

Greene County
Emergency Medical Service Evaluation
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Completed By:

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Overview

The Greene County Mayor contacted CTAS regarding multiple issues with the Greene County Emergency Medical Service (EMS) agency. The Greene County/ Greeneville Emergency Medical Services Board meeting was attended by CTAS and a formal request was made to evaluate the Greene County EMS operations. A number of items were discussed at the meeting to be looked at during this process. They included:

- Financial stability of the agency
- Shift schedule/ staffing
- Management/ leadership evaluation
- Agency morale
- Response times (this includes extended dispatch to responding times)
- Efficiency of the agency
- Customer service engagement
- Employee performance/ evaluation process
- Agency image improvements

Study Dynamics

The study involved a review of financial data; incident response data; review of current ambulance operations; and an ambulance employee questionnaire. A number of challenges were encountered while conducting the evaluation including the lack of exportable and usable data and the retirement of the former director.

Conclusion

At the start of this analysis, the Greeneville-Greene County Emergency Medical Service had a large number of issues that needed correcting. These are documented in this report. In a very short time under the direction of the interim director, a number of these issues have been identified and many corrected or in the process of creating a plan of correction. Greene County has a great opportunity to have a first class EMS agency serving the citizens and visitors of the county. Access to local hospitals and relatively short transports out of county for additional healthcare creates opportunities for a more efficient and lower cost of operations. Developing partnership with the local hospitals, fire departments, and law enforcement agencies will yield benefits for the agency and the county as a whole.

A lot of work remains to be done and changing the culture of the GCEMS will not happen overnight. It will take strong leadership, support from the community and elected officials, buy-in at all levels of the staff, strategic hiring and promotional processes, and the ability to question how things have been done in the past and determine, when necessary, a better way to conduct business in the future.

Overview

The Greeneville/ Greene County Emergency Medical Service (GCEMS) provides emergency medical response throughout Greene County. The agency operates six Advance Life Support (ALS) ambulances out of four stations providing 24 hour coverage and two additional Basic Life Support (BLS) “day” trucks. The agency is staffed by 18 paramedics, 22 emergency medical technicians, three supervisors, one Field Operations Officer, a Director and a billing staff of four personnel. There are an additional 20 part-time staff.

Like most areas of the state and the nation, Greene County Emergency Medical Service continues to see a rise in call volume. There were 8,865 transports in fiscal year 2012; 9,103 transports in fiscal year 2013; 10,165 transports in fiscal year 2014 and transports are projected to exceed 10,900 transports in FY2015 and 11,550 for FY2016. These numbers do not include the total number of responses. In addition to the incidents that generated transports, there were calls that the patients refused transports and “well check”/ public assist request without transport. These incidents were poorly documented in the past, so it is difficult to have the correct numbers. The increase in call volume, tightness of fiscal resources, and the uncertainty regarding future healthcare regulations and reimbursements makes it imperative that the agency work to ensure that it is operating at the highest level of efficiency and is responsive to the needs of the community that it serves.

There were a number of issues that became evident as this analysis was conducted. Unfortunately, due to the inability to export incident data in a useable format, further operational analysis could not be completed. It is recommended that the GCEMS develop a plan and acquire the necessary software to utilize the incident data as will be discussed later in this report to develop an ongoing operational effectiveness analysis to continually assess and improve the delivery of EMS services in Greene County.

The American Ambulance Association’s publication *EMS Structured for Quality* states that a “High Performance Emergency Ambulance Service is the delivery of clinical excellence, response-time reliability, economic efficiency, and customer satisfaction—simultaneously. For a system to be considered high performance, it must measure its performance using nationally accepted high-performance standards, and it must continually compare itself to other high-performance emergency ambulance services using independent expert evaluation.” The document goes on to discuss the five “Hallmarks to Ensure High-Performance Emergency Ambulance Service.” Those hallmarks are:

1. Hold the emergency service accountable.
2. Establish an independent oversight entity.
3. Account for all service costs.
4. Require system features that ensure economic efficiency.

