



**IMPERATIVE:
CASE STUDY:**

**Safe, High-Volume Patient Throughput
East Texas Medical Center, Athens**

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– **Dr. Daniel Bywaters**
Medical Director of the Emergency Department

- 42% INCREASE** in Patient Volume
- 715% INCREASE** in ED Patient Satisfaction
- 25% DECREASE** in ED Disposition to Inpatient Bed
- 60% DECREASE** in number of patients who Left Without Being Seen
- New Revenue **INCREASE** of **\$5,000,000** annualized, **10:1 ROI**



ETMC, Athens Manages Record H1N1 Volumes While Decreasing Length of Stay

Throughout the month of September, East Texas Medical Center, Athens (ETMC Athens) saw a 42% average increase in number of patients per day due to publicity of the H1N1 virus and took it in stride. Improved efficiencies in the Emergency Department facilitated by a process improvement firm, Compirion Healthcare, allowed the hospital to absorb the volume and still see an improvement in quality. Many other Texas hospitals were caught off-guard and resorted to setting up triage tents and drive-through treatment centers to deal with the influx of cases related to the H1N1 virus. Since April, forty-four people in Texas have died from the H1N1 virus.

Because of the foresight of ETMC Athens CEO Pat Wallace, Compirion Healthcare Solutions, from Elm Grove, Wisconsin, had been brought in five months earlier to conduct a process improvement project throughout the Emergency Department.

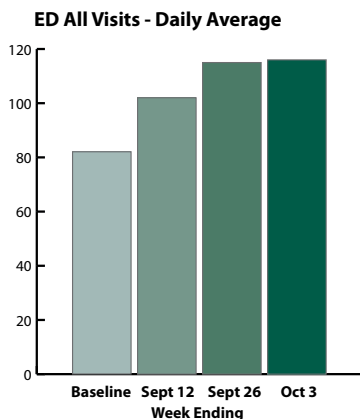
David Williams, Emergency Room Director, noted, “We had some issues with Patient Satisfaction and Length of Stay. We needed someone with the resources to help. We called several companies. Compirion was the best fit, and they had the best track record. They also guaranteed that they could get us where we needed to be.”

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ETMC Handles 42% Increase... *(continued)*

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– David Williams
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– David Williams
Director of the Emergency Room

Rebecca Powell, Chief Nursing Officer, championed the project led by Compirion. "I looked at a number of competitors. Compirion's references spoke highly of the kind of job their people did."

Project goals were to reduce overall Length of Stay, reduce Door-to-Treatment time, reduce the number of patients who Left Without Being Seen and improve Patient Satisfaction rankings in the Emergency Department and Inpatient units. The Compirion team was also charged with developing and implementing a service recovery system, reducing ED Disposition to Inpatient Bed time to within one hour, and improving Core Measures compliance. Hospital Administration wanted all of those issues addressed and fully implemented before construction began on its new, larger Emergency Department, scheduled to break ground in January 2010. Also in the agreement, Compirion was to develop a Surge Capacity Plan to handle increases in volume from H1N1 cases until the new facility is completed in January 2012.

According to Dr. Daniel Bywaters, Medical Director of the Emergency department, the majority of the new ED cases were due to the publicity given the H1N1 virus. Anyone feeling achy was heading for the Emergency Department. ETMC Athens had never seen volumes this high at this time of year, when the average had been about 82 visits per day. There were days the Emergency Department was seeing as many as 135 patients and 22 ambulances. Approximately 80% of the upper-respiratory patients were diagnosed with flu-like symptoms.

According to Bywaters, even before the dramatic increase in volume, "We had all sorts of issues with flow, attitude, patient satisfaction and the ability to see patients in a timely manner. ... These issues had been brought up many times and not resolved."

Williams added, "The most difficult obstacle to overcome was getting 'buy-in' from the staff. Morale was down. Each shift was doing its own processes. There was no consistency. Compirion got them to see 'need' where they had not seen it before and to follow up. They saw who was responsible and for what. They broke all processes down and worked through them. Our processes were a challenge. Patient Satisfaction was a huge hurdle. We needed to get staff to see that patients have a choice of where they go for treatment. They needed to see that patients needed to be treated with respect.

"We also had patient flow issues and needed more physician hours. Once we figured that out, it went fairly quickly. Rounding and callbacks, which we recently started, really helped move Patient Satisfaction scores up."

