resolution reporting on MT work. We might guess that MTs who are told of how something was resolved are in a better position to do their job in the future. However, such a hypothesis needs to be confirmed so that it can be implemented as a “best practice” solution to the healthcare documentation creation process. A further issue for deeper exploration is the nature in which the information was conveyed.

Question 26: What kinds of support/resources do you draw upon when doing your work? Choose all that apply.

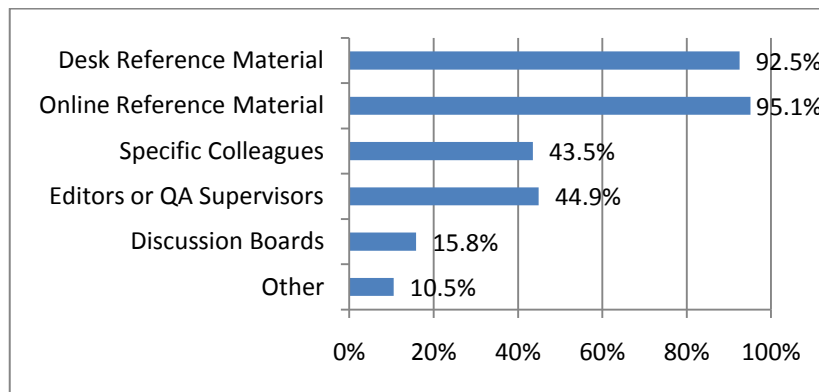


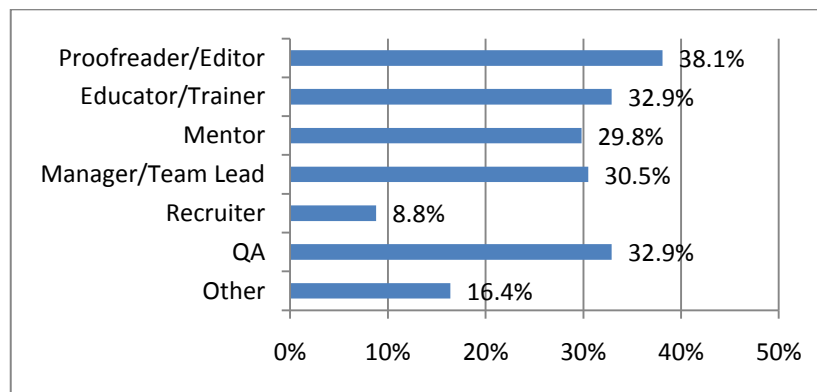
Figure 19

For Question 26, respondents were given the opportunity to choose any resources they use when doing their work. By far, desk reference materials (92.5%) and online reference materials (95.1%) were used most frequently. It is unclear why so many fewer people utilize “specific colleagues” and “editors and QA supervisors” as a resource. It is possible this is due to the distribution of work, making it easier to consult reference materials than colleagues. Also, for a MT working as an independent contractor, she/he might not be aware of other colleague with whom one can consult. It is interesting that one of the means of virtual collaboration, the discussion board, is infrequently used.

It should be noted that those who responded to the “Other” category did make mention of resources that were provided in the questionnaire. Below is a summary of these responses:

- Patient records: e.g., saved reports, EMR/EHR searches, patient’s chart, hospital files
- Dictator
- Own resources: e.g., personal notes, individual experience, textbooks, handouts, sample reports
- Coworkers and other MTs: e.g., regular meetings, other transcriptionists, discussion boards, instant messaging, local AHDI chapter
- Websites and software: e.g., search engines, software reference materials, internet, electronic references
- Medical personnel: nurse, nurse practitioner, pharmacist, physician assistants
- Team leads and employers

A question remains with regard to how these types of resources are used and the factors that influence their use. Convenience of use does not necessarily equal quality of resource. Something that might be easier to use might not be as useful as another method. If consulting with co-workers or other MTs would be a preferred method but is seen as too difficult, attention could be given to making these communications easier to have. More investigation needs to be done in this area.

Question 27: Please indicate in which roles you have worked. Choose all that apply.**Figure 20**

Question 27 was meant to ascertain the range of work experiences possessed by MTs. If taken together, respondents have largely worked in some kind of role as a proofreader/editor (38.1%) and in QA (32.9%). This demonstrates a progression and evolution of MT work. Today, many MTs both transcribe and edit based on the extent to which speech recognition is integrated into their work. This is not to say that the jobs are interchangeable. On the contrary, our research indicates that the skill sets are distinct. While drawing on common knowledge base, the performing of the work can be very different on a variety of levels, most generally dealing with checking for errors versus composing and constructing reports. We have heard concerns from more experienced MTs that newer MTs are more likely to suspend their own judgment for that of the technology.