5. Ensure long-term high performance system.

In order to achieve these hallmarks, it is imperative that all components of the EMS system be measured routinely. This includes, but is not limited to:

- Fiscal resources (expenditures, revenues)
- Response time matrixes
 - Dispatch call processing time
 - Dispatch to responding time
 - Responding to on the scene time
 - On scene times (should be evaluated further depending on call type)
 - Transporting to available times (this would be evaluated further to include in county and out of county transports)
- Unit hour utilization (percentage of time that in service units were spending on calls)
- Clinical evaluations
 - Advanced life support procedure success/failure rate
 - Patient care protocol compliance
 - Patient outcome (percent of positive or no change)
 - Defibrillation availability (percentage of cardiac arrest incidents with defibrillation applied within five minutes)
 - Extrication availability
 - Extrication equipment on the scene within 8 minutes or less for incidents requiring extrication
 - Incident response to patient extricated time
 - Employee injury and illness rates (including non-required reportable incidents)
- Employee development
 - Continuing education
 - Advanced skills
 - Customer service training
 - Supervisor development

- Employee turnover
- Ambulance fleet reliability
 - Preventative maintenance
 - Mechanical issues
- System user opinion (feedback from patients and family that have used the services)
 - Can include feedback from other allied emergency service and healthcare agencies (fire/rescue departments, law enforcement, emergency room staff, nursing home staff, etc.)

Once the agency has reliable data that is measured, it will be in a much better position to evaluate strengths/needs and to use this evaluation to justify changes in the current system structure and/or delivery of services.

Some of the data is dependent on outside agencies (i.e. fire departments, 911 dispatch, law enforcement, other local service entities, private industry, etc.). This underscores the strong need for GCEMS to partner with these groups to develop a comprehensive program that addresses not only emergency medical response, but all-hazards injury/illness prevention programs to reduce the amount and severity to injuries, cardiac arrest, and strokes to name a few examples. This would include working with local fire and law enforcement agencies that are capable and willing to provide first response medical, automatic defibrillator programs in commercial buildings, and injury and illness awareness programs to at risk groups. Programs such as these will not only improve the quality of life within Greene County, but will improve the public image of GCEMS to the residents and elected officials within the county.

CTAS conducted interviews, evaluated financial data, and created a questionnaire in order to get a more comprehensive analysis of the GCEMS. The following is a list of the more pressing issues that were identified through this process.

Issue #1: To increase efficiency and productivity, a shared mission and purpose for the Greene County Emergency Medical Service (the Service) needs to be clearly defined. All parties with a vested interest need to have buy-in of this vision. Currently this appears lacking in the GCEMS. Additionally, there seems to be a communication breakdown among the vested parties that has contributed to a lack of shared vision and purpose.

While the GCEMS has a mission statement, it should be reviewed and updated and the creation of a five year strategic plan initiated. My observations and interviews provided the conclusion that there is a lack of shared vision among the staff, management, ambulance board and county commission. We perceived this lack of shared vision to stem from the previous management's failure to implement a successful communication strategy between all vested parties. This failure appears to have contributed to a low level of employee morale, as well as increased

frustration on the part of the county commission. This issue has culminated into a “we vs. them” mentality between the various stakeholders of the ambulance service staff.

Recommendations:

- Recommend that there be an update and clarification of the mission statement, as well as the creation of a vision statement and strategic plan, of the GCEMS. These items should have “buy-in” from all vested shareholders and not be merely items that are hung on walls and/or filed away, but are a vision with shared objectives and goals that motivate and guide the organization forward.
- Recommend that the leadership team be directed to attend continued professional education on workplace communication and leadership techniques for managers. It has been said that employees leave managers, not companies. Employees tend to create a perception of their place of employment from the actions, attitudes, and words of their managers. There were numerous complaints from Service employees (as documented in the evaluations and interviews) that they perceived favoritism, a lack of communication about important issues, and that their input as employees did not matter to management as serious issues in the Service.
- If liability insurance will allow it, institute a county commissioner “ride along day” where commissioners can spend a day observing an ambulance crew in operation. By allowing the opportunity for county commissioners to see the service operate firsthand, a greater understanding of the needs and mission of the organization will be gained. We recommend that, if possible, employees be paired with county commissioners from their districts.
- Implement a “ride along day” for the employees of the Ambulance Service where they will review a commissioner meeting packet with a commissioner and then sit with that county commissioner in a commission meeting (preferably at budget time), in order to have a greater understanding of the county commission’s role in county government. They will also see some of the issues that the Greene County Commission faces (i.e. law enforcement, jail and school funding issues).
- Implement a formal employee suggestion award program, similar to the State of Tennessee’s program that allows individual employees to submit their suggestions for improvements directly to the ambulance authority. Reward employees monetarily if their suggestions create significant cost savings to the county.

