Davies Recognition Program: Independent Primary Care Practices
North Fulton Family Medicine

Section A. Identifiers

Name and Title of Submitter: Dr. James R. Morrow

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Physicians in the Practice: Number____7____ Full Time Equivalents_____
Nurse Practitioners in the Practice: Number____1____ Full Time Equivalents_____
Physician Assistants in the Practice: Number____8____ Full Time Equivalents_____
Additional Staff: (list by staff category) Number____38____ Full Time Equivalents_____
16 Medical Assistants
2 x-ray technicians
2 RNs
2 office managers
1 business manager
1 administrator
4 business office employees
2 patient care coordinators (referral specialists; "patient concierges"
8 front office employees

8. Provide detailed information regarding any commercial/employment agreements with the vendor/s of EHR hardware/software. If no such arrangements/agreements exist please indicate "No commercial/employment relationships with any vendor of our EHR system."

No commercial/employment relationships with any vendor of our EHR system.

9. Annual Number of Patient Encounters:
51,000

10. Please list the names of the members of the EHR Implementation Team (who will all be considered authors of the application):

Dr. James R. Morrow
Dr. Thomas E. Bat

Section B. Application

The Organization

North Fulton Family Medicine comprises two sites located in Alpharetta and Cumming, Georgia. Today, the practice handles 51,000 patient encounters annually, primarily serving patients between the ages of 15 and 60. Of North Fulton's patients, roughly 15 percent are insured through Medicare, 75 percent through managed care, and the remaining 10 percent are self-insured or covered under indemnity plans. The Alpharetta office, which tends to handle more acute-care cases, serves patients through a team of five doctors and five physician's assistants, and 10 medical assistants. There are four front office employees and 30 exam rooms. The Cumming office includes two physicians and three physician's assistants, assisted by six medical assistants and four front office employees. The Cumming site has 25 exam rooms. The practice provides such services as complete physical examinations, onsite X-rays, cardiac exercise stress testing, flexible sigmoidoscopy, pulmonary function testing, school and sports physicals, immunization updates and worker's compensation examinations. The majority of North Fulton's patients are well educated and technologically savvy.

Management

Business Objectives

Prior to implementing its EMR solution, North Fulton had four physicians treating 13,000 patients. The practice was spending more than $8,000 per month in transcription fees and was facing rapid regional expansion north of Atlanta. Each day, the practice was spending 625 minutes on chart handling, 330 minutes on missing chart searches, 705 minutes on transcription processing, 570 minutes on lab result handling, and 180 minutes on referral letters.

The practice identified numerous opportunities to recoup the time and money spent on these administrative functions and to improve the quality of patient care while growing the practice. In particular, the practice sought to save cost spent on additional FTEs, supplies and chart storage space. Time spent waiting for labs, reporting lab results and managing patient charts also required valuable minutes in the day and was identified as an area for improvement. The practice also knew it lost reimbursements due to miscoded procedures and charges. More importantly, the doctors' consistent practice goal had been to accommodate the maximum number of same-day encounters per patient requests. Ultimately, the physicians felt an EMR along with workflow improvements and upgraded telephone systems were the best avenues for working toward their overall growth strategy while simultaneously reducing overhead and improve patient care.

Project Organization

Dr. Thomas E. Bat and Dr. James R. Morrow led the improvement effort at North Fulton. Together, they researched solutions and worked to get buy-in from other practice physicians and staff. The implementation plan and training was executed by Dr. Bat and Dr. Morrow in cooperation with the EMR's vendor implementation specialists.

Decision Process

Five years ago, North Fulton recognized the trend of surging regional expansion around them and knew there was an incredible opportunity for growth if they prepared appropriately. However, with high employee turnover and excessive overhead costs, they knew change was in order if they wanted to increase patient volume accordingly.

In 1997, North Fulton's service area was on the cusp of a population boom with new highways beginning to spill out of Atlanta, feeding commercial and residential development. The practice leader, Dr. Thomas Bat, realized it was better to stay ahead of the curve and be proactive with regard to the impending growth. Together, the practice identified the need to add a satellite office to become accessible geographically to more patients, and to have enough space both to accommodate new patients and to maximize same day encounters when the numbers increased.