Other MTs report that editing is a higher level skill than traditional transcription. The same kinds of sentiments were expressed regarding doing the work of QA. We have encountered MTs who have tried to do QA work, only to find that “it wasn’t for them.” Again, while it draws upon a common knowledge base, it is in fact a different kind of work.

It is not clear for those who responded to Educator/Trainer (32.9%) and Mentor (29.8%) exactly what was entailed in this work. For instance, it is not known whether one was working in a formal educational environment, providing training programs at work, or informally educating and training other MTs. Likewise, the role of “Mentor” could be an official and/or unofficial designation.

In terms of the “Other” responses provided, the number one classification was simply “medical transcriptionist.” Other responses included MTSO owner, supervisor, technical support, and a range of other types of jobs.

CONCLUSIONS

Medical records lie at the heart of health care. While it is true that a doctor can provide care without any documentation to give guidance, not much else is possible without a record to accompany the procedure. Doctors don't get reimbursed, researchers can't track outbreaks, and treatments are forgotten. Given the importance of medical records, it would seem that there would be interest in how they are created. Oddly enough, this has historically not been the case. Doctors and hospital administrators likely are only vaguely familiar with what is involved in creating their records (when in fact the responsibility lies with someone else). Thus, transcription becomes a line-on-a-budget sheet, and the people who do the work simple FTEs. Those who do the work can get lost in discussions of lowering costs (by reducing MTs and pay per line) and increasing efficiency (by using more technology).

This survey was part of a larger project to understand the work done by medical transcriptions and their role in making healthcare documentation. The survey represents the first time that MTs were polled for the details of their work. Changes have been happening very quickly in the realm of healthcare documentation, with ever-evolving technology and public policy changes that have been affecting medical transcriptionists since this survey was done in 2007. In many ways, some of the data here may provide us with more of a historical versus a contemporary view. At the same time, there is much in this report that is still relevant to any discussion of MTs. Undoubtedly, there will be the need for a follow-up survey to gauge the amount of change that has taken place. Until that time, the results from this survey can provide an initial baseline from which change can be measured.

The biggest questions that need to be addressed in terms of medical transcription are: *What is the future of the MT, and where does transcription fit into healthcare documentation production?* MTs are facing what all workers face when "labor-saving technology" is introduced into the workplace. But MTs are more than just production workers; they are knowledge workers. When this knowledge is replaced by technology that does not have the same level of knowledge, intelligence, and professionally-based sense (versus common sense), workplace disruption is likely to follow. Electronic health records and speech recognition technology are not so much labor-saving technology as *labor-shifting* technology. Functions formerly done by MTs are now being foisted upon doctors and other healthcare personnel who are already stretched by competing demands for their time. Invariably this will mean that functions performed by MTs will diminish. Documents will be proofread and edited less, narrative summaries may be less complete and less coherent, problems with documentation may go increasingly unresolved, and the machinery of health care that moves on the gears of documentation may function less smoothly.

This is not to forecast a complete breakdown of the healthcare system. We already have seen that where MTs are removed, health care still proceeds. However, this likely has less to do with the quality of documentation being actually improved (or at least maintained) and more to do with people's willingness to accept and use documentation that is inferior to what they have previously experienced. In my own conversations with doctors, when I point out problems with documentation as a result of such large changes, the typical response is, "Sure it might not be correct, but it is good enough." The question becomes "Good enough for whom?" People have lost healthcare coverage through the process of rescission due to errors in medical records. Personal health records are increasing, and with it potential changes to patient-doctor relationship as a result of this shared documentation. A national health information network creates the potential for continuity of care *only if* the information that is being networked is of sufficient quality to create continuity in care.

Within all these changes stands the medical transcriptionist. One development of interest is the emergence of *scribes*, who follow doctors and document patient encounters into the EHR system, thereby shifting back the responsibility from the doctor to another person. Ironically, this is precisely where transcription started: with the MT (or medical secretary at the time) being situated in the patient encounter, taking short-hand while the doctor performed the procedure. Thus, we have come in a full technological circle, with pad and pen being replaced by iPad and digital pen. Other opportunities such as tagging, abstracting, customizing records for different audiences, data mining, and data cleaning are emerging as well. Taken together, the prognosis may be less life or death and more evolution and metamorphosis.

Whether for better or for worse, these changes represent exactly that: change. In order to evaluate the changes taking place, we first have to understand what existed before the change. This project, and this survey more specifically, has been an attempt to do so. This is too large of a topic to be adequately answered by one survey. There is still much work to be done to adequately capture the work of MTs, the impact of changes in producing healthcare documentation to the documentation itself, and what it will all mean to the machinery of health care. When people have asked me when this project will be done, I always answer, "Never, because the changes are too constant and too great to ever be called complete." Thus, we are left with incremental increases in our understanding of and appreciation for those whose work has helped form and shape our medical lives in the documents they have produced. At least now we can say that MTs are on the radar.