

WHITE PAPER

**Cost Savings with  
Computer Aided Medical Transcription**  
*— Three Case Studies*

## Introduction: The Million Dollar Question

On the television game show “Who Wants To Be A Millionaire,” Meredith Vieira often asks her contestants what they would do with the million dollars if they were to win it. Would they travel? Quit their job? Buy a new house?

A similar question might be asked of a hospital or clinic. If your healthcare organization could save a million dollars on its transcription costs, how else might the money be spent? On facility construction? Updating medical equipment? Hiring additional staff? The possibilities are intriguing.

The eScription on-demand platform for computer aided medical transcription (CAMT) has helped numerous healthcare organizations do just that: drastically reduce their transcription costs. When healthcare organizations save money, the inevitable result is improved patient care, so everyone benefits. As many organizations operate on small margins, saving a million dollars can represent a significant portion of their profit or loss.

Over 30% of customers who have had the eScription platform installed for two or more years have saved over \$1 million. The million dollar question is, how did they accomplish this?

## Dollars and Sense: How Computer Aided Medical Transcription Helps Healthcare Organizations Cut Costs

In the traditional transcription model, a clinician dictates and a Medical Transcriptionist (MT) listens to the dictation and types up the clinician’s notes. In computer aided medical transcription, intelligent, background speech recognition software creates a draft document from the dictation which an MT then reviews and edits, rather than typing from scratch.

Because it is faster to edit than it is to type, computer aided medical transcription results in significantly more productive MTs. This phenomenon has important cost savings implications for healthcare organizations, whether they have an in-house transcription team, rely primarily on outsourced Medical Transcription Service Organizations (MTSOs), or a combination of the two.

From an in-house perspective, gains in transcriptionist productivity translate into greater resource capacity. This means doing “more for less” or reducing the need for additional outsourcing expenses for overflow work. The better the software is at creating increasingly accurate, formatted drafts, the greater the volume of documents that can be processed by internal MTs, at an increasingly faster rate over time.

Some healthcare organizations opt for outsourcing transcription services. MTSOs that are primarily editing can charge less for the service they provide, saving their transcription customers even more.

This white paper demonstrates how three different healthcare organizations saved substantial amounts of money by working with Nuance and using the eScription platform for computer aided medical transcription. Understanding where the cost savings came from in each case may help you determine how the eScription platform can do the same for your healthcare organization.

## CASE STUDY #1: Maine Medical Center

### Background

Maine Medical Center, located in Portland, is Maine's largest hospital. This 606-bed facility is a major referral center for northern New England. It is both a teaching hospital and an active research center, providing comprehensive services in a wide array of medical specialties.

### Challenge

In 2000, transcription volumes at Maine Medical were steadily growing across medical groups in its multi-location campus. The existing manual transcription system was spread out across four different platforms which were expensive and not integrated with one another. There was increasing pressure from administration to control costs and reduce the transcription budget while simultaneously handling the increased demand.

There were also challenges on the workforce side of the equation. Rising labor costs and increasing competition for the most highly skilled MTs meant that it was not practical to hire additional MTs as a response to rising transcription volume and the resulting backlogs.

### Goal: Increase Productivity

Given the labor situation, Maine Medical might have chosen to outsource a larger portion of their transcription volume to MTSOs. However, after weighing the options, it instead chose to concentrate on improving the productivity of its existing in-house MTs. Administration viewed outsourcing more as an intermittent stopgap measure rather than a long-term solution to reducing transcription backlogs.

In the organization's view, this approach had several advantages: more work could be produced without having to increase staffing levels; less outsourcing would be required; transcription quality and turnaround time would be improved; and employees would feel more highly valued by the organization, thereby creating a more cohesive team.

### Results

Maine Medical selected the eScription platform as its exclusive transcription platform in order to realize these benefits. HIM Director John Avedian stated, "If our transcriptionists are more productive, the cost savings will follow. This will benefit not only the HIM department but also the entire organization." In addition, Maine Medical would be able to achieve economies of scale by using a single, web-based transcription platform rather than four separate systems.