However, with four physicians and more than 13,000 patients already, the decision to add a location meant more staff would be required, and the group did not want to increase its ratio of support staff to care providers. The team also recognized the increased administrative burden this addition would create in managing patient charts, including the risk of inconsistent communication and information sharing between sites.

The first task at hand was to expand the practice without risking exponential cost increases. However, with annual transcription costs already at $103,000, how could they achieve growth while proportionately reducing overhead expenses?

Driven by the necessity of bridging locations, the strategic desire to lay groundwork for rapid expansion, and the desire for technological advancement, North Fulton decided to begin a search for electronic medical record technology.

After a seven-month search and many site visits, an EMR system was chosen because of its logical design-flow that guides caregivers from one step to the next throughout each encounter, and its ability to be customized to the practice's needs. Additionally, the Intranet e-mail capability was crucial to the EMR's selection since they needed to connect the new Cumming office, and the integrated scanning module was an attractive feature since it didn't need to be patched in separately. The EMR solution would dictate the necessary workflow changes, and a new phone operated lab response system was expected to further reduce administrative pressure on the practice. North Fulton was confident it had found a solution that would take them into the future and the inevitable growth that would come.

Implementation

EHR System
North Fulton selected A[4] Heath Systems' HealthMatics EMR Electronic Medical Record and later interfaced it with HealthMatics Ntierprise Practice Management System. To further expand its system's capabilities, the practice also utilizes TeleVox Lab Calls to report patient lab results, HealthMatics Assure to enhance patient record safety, and recently implemented HealthMatics Access, promoting e-communication between patients and the practice.

A[4]'s HealthMatics EMR has driven greater efficiency at North Fulton and has better equipped the practice to provide a higher quality of care to patients. At North Fulton, each exam room is equipped with a desktop computer where care providers are able to access patient charts and enter information at the patient's bedside. During each visit, patients see and experience firsthand the benefits a forward-thinking practice can offer thanks in part to technology.

The practice has taken advantage of HealthMatics EMR's customizable features, which allow the practice to design workflow based on its preferences. The EMR organizes communication and chart information within the practice and with outside practitioners. It manages orders, procedures, prescriptions, lab results and other data previously collated into patient charts by hand onto paper.

The solution enables practices to maintain problem and medication lists; generate preventative care reminders; receive medication interaction, allergy or lab abnormality alerts; and harvest patient information to generate population-based reports. Faxes can be sent directly from the EMR and inbound faxes and scanned documents are easily saved as digital files in patient charts. These functions not only save time and cost, but more importantly allow the physicians to spot and resolve immediate or potential problems.

Prescriptions, referrals and orders are generated automatically, again reducing hassles for the patient. The system makes data easier to manage and allows medical professionals to track outcomes and better control patient data. Customizable referrals, back-to-work and back-to-school letters are generated from chart notes and patient education sheets can be customized. Each of these documents can be printed importantly, the EMR improves patient safety by allowing doctors instantly to check potential drug interactions and receive lab results.

Physicians are able to log on from home via secure high-speed Internet for decision support while on-call as well as to manage the practice while out of the office. The EMR has increased the completeness of patient charts, due in part to the setting of mandatory fields, and facilitates more complete documentation by the physician. By using HealthMatics EMR, North Fulton has eliminated all transcription costs and processes, and has prevented lost or misplaced charts.

Microsoft Outlook integration facilitates better communication within the practice and between the practice, hospitals and specialists via secure two-way sharing of patient chart information; items in the chart can be sent to hospitals, specialists or referring doctors and received items can be added into the chart as attachments. The e-mail communication system also enables instantaneous sharing of chart information throughout the practice and speeds prescription refills.

The entire system is password protected and programmed for automatic time-outs, increasing security of information, which is so critical, particularly in today's HIPAA environment. Data access is restricted depending on need within the practice. For example, the front office staff only is able to access demographic information pertinent to scheduling and registration. The integrated Oracle® database security features allow practices to restrict unauthorized access with password login requirements, audit trails and access limitations.

