

North Fulton Family Medicine:

A REAL LIFE RATIONALE
FOR THE PHYSICIAN
PRACTICE

The First Year

An Electronic Medical Record [EMR] is being planned as a means of improving patient information management in the majority of physician practices. Recent studies indicate that physicians are motivated by the EMR's potential to enhance business performance, improve clinical quality and manage practice growth.¹ Many practices, such as North Fulton Family Medicine in Alpharetta, Georgia, have been recognizing returns on their EMR investments for several years.

The following study summarizes North Fulton's first year post-implementation of HEALTHMATICS® EMR. In this year, 1999-2000, the practice established the EMR as part of a growth strategy to reduce overhead and improve production that continues today. Pre-implementation the group consisted of four physicians treating 21,000 patients, and a staff ratio of 3.5:1. Since this time, however, they have almost tripled patient volume and they have reduced per patient costs by more than ten percent. The practice anticipates close to 60,000 patients this year and there are eleven providers, including seven physicians, and a 2.8:1 ratio of non-clinical to clinical staff that is well below the national practice average.

PROFILE: NORTH FULTON FAMILY MEDICINE, ALPHARETTA, GA

Growth Strategy: Responding to rapid regional expansion north of Atlanta, physicians at North Fulton Family Medicine began strategic planning. Consistent practice goal has been to accommodate maximum same day encounters in response to patient requests.

In January 1999, at the time of data collection, the practice profile was as follows:

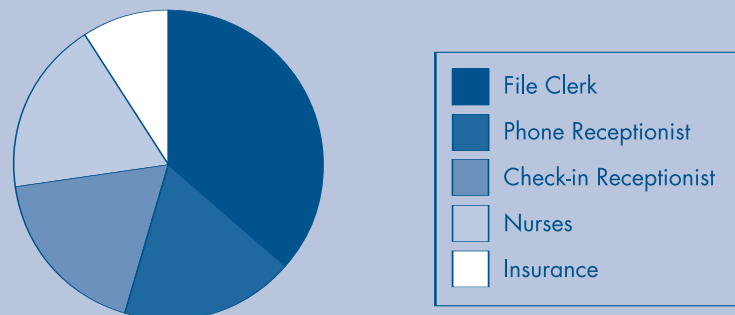
- 2 Locations²
- Live on HEALTHMATICS EMR since December 17, 1998
- Paperless since December 17, 1998
- 4 physicians/19 non-provider ancillary staff including 12 front-office, 1 x-ray and 6 back-office personnel across both locations³
- 100 HEALTHMATICS EMR encounters per day⁴

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 & receptionist⁵			\$110 per day / \$29,920 per year

NORTH FULTON MISSING CHART SEARCH MINUTES PER DAY

(Total Staff Time: 330 Minutes)



1. 2002 Modern Physician/PricewaterhouseCoopers Technology Survey
2. Managing 2 locations mandates increased staff. North Fulton estimates that without the satellite, front-office staff would be reduced by 4 FTEs.
3. At time of data collection in January, 1999. As of December, 2000 practice had 4 physicians, 5 PAs and 26 staff including 14 front-office, 1 x-ray, and 10 back-office personnel.
4. At time of data collection in 1999. Year 2000 presented a 38.5% increase in patients per day to date.
5. Hourly wage at time of data collection. Year 2000 hourly wage was \$12 which would have equated to a \$32,640 yearly expense without HEALTHMATICS.

Pre-HEALTHMATICS EMR Action	Responsibility	Volume per Day	Time/Cost Expenditure
New Patients Charting	Medical Records Clerk	19 ⁶	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.

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.

LAB RESULT HANDLING COST REDUCTION

Pre-HEALTHMATICS EMR Action	Responsibility	Volume per Day	Time Per Day in Minutes
In-House Lab Tests		35	N/A
Logging Results	Nurse	35	70
Delivery of Results	Nurse	35	35
Reference Lab Tests		50	N/A
Logging Results	Nurse/Lab Tech	50	250
Attachment of Results to Chart (not including Chart Pull Time)	Nurse	50	250
North Fulton lab result handling process minutes per day pre-HEALTHMATICS EMR		570	
North Fulton result handling process minutes per day with HEALTHMATICS EMR		0	
Total Time Savings		570 minutes	9.5 hours per day Total
Time Savings @ \$12 per hour for nurse wages⁸		\$114 per day	\$31,008 per year

Thomas Bat, MD, of North Fulton Family Medicine recalls: "We talked for three or four years about looking at different electronic records so we could simplify our typing, transcription and filing of charts," Dr. Bat says. "Once you start seeing a hundred patients a day, it becomes a monumental task." North Fulton Family Medicine's transcription costs now? Zero.

