

EMR ADVISOR™

The monthly guide to maximizing the return on your investment in electronic medical records and computerized physician order entry systems

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First year savings total \$1.2M

EMR supports rapid practice growth, yields bottom-line results

"Access Your Data." These words, which appear on the website of North Fulton Family Medicine (NFFM), of Alpharetta, GA, are more than just an invitation for patients to access their charts -- they also prove the practice's reputation as a trailblazer in health care technology. NFFM's patient web portal (www.nffm.md) gives patients "the ability to access lab results, request prescription refills, verify dates of visits, and view diagnoses given," says **James R. Morrow, Jr., MD**, one of eight physicians on staff at the three-office family practice. "They can send secure messages to anyone in the practice, and these messages go directly into the EMR."

Winner of the HIMSS 2004 Davies Primary Care Award and recipient of the Physician Practice 2004 Practice of the Year Runner-up Award, NFFM is a leader in EMR use. The practice was also recognized in 2002 by the Medical Group Management Association as an Outstanding Medical Practice. **Thomas E. Bat, MD**, president of the practice, and Morrow have made it part of their mission to persuade other physicians of the benefits of EMRs in general, and the benefits gained by NFFM in particular.

Some of the benefits the practice has realized from their EMR system include:

- Recouped transcription costs totaling about \$775,000;
- Daily chart handling time reduced from 625 minutes to zero;
- Lab result handling time per day reduced from 570 minutes to zero;
- An estimated savings of \$4,594 per day, or \$1,249,568 annually, for the first year;
- An ongoing annual savings of \$275,000.

The proof is in the report

"We didn't go into this to win awards," says Bat, "but after a couple of years, we realized our

patient care was better." The EMR gives Bat and the other NFFM care providers the ability to track patient outcomes, which has confirmed that their patients are doing better overall than they were prior to the EMR.

For example, every few months, Bat queries the data to generate a list of patients with a diagnosis of [diabetes] who have not had a hemoglobin A1c ordered within a particular date range. "I can get a list of all these patients within minutes or seconds," says Bat, who then tracks down whether these people are still patients at the practice and, if so, why they are not getting a hemoglobin A1c.

In addition, having the computer in the exam room ensures that the care providers are thoroughly knowledgeable about a patient's diagnosis and history. "When I go in to see a patient, the nurse has already used the EMR to generate a graph of the patient's glucose and LDLs," says Bat, who then shares these graphs with his patients. He even encourages his patients to post these graphs on their refrigerators, hoping the graphs will affect their dietary choices.

"I don't know if the chart really inspires the patient over the next three months, but it might," says Bat. In any case, the practice has determined that their overall hemoglobin A1c percentages have decreased significantly since they have implemented their EMR. Bat attributes this improvement partly to the increased face time the physicians spend with their patients -- time they used to spend writing prescriptions or dictating -- as well as the standardization of care that has also been a result of the EMR.

"Some docs think it happens the other way," says Bat, "that they're spending more time on the computer entering their SOAP notes than with their patient. But for repeat patients, it actually takes no more than two to

three [clicks of the] mouse to enter this information -- you click on the screen and the EMR fills in the blanks for you."

Finances push practice toward EMR

The physicians at NFFM began moving toward an EMR in the spring of 1998. Reimbursements were dropping and costs were skyrocketing. "We were spending \$8,000 a month on transcriptions, way more than anyone thought we should be," says Morrow. "We needed something that would let us spend less money and also give us time to see more patients."

After some research, Bat and Morrow decided that purchasing and implementing an EMR was the solution. The practice began a search and quickly narrowed their EMR selection down to Healthmatics, which was purchased by A4 Health Systems soon after. They signed the contract during the last week in September 1998, then quickly, purchased hardware to accommodate their goal to become paperless.

The practice set up the exam rooms with Dell desktops and monitors, electing not to go wireless because wireless in 1998 was not practical. The practice did not lose its momentum even after learning that Glaxo Wellcome, the original vendor, would no longer support Healthmatics. Soon after this announcement, A4 Health Systems acquired the EMR, and has continued to support and develop it since.

Four of the care providers, including Bat, Morrow, the head nurse, and the office manager, attended a four-day intensive "train-the-trainer" course at A4's headquarters in Raleigh, NC. "As the lead team, we were trained to support and supplement the A4 trainer who spent a week in our office right before implementation," explains Morrow. "We set up a conference room with four to five computers, and we

held two- to two-and-a-half-hour training sessions for everyone."

Electronic superbill is a key ingredient

In addition, in the days before go-live, Bat created an electronic version of the superbill, which Morrow says is a critical component to the success of their EMR. At the same time, Morrow created four or five physical exam templates to get the practice started.

On Dec. 17, 1998, the night before go-live, the practice conducted several "dress rehearsals," staging dummy patient encounters that started in the waiting room and ended after an exam. "We spent many hours that night getting ready," says Morrow. "Our plan was to go from paper to paperless overnight."