Additionally, North Fulton utilizes HealthMatics Assure disaster recovery, enabling back-up of all information on A4 ASP remote servers, facilitating security of patient records, and allowing the practice to meet 2005 HIPAA guidelines well ahead of schedule. All data is protected and easily recovered. In the event of system failure, data runs through a remote, secure server and is populated back into the practice's EMR upon recovery. Taking a paper system electronic brings with it some trepidation over information loss, but this element of the EMR solution has helped everyone at the practice sleep easily knowing patients' records are secure and protected.

The EMR interfaces with all major lab information and messaging systems as well as Midmark Diagnostics. North Fulton originally utilized an interface with TeleVox LabCalls to report patient lab results. Recently, the practice implemented HealthMatics Access, which enables patients to log on via a secure Web portal to request appointments and refills, update demographic and insurance information as well as retrieve lab results. Access also facilitates patient-provider e-mail communication, which can be logged directly into the patient chart. Additionally, North Fulton's EMR integrates ECG data directly into the patient chart using a Digital ECG offered by Midmark Diagnostics that converts PCs into fully functional, 12-lead resting ECGs with analysis.

The EMR smoothly interfaces with practice management systems implemented by North Fulton for seamless bi-directional communication of billing information. HEALTHMATICS NTIERPRISE Practice Management system is a Windows-based system for administrative and financial process management based on the most advanced architecture, operating systems and SQL databases available.

Ntierprise provides advanced physician practice management functionality for group medical practices, multi-specialty clinics, MSOs, IDNs, and Service Bureau organizations. The practice management system is comprehensive and encompasses all aspects of medical practice management including: patient registration patient scheduling, recall monitoring, and referral tracking; patient account and co-pay management; insurance profiling, billing and reimbursement tracking; accounts receivable reporting and management, including a state-of-the-art rules-based collections system; comprehensive and conclusive practice management reporting system; prescription tracking, chart tracking, patient notes and document handling systems.

Ntierprise's core practice management system functionality is extended through the integration of powerful complementary technologies that provide pervasive access to information and office productivity tools from within the practice management system suite, such as seamless integration of Microsoft Word for automated document production; an embedded browser for unlimited access to Internet resources directly within Ntierprise; and Ntierprise's Information Broker which enables "real-time" interfaces with

complementary applications/devices, including EMR, PDAs, document scanning, and payer portals for electronic eligibility, claim status and referrals.

Ntierprise improves the productivity of administrative staff, simplifies patient record keeping, streamlines billing, improves cash flow, increases the practice's capability to expand, and more. Practices experience fewer claim rejections and denials, increased receipts and collections, operational efficiencies and bottom-line return on investment. Users also can integrate e-mail, Internet resources and office automation tools, such as Microsoft Office, to further streamline workflow and enhance provider and employee productivity.

The end result is North Fulton physicians are able to concentrate on the patient visit, record notes, order tests and labs, as well as review medical history all at the point of care. Providers are able to see more patients during the day and are better able to stay on schedule – eliminating appointment scheduling hassles and long wait times. The EMR implementation, workflow improvements and advanced telephone lab system has made the practice more productive and cost efficient from a business standpoint and – most critically – significantly improved the quality of patient care.

Core Functions

1. History and Physical
HealthMatics® EMR uses the SOAP format to incorporate complete subjective and objective data into the patient chart, including vitals, chief complaint/history and present illness, review of systems, physical exam, and assessment and plan. The system supports the pre-exam "work up" by ensuring adequate encounter preparation and subjective data documentation for the doctor/patient visit. Nurses or other clinicians can capture chief complaint, history and vital signs for physician's access, and pull forward relevant data from previous visits.

With instant access to medical history information, patients can securely enter their medical history and reason for visit securely from the Web or waiting room. Patients provide the reason for the visit and complete a customized template questionnaire designed by North Fulton. The data then is fed directly into the EMR, enabling physicians at North Fulton to have 10 percent of documentation completed before the patient even enters the exam room. Physicians then review and confirm information.