Issue #2: There has been a perception that the GCEMS billing practices have been inefficient in the past. While four full-time positions that only work with billing and collections may be high,

the fact is that the collection rate is around 85%. This is very similar to what a third party billing vendor would collect.

Recommendations:

- The job descriptions of the administrative staff should be closely reviewed and updated. At the current time, the job descriptions are very simple. However, the staff documented and submitted multiple pages of their daily duties. The job description is used as a base line for conducting employee evaluations and the updated descriptions will help to ensure that the staff is meeting the expectations of their current position.
- Consider utilizing the administrative staff to support field operations. This could include ordering of uniforms and supplies, human resource type assistance, data management, and administrative support for the director. It is imperative that this would be a supporting role and not supervisory in nature over the operations staff.
- Ensure that a timely incident run report review to be conducted by the operations staff prior to the reports being sent for processing. This will ensure that that documentation errors will be corrected by the operations staff and reduce the number of confrontations that have occurred in the past between the operations personnel and billing office.

Issue #3: The ambulance operations are currently budgeted in the county general fund. With the service in the general fund, it is difficult to capture the true total cost of the service. This budgeting practice is cited by the American Ambulance Association as one of the main reasons why government-owned ambulance services are difficult to perform performance management and benchmarking activities on (i.e. what is the actual total monetary cost of the service, true total cost per run?). The final audited numbers indicate that the service operated at a profit for two of the past six fiscal years through FY2014. The total loss for this time period was \$326,067 or about \$54,300 per year.

Recommendations:

- The county commission should budget the ambulance service operations in a special revenue or enterprise fund. Budget all patient revenue into this fund and set a tax levy (if needed) directly on the fund for the amount needed to subsidize the operations. The use of a special revenue fund for accountability of an ambulance service is regarded as a budgeting “best practice” as it allows commissioners and management to benchmark operations and utilize performance-based budgeting easier.
- The approval of the resolution making GCEMS as the exclusive provider of ambulance service in the county will help ensure the financial viability of the agency and should reduce the revenue loss to “balance” the expenditures and revenues. With the right

leadership and budgeting practices, it is anticipated that the GCEMS will be self-sufficient from a funding perspective in the future.

Issue #4: One of the main concerns of the field personnel was the fact that essential medical supplies were not always available. This included basic items such as nasal cannulas.

Recommendations:

- A complete review of the inventory system should be conducted including the use of modern software to identify stock usage, items on hand, and timely ordering of supplies to ensure that the essential supplies are available for patient care.
- Management should coordinate with surrounding larger counties to ascertain if there is a desire in the area to create a multiple county cooperative bid for pharmaceuticals and supplies. A successful cooperative would not only yield large potential savings to Greene County, but also increase interoperability throughout the region through standardizing equipment/supply usage. This practice has been successfully implemented in other regions of the country.

Issue #5: A quality assurance/ quality improvement (QA/QI) program did not exist in the department at the time that this evaluation was started. This process is required by the State of Tennessee for licensure of the agency, but is also critical for achieving clinical excellence in patient care and a vital management component to ensure that skill levels and procedures meet the needs of the community at large.

Recommendation:

- Establishment of comprehensive and timely QA/QI program within the department. Input for the scope of the program should be solicited from the staff, the medical director and the State of Tennessee’s EMS Consultant for the Region.
- Some of the particular items to focus on include:
 - Cardiac Arrest Survival
 - Critical Invasive Skill Success
 - Correct Protocol Utilization
 - Correct usage of BLS Interventions
 - Refusal of Treatment (this has been poorly documented in the past according to a number of staff members)
 - Outcome Improvement of Key Clinical Presentations (blood sugar level stabilization in hypoglycemic patients, chest pain reduction, improved airway

movement in difficulty breathing patients, pain reduction in trauma patients, etc.)