- 19 New patients per day calculated in 1999. Year to date, 2000, records indicated 25 new patients per day or a pre-HEALTHMATICS EMR expense which would have equated to \$50/\$13,5999 daily at a revised wage of \$12 per hour.
- Hourly wage at time of data collection. Year 2000 hourly wage was \$12 which would have equated to a \$16,456 yearly expense without HEALTHMATICS EMR.
- Hourly wage at time of data collection. Year 2000 hourly wage was \$13 which would have equated to a \$32,640 yearly expense without HEALTHMATICS EMR.

DRUG REFILL & RECALL MANAGEMENT

Drug refills are managed without the time/labor involved in a chart pull & related documentation of refill. Refills are generated and faxed directly from the chart.

In March, 2000 Janssen Pharmaceutica Inc., of Titusville, NJ, announced its decision to stop marketing cisapride (Propulsid) in the United States. The action was made, voluntarily, at the request of the FDA. Upon notification, Dr. Morrow of North Fulton Family Medicine contacted administrator Doug Ammons. Ammons' initial call was received at 9:00 and by 9:15 he was able to furnish a list of patients and their phone numbers to nurses for recall. Every patient affected was notified by the end of that day, greatly reducing the risk associated with cisapride.

REFERRAL LETTER MANAGEMENT

North Fulton Referral Letters			Time per Year in Hours
Pre-HEALTHMATICS EMR	Responsibility	Time per Day in Minutes	
Referral Letter Dictation	Physician	120	544
Referral Letters to Specialists	Transcriptionist	60	250
Cost Savings @ approximately \$2 transcription cost per letter is \$120 per day/\$32,640 per year			

MEDICAL CHART SUPPLY COST REDUCTION

North Fulton			
Pre-HEALTHMATICS EMR Item	Cost Per Order	Volume Per Day/Year	Cost Per Year
Encounter Forms	\$200	100/27,200	\$5,440
Office Visit Sheets	\$200	200/54,000	\$10,850
Lab Sheets	\$100	50/13,600	\$2,720
Medical History Sheets	\$100	50/13,600	\$2,720
Problem Lists	\$100	50/13,600	\$2,720
Total Supply Cost Savings Post-HEALTHMATICS EMR			\$24,480

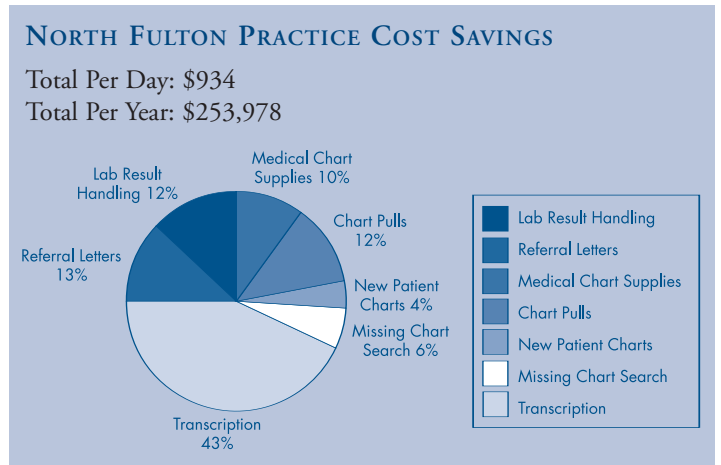
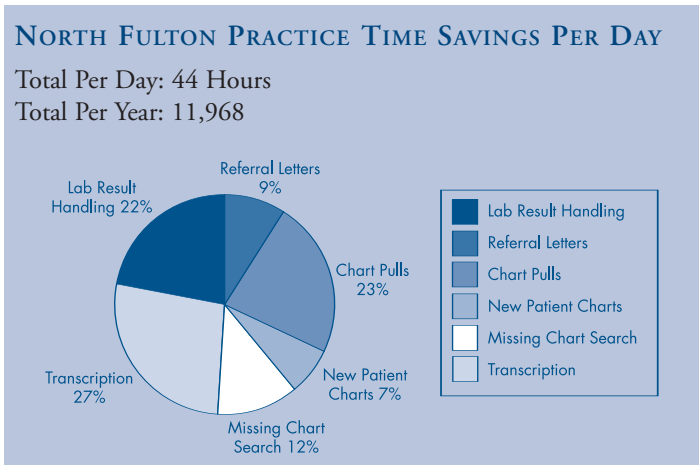
HEALTHMATICS EMR customers also report other areas of time/cost savings:

- Transport of charts between practice sites, and chart storage space reduction
- Ability to charge for some nursing visits, depending upon patient level of care
- Potential for bonuses on facility savings for managed practices

"We are seeing 38.5 more patients per day and we are still gone at 5:30 every night. There is no night dictation, no carry over to the next day. Doctors and staff all leave on time – we do today's work today," says Doug Ammon, Administrator for North Fulton Family Medicine in Alpharetta, GA.