2. Visit Notes
The EMR offers several tools to map the system to a practice's patterns and to meet regulatory guidelines. North Fulton can customize "short lists" and templates for protocols up-front. For example, the solution allows practices to pre-establish diagnosis and procedure codes that will be accepted by insurance companies. A Problem Oriented Case Management-Patient Face Sheet screen organizes longitudinal summaries with detailed drill-down capability on all patient problems, history, encounters, medications, orders and procedures. Chart by exception enables providers to apply the last encounter's information to the current visit as a template and proceed to chart by exception. Through the solution, the practice also can customize a variety of 'chart by exception' templates to match individual physician methodologies, including tracking multiple reasons for a visit, reviewing systems and medical history as well as reviewing physical exam, assessment and plan

Standardized medical terminology simplifies information capture and allows analysis of data gathered by the entire practice. With the EMR, North Fulton physicians complete SOAP notes while in the exam room with the patient by simply pointing and clicking through the exam. Since HealthMatics EMR is knowledge-manager driven, much like templates, when you check a chief complaint, it then drives the process. However, unlike most template driven systems, North Fulton physicians are not stuck in that process and are instead able to jump back and forth. For example, if a patient has another complaint during the physical exam, the physician easily can jump back to the chief complaint section, document it and then resume where he or she left off. While documenting the entire progress note, the system also creates a quick note of the complaint, the assessment, the plan and the medications prescribed. It stores these in the electronic record so it can be accessed easily.

3. Problem List
The user can choose from a master list of complaints or have their own set up to pick from each time. These are case sensitive and can be accessed simply by clicking on the first letter of the complaint that the user wants to access. Webster's Medical Dictionary is built into the EMR. The problem list can be modified however the user(s) chooses. If the clinician is ordering during the encounter, the results will automatically be linked with that complaint/note.

4. Medications
North Fulton has created medication lists for each doctor and for the entire practice, making medication selection a simple point-and-click procedure. Electronic prescriptions can be managed via fax and e-mail directly from the chart, greatly reducing chart handling and refill turn-around times. Physicians are able to track prescription refill frequency. Medication interaction and allergy alerts prompt physicians to consider the effects of certain drug combinations, increasing patient safety. Drawing from the incorporated Medispan® drug database, the EMR also sends critical warnings. For example, if a patient is on Azmacort, if a physician orders Inderal, the EMR alerts the physician to the drug interaction. SureScripts® provides an option to electronically manage new prescriptions, renewal requests and queries.

5. Radiology Reports
Radiology reports can be input directly into the EMR and are simplified by enabling North Fulton physicians to simply review them and mark them as accepted.

6. Reports and correspondence from outside the practice
A4 uses Cognos reporting, which enables reporting on virtually anything that is created within the system. The data can be exported to Microsoft Excel and can be put into a phone list or a mail merge. A4 provides a powerful reporting tool for extracting, aggregating and analyzing information. Since the structured database stores information in searchable and reusable pieces, the practice can choose a variety of options to unlock the valuable storehouse of information in their patient records. Scanning hard copies of information from outside the practice has improved communications between practices tremendously. Though not much information is e-mailed at this point, the use of this functionality is likely to grow since North Fulton can scan a page in less than a minute.

Practice-based analysis allows physicians to:
➢ Identify at-risk patient populations (i.e. run a report to find all patients on a medication recalled by the FDA)
➢ Use the database for disease management, clinical trials and tracking patients patterns
➢ Compare patients with similar conditions and treatment plans
➢ Support routine health maintenance with automated reminders
➢ Evaluate practice compliance with HEDIS requirement

Microsoft® Outlook allows secure e-mail transmission and reception of patient information, which is incorporated as inbound chart items into a full-screen view of all chart attachments, also accessible via an encounter window within the face sheet. Medical device interfaces incorporate ancillary medical data into charts. For example, an alliance with Midmark®, allows the incorporation of EKG data into the EMR. Scanned documents may be received and saved as chart attachments. Faxed documents may be sent and received.