Using the eScription platform as its computer aided medical transcription solution, Maine Medical achieved the following results between 2002 and 2005:

- Additional in-house capacity due to increased productivity meant less outsourcing was required, thereby avoiding the associated costs. (*Cost Avoidance: \$641,631.*)
- Lower cost of outsourcing compared with previous platforms. (*Cost Savings: \$324,965.*)
- Web-based solution eliminated software purchases and allowed replacing on-site staff with remote MTs. This eliminated the need to hire temp agency MTs to cover vacationing staff and lowered overhead and recruitment costs. (*Cost Avoidance: \$42,535.*)

### The Bottom Line

By maximizing the productivity of its in-house MTs, by paying a lower rate for the outsourcing still needed, and by deploying a web-based enterprise-wide solution that is less expensive to operate than previous systems, *the eScription platform saved Maine Medical Center over \$1 million over a three-year period.*

## CASE STUDY #2: UNC Health Care

### Background

UNC Health Care provides comprehensive quaternary care to over half a million patients each year through its network of hospitals and clinics located throughout North Carolina. These include UNC Hospitals, a 708-bed facility that is one of the leading medical centers in the U.S., and the nationally ranked UNC School of Medicine.

### Challenge

In 2003, UNC was undergoing a major expansion effort. Transcription volumes were rising due to the acquisition of new clinics and services into its network as well as increased healthcare demand at existing facilities. UNC's overburdened manual transcription system was expensive and did not lend itself to the productivity and technology improvements required to support operational needs.

There was also pressure from administration to contain rising transcription costs, handle increased volume, and optimize and integrate the transcription system with existing Clinical Data Repository (CDR) and Electronic Health Records (EHR) applications.

On the physicians' side, senior medical staff demanded lower turnaround times so as to deliver better quality of care for patients. Also, because UNC is a teaching hospital, an easy-to-use background transcription system requiring little or no clinician training was essential to accommodate a relatively high annual turnover rate among graduating and incoming resident staff.

### Goal: Reduce Transcription Costs

UNC's HIM department had a mandate to reduce the cost of its transcription services while improving turnaround time and upgrading its technology. In 2003, 60% of UNC's transcription work was being outsourced to MTSOs while 40% was handled internally. According to James Walsh, Director of Application Development, Financial & Administrative Systems, "After a couple of months on the eScription platform, we were impressed with the clinical gains experienced with the eScription model. It soon became clear to us that UNC needed to take a closer look at the 40% transcription being done internally."

"With rising labor costs and with qualified and committed resources hard to find, totally outsourcing the transcription function while redeploying our internal MTs to MTSOs or to other roles within the organization made perfect business sense. The net effect was a streamlined HIM department, quantifiable reduction of operating costs, and improved quality of care realized through the adoption of cutting edge technology and decreased turnaround times."

### Results

Transcription outsourcing at UNC increased from 60% to 95% over a six-month period. Turnaround times were reduced from an average range of 17–24 hours on the old system to 4–5 hours on the eScription platform. Cost savings were realized immediately. Between 2003 and 2006, UNC experienced total cost savings of approximately \$3.5 million. These savings were calculated as follows:

- Average annual line count: *16.7 million lines*
- Estimated cost savings per line: *\$.07*
- Annual estimated cost savings: *16.7 million x \$.07 = \$1,169,000/year*

### **The Bottom Line**

UNC's goals in selecting a new transcription system were to lower costs, adopt advanced technology that would interface seamlessly with its existing CDR and EHR systems, and improve quality of care by decreasing transcription turnaround times. Moving the entire transcription function to an "eScripton model" made operational, financial, and clinical sense to UNC. By replacing its expensive manual transcription system with the eScripton solution, *UNC experienced \$3.5 million in cost savings over the first three years of deployment, far exceeding their original expectations.*

## **CASE STUDY #3: Carle Clinic**

### **Background**

One of the largest private physician groups in the U.S., Carle Clinic Association is comprised of more than 300 physicians practicing in more than 50 specialties and subspecialties. Through a network of ten branch clinics, a variety of outpatient services and residency programs, Carle Clinic physicians meet healthcare needs throughout east central Illinois. Carle Foundation Hospital is a 300-bed not-for-profit teaching hospital and the region's only Level I Trauma Center. Carle's Main Clinic and Carle Foundation Hospital are located in Urbana, Illinois.