Working hand-in-hand with hospital staff, Compirion consultants began by creating Core Teams consisting of both management and front-line staff that

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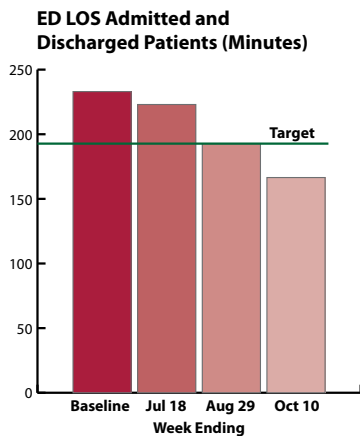
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ETMC Handles 42% Increase... *(continued)*

“One of the key things that had an impact was the Dashboard, so that we could see our times, the data and our accomplishments.”

*– Rebecca Powell
Chief Nursing Officer*



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*– Dr. Daniel Bywaters,
Medical Director of the Emergency Department*

focused on identifying, measuring, improving and implementing new systems and processes in critical areas throughout the hospital. The team chairs were responsible for keeping the teams focused and producing outcomes and goals on a weekly basis.

One of the teams started by observing and assessing processes, procedures and patient flow from registration in the ED through patient discharge or disposition to the floors. They found that patient flow management rested primarily with the physicians, who were understaffed, and their ability to see patients timely. The Charge Nurses were task-oriented, taking assignments on all shifts, heavily focusing on direct patient care. A goal was set for transitioning the Charge Nurses from patient care management to patient flow management, with their role to be developed to include primary shift management. Physicians were down to three in a 24-hour period. On a peak day, one of the physicians took the initiative to call a colleague for help. A new physician shift was added, and hours were increased from 36 to 44 and then to 48.

Some of the key metrics were difficult to determine because ETMC Athens had no data support position and there was limited IT support onsite. The majority of their documentation was done on paper. Door-to-Doctor time and Door-to-Treatment time were manually calculated. They have someone who gathers the information. They are transitioning to electronic medical records and looking to automate the data-gathering process so it's not so labor intensive. Compirion provided ETMC Athens with proprietary tools for collecting data that would assist the ED management team in making proactive operational decisions. Compirion provided all of the necessary training and technical support for those daily management tools.

“One of the key things that had an impact (on moving patients through the department) was the Dashboard, so that we could see our times, the data and our accomplishments,” said Powell.

Non-standardization of process and procedures from one shift to another shift was also a huge problem affecting Length of Stay. As seen in many hospitals, each shift had its own way of dealing with patients, plus the Door-to-Doctor time was especially high because of complicated protocols. Those inefficiencies created another big problem with flow. New, simpler standardized procedures and protocols were developed, and hospital staff members were trained in the new process. Patient flow was redesigned to better utilize existing space and staff.

“The Flow Event, along with more physician hours, was a big trigger that caused a turning point in the project. Everyone from ED got together. Then we split personnel into two groups and had each come up with their own plan for the flow process. Then we merged the two. We implemented our new flow in a handful of days. The great part was that our own staff had input and ownership into it,” commented Bywaters.

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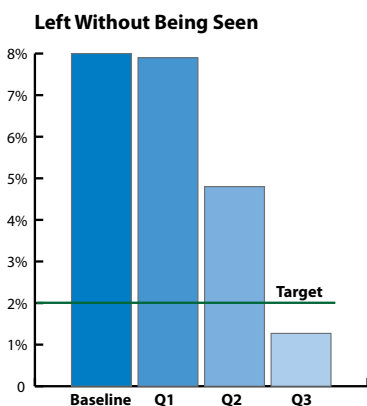
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*– Rebecca Powell
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“It was great timing to have Compirion here to help us before the volume hit. It was busy, but the good news was the workflow redesign made the increased volume tolerable and workable; otherwise, it would have been a disaster. We made our processes parallel instead of linear. This was a huge achievement,” added Powell.

As part of the new management system, a complex but easy-to-use Flow Diagram was developed by Compirion, ED leadership, physicians and staff to help hospital personnel better manage the numerous small but critical changes. The diagram also enabled hospital staff to identify problem areas and develop their own solutions. The workflow process was blown up to mural size and posted in a prominent place in the Emergency Department.

“We opened a separate care area to see the low-acuity patients. It helped us identify the need to improve communication between triage and care. It was also very helpful to have an Electronic Tracking board that also helped improve communication,” said Powell.

The flow redesign featured a five-bed Fast Track, available during peak hours from noon to 7 pm (expanded to 9 pm when needed), set up in the front part of the ED. Patients walked in, were greeted and quickly registered, then were triaged. If they were low acuity (displaying flu-like symptoms), they were sent to Fast Track to be treated and released. After the implementation of the new flow system, time from Emergency Department Patient Disposition to Inpatient Bed surpassed the target within three days. The overall Emergency Department Length of Stay for Discharged and Admitted patients dropped 34%.