7. Lab Results
Bi-directional communication enables labs to be ordered from the point-of-care and the results to be delivered to providers' desktops where an alert signals abnormal results. This process reduces the need for human intervention and decreases incidents of lost or misdirected samples. Practices can either handle orders in-house or send them via interface for management by external labs. Reviewed and approved results are automatically integrated into the patient chart.

The upgraded telephone system created an automated lab system (LabCalls) where patients can call in to get their results, an appointment reminder (HouseCalls) and the addition of a triage nurse to streamline

patient communication, further freeing nurse and administrative time. Prior to telephone upgrade, North Fulton handled approximately 38,000 calls per month. Now, North Fulton has reduced its call load by 12,000, freeing nurse, physician and staff time.

Interface to billing

The complementary integration of the electronic medical record and practice management system results with patient encounter information captured in HEALTHMATICS EMR passing seamlessly through an interface to HEALTHMATICS NTIERPRISE.

The EMR manages documentation for coding and charge capture at levels appropriate to the service delivered. It assigns appropriate E&M codes based on the CPT coding structure, automatically scores claims using rules based on HCFA guidelines, and allows users to assign appropriate CPT coding modifiers.

The practice management system is comprehensive and encompasses all aspects of medical practice management, including patient registration; patient scheduling, recall monitoring, and referral tracking; patient account and co-pay management; insurance profiling, billing and reimbursement tracking; accounts receivable reporting and management, including a state-of-the-art rules-based collections system; comprehensive and conclusive practice management reporting system; prescription tracking, chart tracking, patient notes and document handling systems.

The combined solution and robust drill-down reporting enables maximum control over the practice.

Technical infrastructure

The practice's A^4 HEALTHMATICS NTIERPRISE Practice Management System and HEALTHMATICS EMR Electronic Medical Record interface easily with the offices' other technologies. Bi-directional interfaces seamlessly integrate the practice management system and HEALTHMATICS EMR with the practice's Quest lab information system and TeleVox LabCalls® lab messaging system.   HEALTHMATICS EMR also integrates the practice's ECG data directly into patient charts using a Digital ECG offered by Midmark Diagnostics. Interfaces also are built between HealthMatics Assure Disaster Recovery and HealthMatics Access.

North Fulton is very active in managing the technology. North Fulton recently brought on staff an information technology specialist to maintain servers and input updates. The practice manages all updates and is a thought leader in the field of healthcare IT, consistently adopting new technologies well before their peers. Additionally, Dr. Morrow serves on A4's physician advisory board, recommending updates and technological changes.

System Implementation

North Fulton is a true leader in the field of medical information technology, implementing the EMR Dec. 17, 1998. The process involved significant on- and off-site work to establish required clinical customizations, link the two practice sites, and train key users and the entire employee population. Off-site training helped develop templates and procedures that supported the practice's *modus operandi.* Local training consisted of setting up a classroom, dividing the staff into sections and split sessions for hands-on time. Each member received approximately eight hours of training from A^4's instructors.

The implementation itself was easy for the practice, due in large part to physician leadership and a firm commitment to go full force – rather than tiptoe – into the conversion. Initially, it took two to three patient visits to get the electronic chart fully populated with patient information, but the practice did not lose productivity. North Fulton was able immediately to treat 15 scheduled patients per provider each day, as well as 70 to 75 walk-ins or same day appointments.

Since EMR implementation, the practice has expanded its use of the system as well as recently implementing HEALTHMATICS NTIERPRISE Practice Management System in addition to other EMR solutions such as a Quest lab information system, TeleVox LabCalls, and a Digital ECG by Midmark Diagnostics.