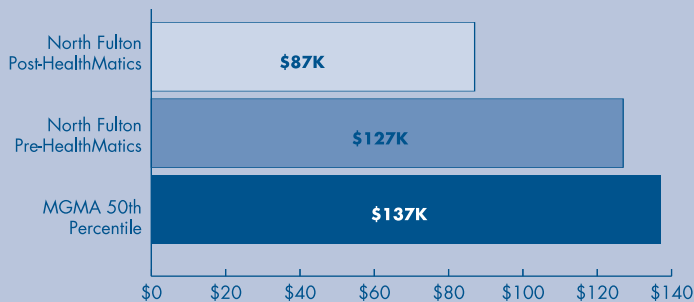
OVERALL NORTH FULTON LABOR & COST SAVINGS

NORTH FULTON BENCHMARKS: 2000



TOTAL SUPPORT STAFF COST PER PROVIDER

(Dollars in thousands)



Note: Survey data from 1999. North Fulton figures may have fluctuated due to practice growth since then.

"We have increased production by more than 30 percent in one year... with no increased overhead costs," states Dr. Bat.

"People come into our practice expecting chaos because of the patient volume. Instead, they find it so quiet they sometimes have the impression we aren't busy. I've come from an environment where patient charting created a constant daily flurry of activity. Now, I like to enjoy the silence and watch the activity that isn't happening," says Doug Ammon, Administrator for North Fulton Family Medicine in Alpharetta, GA.

REVENUE GENERATION: IMPROVED EVALUATION & MANAGEMENT CODING

Coding at the appropriate levels affords maximum reimbursement and reduces the risk of censure in the event of a Medicare audit. The HEALTHMATICS EMR's Evaluation and Management Calculator integrates ICD-9 and CPT coding, as well as HCPCS, in order to prevent downcoding, where losses can range from 3 - 15% of total revenue.

CODING IMPROVEMENT SAMPLE CASE¹⁰

Sample Practice	Patients Per Day	Average Downcoding	Average Daily Downcoding Loss	Yearly Loss of Revenue Potential
Pediatrics 13 Physicians 25 HEALTHMATICS EMR Users	200	15% of Patients (30 Encounters Downcoded Per Day)	\$1050 (\$35 Per Encounter)	\$201,500

FULL FIRST-YEAR RETURN

May, 1999		May 2000	
Cost per Patient	\$112.49/patient	Cost per Patient	\$79.32/patient
		Daily Savings per Patient	\$33.17
		Daily Savings for 130 Patients Per Day⁹	\$4,594 per day / \$1,249,568 per year

RESULTS: As a result of implementing HEALTHMATICS EMR, North Fulton has realized the following first year benefits:

- Saved 44 staff hours per day of practice and 11,968 hours per year
- Eliminated \$934 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, medical chart supplies.

Although overall staff numbers have increased, there has been a proportionate reduction in non-clinical staff and an increase in revenue generating clinical providers.

Total time savings in chart handling labor	600 minutes (10 hours per day)
Total cost savings in chart handling labor	\$29,920 per year
Total cost savings in medical clerk wages	\$9,474 per year
Total time savings in missing chart search	330 minutes (5.5 hours per day)
Total cost savings for file clerk and receptionist	\$116,456 per year
Total cost savings in transcription labor	\$110,000
Total time savings in lab result handling	570 minutes (9.5 hours per day)
Total cost savings in nurses wages for lab result handling	\$31,008 per year
Total cost savings in referral letter management	\$32,640 per year
Total cost savings in medical chart supplies	\$24,480 per year

Full first-year return as a result of revenue increase and cost savings totaled \$4,594 per day and \$1,249,568 per year.

9. Based on reported 100 HEALTHMATICS EMR patients per day in 1999 vs. 38.5% productivity increase in 2000.

10. Taken from actual practice data of HEALTHMATICS EMR client.