While many of the staff got behind the new order and genuinely tried to do the right thing, some were still resisting change. Consistency had been the primary challenge. The ED would have many days in a row with good to excellent performance, but with a couple of bad days each week that brought the overall numbers down. Inconsistent staffing appeared to occur on those days, often with agency or PRN staff not accustomed to working together or familiar with the ED’s processes. That is an area where the Flow Event significantly helped the staff understand that the focus of the department would be on the patient. Once implemented department-wide, the Flow Event created greater consistency between shifts and days of the week. ED leadership reinforced daily rounding with the staff to provide service recovery, as needed, and gave immediate feedback on performance. The senior management team began weekly rounding in the department. The entire staff received a clear message that their work is important, and they began performing to higher standards.

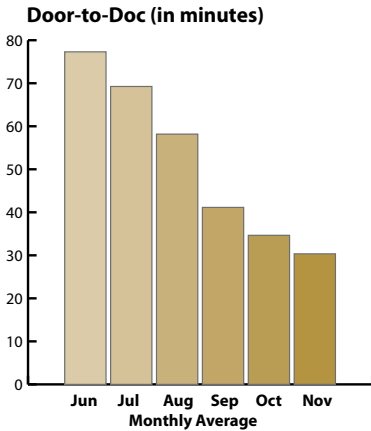
Improvements in patient flow created an environment where staff attitudes became more positive. Their motivation improved as hospital personnel began to believe things could really change. Some of the Charge Nurses stepped forward and displayed strong leadership skills. They did the necessary follow-through to embed the changes in the department.

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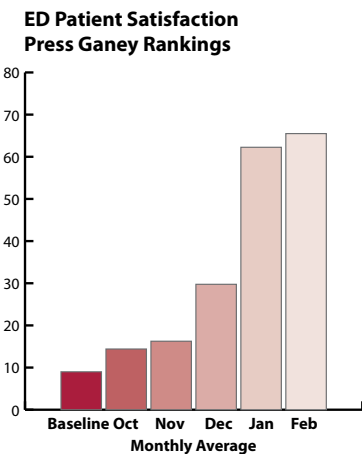


“Our people on our team were the ones that really pushed the project. Compirion provided the tools to reach their goals. We saw medium performers ... become high performers.”

*– David Williams
Director of the Emergency Department*

“From an administrator’s viewpoint, they liked the fact that they (Compirion) are hands-on and active throughout the week and weekends. It’s crucial to making things happen.”

*– Dr. Daniel Bywaters
Medical Director of the Emergency Department*



“We really put a lot of responsibility on the Charge Nurses,” said Williams. They were key because they are on the front line on a daily basis. They are checking on every patient, every thirty minutes. We started an in-house patient satisfaction survey. The Charge Nurses are in charge of the surveys. They are also in charge of callbacks. They call certain DRGs and make sure they received instructions, medications, and that they answer any questions the patient has. They have done a great job.”

Patients began experiencing a more polished, professional and caring staff after implementing the regimen of in-house patient satisfaction surveys, service recovery and 100% callbacks to patients after treatment within 24 hours of discharge. Patient Satisfaction scores improved more than 450% over four months.

“Our people on our team were the ones that really pushed the project. Compirion provided the tools to reach their goals. We saw medium performers step up and become high performers. Some people left because this wasn’t their thing. Some we allowed to leave,” said Williams.

“The medical and nursing staff has been very committed to improving the way things are done. Everyone buying into the change is what made the project successful,” commented Compirion’s Senior Vice President of Operations.

For the last two years, ETMC Athens leadership had been working on a Surge Plan in the event that capacity in the Emergency Department would exceed its ability to safely treat patients before the ED expansion could be built. The ETMC Athens Emergency Department currently has 15 beds. The new Emergency Department will have 22. After Compirion was engaged, the Surge Plan was added to its list of responsibilities. Compirion and the ED staff returned with a Surge Plan within three weeks.

The Surge Plan took a proactive approach. Additional space was created and five rooms were added on a temporary basis by utilizing some vacant rooms outside triage and relocating the offices of a department director and coordinator. The ICU waiting room can also be occupied on a temporary basis and turned into two exam rooms. Carts stocked with supplies were added to the new rooms. The plan called for staffing by one MD and one new RN, in addition to the Triage Nurse already stationed in the area. Computer access could be achieved using laptops. The hospital was given formulas and predictive patient visit models for determining when the Surge Plan would be engaged. In the event of a surge, a group identified as the “Call-Back Six” were put “on call” to help until the volume becomes manageable again. The “Call-Back Six” consist of an ED Tech, an RN, a Discharge RN, a Registrar, a Radiology Tech and a Lab Tech.