<u>Current State</u>
Today, seven physicians, one nurse practitioner, eight physician assistants, and 20 nursing assistants use the EMR solutions to handle 51,000 patient encounters annually. The solutions allow the physicians and staff to organize communication and chart information within the practice and with outside practitioners, managing orders, procedures, prescriptions, lab results and other data. Patient chart information can be sent to hospitals, specialists or referring doctors and received items can be added into the chart as attachments. The solutions allow the practice to maintain problem and medication lists, generate preventative care reminders, receive medication interaction, allergy or lab abnormality alerts, and harvest patient information to generate population-based reports.

The practice also utilizes the solutions' advanced claims management tools to identify and clean up invalid claims as well as its integrated managed care referral tracking and analysis, co-pay presentation and tracking, billing module, real time registration and clean claims scrubbing, e-mail and e-fax of "instant letters," statement and claims processing management, patient scheduling, demographics, and billing information, embedded Internet access, and conclusive reporting

Value

<u>Success in Meeting Objectives</u>
The benefits of the system are well documented. **The practice now has instant access to patient records, notes are created at the time of encounter rather than after the visit, paperwork has been significantly decreased, and the elimination of dictation and transcription costs has resulted in significant savings. The EMR has enabled the practice to become more efficient and expand to meet demand.** In fact, the physicians and staff refer to the practice as "the house that the EMR built."

As planned, automation through HEALTHMATICS EMR has allowed North Fulton simultaneously to recoup time and cost, and to improve quality of care while growing the practice. After implementation, the practice size literally exploded, growing from four to 14 providers and from 15 to 55 exam rooms in five short years. The practice serves an annual patient volume of more than 50,000, which is a more than 280 percent increase over its 13,000 prior to implementation. In 1998, two staff members worked to process 100 patients per day. Today, with the same amount of staff, the practice is able to serve more than 330 patients per day. The pace of the practice is maintainable because the doctors and administrators are able to stay connected all the time, even when they are not in the office. The doctor on call has access to patient records online from home, resulting in safer, more accurate solutions to patients' problems.

Patients are happy because they receive more attention and quality of care has improved due to many of the reporting and reminder functions of the technology. A paper encounter form is the only hard-copy document the practice still uses. From there, the electronic system notifies nurses among other things to bring patients to their exam rooms and triage, to complete a medical history, and to process refills when needed.

The largest revenue improvement stemmed directly from the implementation of the EMR. Not only has the practice saved significant time – which equals money – tracking down patient charts and generating referral letters, but the recouped transcription costs have significantly impacted the bottom line to the tune of approximately $775,000 since implementation. They also have freed up office space previously used for chart storage to be utilized for practice growth, and patient capacity has increased due to a major reorganization into care teams to better expedite the flow of patients.

The practice drastically has decreased the amount of time it spends on administrative functions. For example, on a daily basis, the practice has reduced time spent on chart handling from 625 minutes to zero, missing chart searches from 330 minutes to zero, transcription processing from 705 minutes to zero, and lab result handling from 570 minutes to zero. As a result of implementing HEALTHMATICS EMR, in the first year alone, the practice eliminated $9,337 per day and $253,978 per year in the areas of chart pulls, new patient chart generation, missing chart searches, transcription, lab result handling, referral letters and medical chart supplies. Thereafter, the practice has saved $275,000 per year on average.

The practice upgraded its telephone system in response to the increased need, at one time receiving upwards of 38,000 calls per month. The upgrade included an automated lab system – LabCalls – where patients can call in to get their results, an appointment reminder – HouseCalls – and the addition of a triage nurse to streamline patient communication, further freeing nurse and administrative time. After system implementation, the practice reduced the load on their phone system by 12,000 calls.

Scheduling greatly improved with the addition of early morning walk-in clinics at both locations. Around the same time, the practice restructured to reserve more than one-third of the schedule for same-day appointments to be flexible enough to enable patients to see a care provider while they still are sick. With the new technologies, the office runs much smoother and quieter, which ill patients greatly appreciate. Nurses are not constantly faced with locating charts, and patient printouts are directed to the nurses' station when patients arrive. It is so quiet the overhead music is audible. A key indicator of success, patient satisfaction, which is measured by physician and staff feedback as well as a Web survey, has reflected the positive changes.