On Dec. 18, the practice saw 110 patients -- a full patient load -- and never created a paper chart

Figure 1: Transcription Labor & Cost Reduction

Pre-HEALTHMATICS EMR Action	Responsibility	Volume per Day	Time Per Day in Minutes
Chart Transcriptions Dictated Per Day	Physician	100	N/A
Average Lines of Chart per Dictation	Physician	20 lines per dictation	N/A
Transcription of Dictation	Transcriptionist	2000 lines @ \$.10 per line	400
Delivery to Providers for Review	File Clerk	100	5
Attaching Text to Chart	File Clerk	100	300
North Fulton transcription process minutes per day pre-HEALTHMATICS EMR			705
North Fulton transcription process minutes per day with HEALTHMATICS EMR			0
Cost savings @ approximately \$55K annual per each of 2 transcriptionists			\$110,000
RESULTS: North Fulton Family Practice has eliminated two full-time transcriptionists. Transcriptionist contract payments amounted to approximately \$55,000 per year each, reflecting a cumulative savings of approximately \$110,000 per year.			
Source: A4 Health Systems Case Study: North Fulton Family Medicine: The First Year.			

Figure 2

CHART HANDLING LABOR & COST REDUCTION			
Pre-HEALTHMATICS EMR Action	Responsibility	Volume per Day	Time/Cost Expenditure
Chart Request Calls Per Day	Phone Receptionist	100	N/A
Written Chart Request (Required)	Phone Receptionist	100	300
Batched Chart Request Delivery	Phone Receptionist	5	25
Batched Chart Retrieval	Nurse	5	25
Batched Chart Pick-Up and Returns	Phone Receptionist	15	75
Chart Filing	File Clerk	100+	200
North Fulton chart handling minutes per day pre-HEALTHMATICS EMR			625
North Fulton chart handling minutes per day with HEALTHMATICS EMR			25
Total Time Savings			600 minutes (10 hours per day)
Total Cost Savings @ \$11 per hour for file clerk & receptionist⁷			\$110 per day / \$29,920 per year
Pre-HEALTHMATICS EMR Action	Responsibility	Volume per Day	Time/Cost Expenditure
New Patients Charting	Medical Records Clerk	19 ⁸	190 minutes
Total Cost Savings @ \$11 per hour for medical clerk wages			\$34.83 per day \$9,474 per year
Pre-HEALTHMATICS EMR Missing Chart Search		Time/Cost Expenditure	
North Fulton missing chart search minutes per day pre-HEALTHMATICS EMR		330	
North Fulton missing chart search per day with HEALTHMATICS EMR		0	
Total Time Savings		330 minutes (5.5 hours per day)	
Total Cost Savings @ \$11 per hour for file clerk & receptionist⁷		\$60.50 per day / \$16,456 per year	
RESULTS: North Fulton Family Practice has eliminated three out of four full-time file clerks. Since each clerk had earned \$21,000 per year salary (without benefits calculation) this reflects a savings of \$63,000 + benefits per year.			
Source: A4 Health Systems Case Study: North Fulton Family Medicine: The First Year.			

again. Although initially some people worked after hours and during lunch to make sure all the patient notes were entered in the system, the practice never cut its patient load. "We as doctors were intent on succeeding, and we didn't make it an option," says Morrow. "It did not slow us down. People are so afraid that they will have to cut out patients when they get an EMR, but that is not necessary if -- and this is a big if -- they have the proper motivation, proper training, and proper software."

Typing skills aren't required

Some of the care providers in the practice were anxious about their success on the EMR before go-live. "They would say, 'I can't type,' or something along those lines," says Morrow. "But the truth is, very few of us can type, and we all adjusted."

Bat says he had been working to build up enthusiasm about the EMR for a couple of years before the practice actually purchased theirs. "We had sent different doctors out on site visits, trying to put everybody's finger in the pot," he says. "I was able to appease people by making them a part of the project, which helped somewhat when we got going. At the same time, as a leader, I told them that they had to undergo a minimal level of training."

"By go-live, we only had one or two rebellious people. One of these was a physician," says Bat.

"The gentleman typed a note and slipped it under the door and we never saw him again.

"He was a new physician, struggling with medicine, and now we were giving him a lot of demands. We were all busy, but we felt that we could not compromise on this. It was as important as anything we do."

Growth came with EMR efficiencies

When NFFM went live with its EMR, it was a two-office practice with four physicians -- three in one location and one in another -- seeing about 100 people a day. Today, the practice has eight physicians and eight physician assistants in three locations, and they see 380-400 patients a day.

"I can say that we've been able to grow and succeed financially because of the efficiencies that the EMR has provided," says Morrow.

Bat points out that because primary care has a small margin to work within, the practice would have failed if it had not achieved a return on investment quickly. "We've had increased efficiency, lowered staffing costs, decreased paper costs, and decreased transcription costs," he says. "Our overall efficiency went up so much we increased the number of patients 30% in one year while we decreased the size of our staff."

Figures 1-3 show the ROI for the first year in two areas, chart handling and transcription costs.

Don't hesitate

Both Bat and Morrow have advice for other family practices who are thinking about implementing an EMR.

"My advice is, don't hesitate to do this," says Morrow. "You are going to install an EMR in the future. The sooner you do it, the sooner you start saving money and providing a lot better quality healthcare."

"Doctors are the worst. They fight changes," Bat says. "However, now I just can't imagine doing this any other way."

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