As Compirion’s six-month engagement draws to a close, even with a volume increase of 42%, the overall Length-of-Stay at East Texas Medical Center in Athens, Texas, is down from 233 minutes to 165. Disposition-to-Inpatient-Bed

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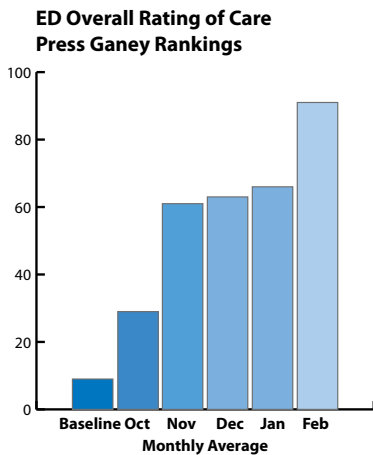
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- Dr. Daniel Bywaters
Medical Director of the Emergency Department



"Compirion 'hands-down' have been great people to work with. Their resources, their people. ... I can't say enough. ... It has been an intense project at times and they were very encouraging. ... It was a lot of work, but it was worth it."

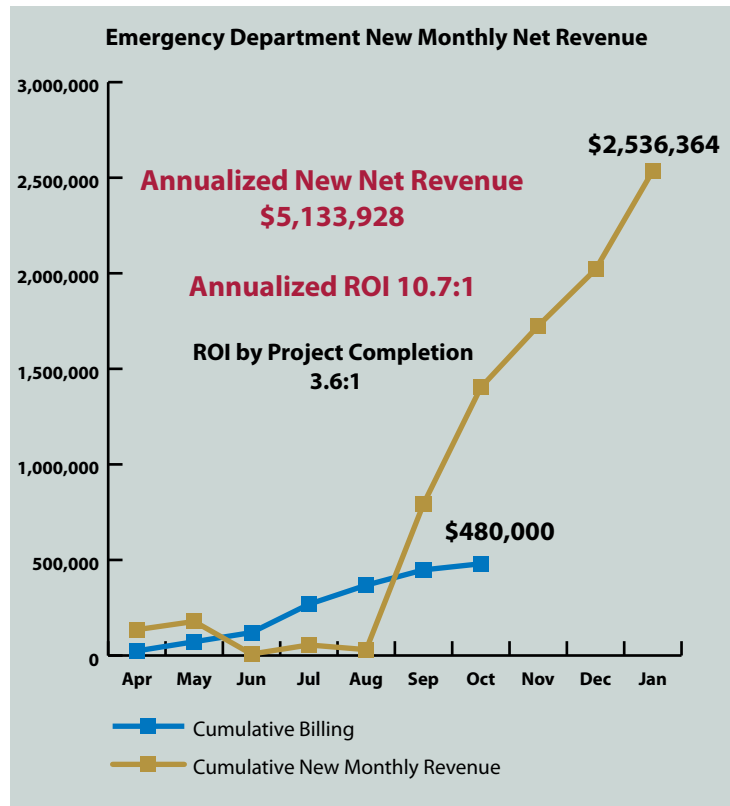
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time is down from 71 minutes to 53 minutes. The baseline number of patients who Left Without Being Seen was six per day and has dropped to less than two, down 66%. Remarkably, Emergency Department Patient Satisfaction score rankings have improved by 715% and are still climbing.

Bywaters added, "From an administrator's viewpoint, they liked the fact that they (Compirion) are hands-on and active throughout the week and weekends. It's crucial to making things happen. They don't use e-mails to communicate. The personalities of the consultants involved were focused, with good people skills, and they were persistent and creative. If something didn't work, they would come up with something else. I shudder to think what would have happened if our friends from Compirion hadn't been here. Now it is busy but not as difficult as it was before Compirion came. It is much better, even at these volumes, now that our process has improved. I am very appreciative that Compirion has helpful, courteous, hardworking and effective people. They have been a pleasure for me to work with."

Williams added, "Compirion 'hands-down' have been great people to work with. Their resources, their people...I can't say enough. They have been amazing. It has been an intense project at times, and they were very encouraging. They were very sensitive and coached the staff and me. It was a lot of work, but it was worth it!"

For more information on Compirion's sustainable healthcare solutions, call **1-866-661-4677**, or visit www.compirion.com/ETMC.



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