The majority of North Fulton's patients, many of whom work for technology companies like MCI, Nortel and Principal Insurance, can see the difference the minute they walk in the door. The receptionist is not behind a sliding glass window. Instead the technology allows her to be behind a desk out in the reception area with only a flat screen monitor.

Since the majority of North Fulton's patients are technologically savvy, they are excited to be able to communicate with the practice online from work or home. With HealthMatics Access, they have the option to make appointments as well as refill and referral requests on the practice's Web site, which automatically is fed into the practice management and EMR systems. In fact, more than 400 patients have signed up for the service in only four short months. Feedback from patient users who no longer have to play phone tag with the physician for lab results or wait for extended periods of time on hold to make an appointment or refill request has been exceedingly positive.

The reduced paperwork and streamlined workflow allows nurses and doctors to leave at 5:30 p.m. Previously, it was commonplace for physicians and support staff to be in the office until 6:00 or 6:30 p.m. finishing paperwork and returning calls for prescription refills, which drive primary care practice. What used to take up to five minutes now takes only seconds. The office staff agrees the improved systems are beneficial and have improved quality of work life, and – not surprisingly – employee turnover has decreased significantly.

Part of this retention success is credited to better employee communication. The practice no longer must draft and make 60 copies of memos regarding hours, changes, etc., and they no longer need an employee communication board, both of which were relatively ineffective. Now, they simply draft an e-mail and distribute it internally. In addition, they no longer have to solicit or advertise open positions. Generally, resumes trickle in and are referenced when a need is realized, which is a testament to the strong practice stability.

The new technologies and office procedures have made the entire patient care process much smoother, and ultimately, a win-win-win decision for all involved. As a business, the practice has decreased costs and enabled its expansion through its EMR solutions, and the practice ultimately has improved the quality of patient care and dramatically increased its capacity for patients, better serving the growing region.

Value Highlights:
- Two front office staff processed 100 patients per day in 1998, and now process more than 330 patients per day
- Recouped transcription costs since implementation total approximately $775,000
- Time on administrative functions drastically decreased:
    - Chart handling time per day reduced from 625 minutes to zero
    - Missing chart searches time per day reduced from 330 minutes to zero

- - Transcription processing time per day reduced from 705 minutes to zero
  - Lab result handling time per day reduced from 570 minutes to zero
- With EMR and LabCalls, the practice has reduced the load on their overtaxed phone system by nearly 32%
- Referral letters are now automatically generated within the EMR, populating the letter template with patient information and specialist's contact information.
- First year results revealed the practice's growth strategy resulted in an estimated savings of $4,594 per day or $1,249,568 annually
- Ongoing annual savings of $275,000 on average

Costs and Benefits Offsetting Costs

Cost Element	Initial	Ongoing
EHR Software	$112,000	$26,000/year
Hardware	$18,000	N/A
Installation	Included in "implementation support" line item below	Included in "implementation support" line item below
Implementation Support	$37,000	N/A
Training	Included in "implementation support" line item below	Included in "implementation support" line item below
Coverage for physicians during training or lost revenue (if any)	N/A	N/A
Interfaces or EDI connections	Included in "EHR software" line item above	Included in "EHR software" line item above
Other	N/A	N/A

Lessons Learned

The primary lesson learned, according to Dr. Morrow, is the sooner you implement an EMR system, the better off you will be. Once you implement a system you'll never want to go back to paper, but a key piece of the puzzle is to get the buy-in from all of the physicians from the very beginning. Dr. Morrow is a strong believer in being proactive with technology solutions instead of reactive. Continuously identifying tools and solutions that can help grow the practice will make that growth much less painful and less expensive.

It also is critical to look to the future. Consider your expected growth and determine what solution will best fit your current needs as well as those you see on the horizon. The EMR vendor should be a forward-thinking partner, and one with sufficiently robust products and support services to enable the practice to achieve its goals. In North Fulton's case, the time they spent researching EMRs and going on site visits was invaluable in selecting a vendor we felt confident would – and continues to – help meet practice business and patient care goals through innovative solutions.