### **Challenge**

In 2004, Carle was experiencing transcription volumes of around 28 million lines per year. It was anticipated that this number would grow to approximately 38 million lines per year with the implementation of the Clinic EHR and the additional goal of 100% provider dictation. According to CAO Mike Bukosky, "Carle needed an enterprise-wide transcription solution that would allow us to scale to an unprecedented level of rapid growth, without compromising quality or performance."

Additionally, costs needed to be controlled in the process. Labor costs were rising while financial pressures dictated that budgets be kept in check. The selected transcription platform would have to be economical as well as scalable.

### **Goal: Scaling to Growth**

Carle's HIM department had multiple goals in mind for selecting a new transcription system: lowering transcription costs; improving transcriptionist productivity; reducing reliance on outsourcing; and increasing in-house capacity without parallel increases in hiring.

All of these criteria would need to be met in order to scale to the expected level of growth over the coming years while keeping costs down.

### **Results**

Carle selected the eScripton platform as its transcription platform in order to meet these goals. By being more productive, in-house MTs would be able to handle more work and outsourcing would be reduced. For MTs not experienced with background speech recognition-based transcription systems, Carle offered training and financial incentives for those MTs to improve their skills and become more productive using the eScripton platform.

As the eScripton platform was implemented, productivity gains and the resulting cost savings were quickly realized. While transcription volumes increased from 28 million lines in 2004 to 47 million lines in 2008, transcriptionist staffing levels actually decreased moderately during that time.

Carle estimates its cost savings from 2004–2006 as follows:

- Additional in-house capacity due to increased productivity meant either not having to outsource additional lines (*Cost Avoidance: \$930,000*) or not having to hire additional staff (*Cost Avoidance: \$1,200,000*).
- Additional in-house capacity allowed elimination of some MT staff positions (*Cost Savings: \$157,000*).

### **The Bottom Line**

Carle had multiple goals in selecting a new transcription system: cutting costs; increasing productivity; reducing outsourcing; and maintaining flat staffing levels even as transcription volume increases. By selecting the eScription platform, *Carle Clinic saved over \$1 million in transcription costs over two years.*

## **YOUR BOTTOM LINE**

How can you evaluate your healthcare organization's transcription system to determine how to cut costs in this area? Here are some steps you might want to take to begin the process:

### **Evaluate your current transcription system**

- What challenges in medical transcription is your organization facing?
- If you use in-house MTs, what is the labor market like in your area?
- Are your MTs as productive as they can be?
- Do you have enough MTs on hand to handle the required volume? Are your backlog levels acceptable?
- Will your system scale to the growth of your organization?
- If you outsource, how pleased are you with the results in terms of quality, turnaround time, and cost?

### **Evaluate your current transcription costs**

- What kinds of pressures exist to cut transcription costs within your organization?
- Calculate the cost of hardware and software required for your present system.
- If you use in-house MTs, consider all costs including salaries, benefits, facilities overhead, temp sub fees, training costs, and recruitment costs.
- If you outsource, consider your outsourced volume and the current costs using your present transcription system.

## Evaluate the projected cost of Computer Aided Medical Transcription

- If you use in-house MTs, determine how much additional capacity they could handle at substantially increased productivity levels. As a benchmark, consider that eScription platform customers with in-house teams typically experience a 70% increase in capacity after one year. This means that the same team that could produce 10 million lines per year prior to using the eScription platform can handle 17 million lines with the same resources one year later.
- Determine whether you'll still need to outsource and, if so, what volume would be required.
- If you plan to outsource, compare the MTSO cost per line between traditional transcription on your old system, and editing documents on a new one.

After you complete your own assessment, Nuance would welcome the opportunity to help you evaluate the cost savings potential of computer aided medical transcription at your organization. As in the case studies presented, we expect that your organization will also be able to realize substantial cost savings, whether you currently use in-house MTs, outsourced MTs, or a combination of the two for your transcription needs.

Several years ago, the eScription team within Nuance establish a *Million Dollar Award*. This award is given to those organizations that have achieved a new level of "million dollar cost savings" through using the eScription platform, starting with \$1 million. As of May 2009, the 32 members of the Million Dollar Club have alone saved more than \$93 million in transcription. By choosing the eScription platform, your healthcare organization will be well positioned to enjoy similar levels of savings in medical transcription.

The experience speaks for itself™