Issue #6: The medical first responder program in the county is very spotty. Currently the city of Greeneville Fire Department provides first responder inside the city and two of the volunteer fire departments provide first response within their zones. The Greene County Sheriff's office has a unit dedicated to the "South Greene" zone that is partially funded by the GCEMS. This leaves significant gaps in the unincorporated areas of the county.

Recommendation:

- The entire county should be evaluated in regards to a systems approach to medical care. This would include the use of emergency medical responders (first responders) in all areas as practical.
- Use the current funding for the South Greene first responder unit to purchase automatic external defibrillators (AED's) and medical bags to be placed in patrol cars and additional fire department zones. Along with the equipment purchase, a plan could be created to send law enforcement and fire personnel to training to obtain licensure as emergency medical responders, emergency medical technicians and beyond. This would establish a countywide system that will have trained and equipped personnel on the scene of critical life threatening emergencies in a short amount of time until the closest ambulance arrives for more advanced care and transport.

Issue #7: Departmental pay is below average for comparable agencies in the area. This issue makes it difficult to recruit top personnel and to maintain current personnel. This must be corrected to help stabilize the turnover rate in the agency. Leave policies have been adjusted to counter the low wage rate.

Recommendation:

- A salary survey should be conducted with other agencies in the area. This survey will most likely only be able to compare with other government agencies since the private services typically do not share that information for market competition purposes.
- The director's pay is significantly below average and should be increased before the permanent director is named.
- EMS has a significant number of built in overtime hours due to the fact that most of the crews work 24 hours at time. This overtime is part of the "normal" working hours and is calculated into the annual salary. In order to reduce the non-built in overtime hours, the part-time employee pool should be increased and utilized as much as possible when filling shifts for employees who are on sick or vacation leave.

- Once the pay rates have been adjusted to make the salary ranges more competitive with the market (this may take a couple of budget years), the leave benefits should be re-evaluated to be in line with other county benefits keeping in mind the shift hour differential.

Additional Issues: A number of management and leadership issues were identified during the assessment process. Results from the employee survey are listed in Appendix A. The following items need to be addressed by the leadership team:

- Uniforms- During the station visits, it was quickly apparent that the personnel did not wear consistent uniforms. There were a number of different uniforms worn by staff, including a couple of crews that did not match. The lack of uniform coordination and some staff having an unkempt appearance gives the public an unprofessional image of the crew and the agency. A consistent uniform policy must be created and followed by all crews and supervisors.
- Supervisor training- Leadership and management training should be required for current supervisors (this is mentioned above) and offered to potential future leaders in the agency. This is imperative to insure that the most qualified personnel are in the position of leadership and supervision and will help to develop the next generation of leaders within the department. One of the issues that was brought up from a number of the line personnel is the perception that employee treatment and enforcement of policies was inconsistent across all shifts. This type of training and strong leadership from the director will help to minimize this perception of the staff.
- Quality Assurance/ Quality Improvement (QA/QI) officer- This position would be the lead in the QA/QI program as identified above. The QA/QI officer must hold licensure as a paramedic.
- Training officer- The department needs a dedicated training officer position. The duties would include monitoring of licensures and certifications, coordination, scheduling, and when appropriate instructing of in-service and specialized training. Additional responsibility would be working with the QA/QI officer to assist personnel with remedial training when identified through the QA/QI process. The training officer must hold licensure as a paramedic.
- Policy manuals- The current policy manual should be re-evaluated and updated as necessary. In addition, the manual could not be found in some of the out-lying stations. This is an issue and makes it difficult to hold staff accountable when this document is not readily available for review.
- Administrative building- The ambulance billing and director's office is currently located in a shared facility with the Sheriff's maintenance office. This creates an issue for the security of patient records and billing services. The department should look for a facility

that would be more conducive for the administrative functions of the agency. This would include a meeting room that could be used for training and hosting classes.

- Employee Evaluations- The department does not conduct employee evaluations on a regular basis. This is a critical function of any organization to ensure that the staff is meeting the requirements of their job description and duties. This is an opportunity to document personnel that are doing an excellent job and going beyond the scope of their responsibilities. The evaluation also provides an opportunity to identify areas that need improvement and an action plan for assisting the employee with the identified areas. At a minimum, evaluations should occur once a year, but may be conducted more often.
- Incident data- All incidents must be documented including cancelled en-route, patient refused transport, and public assist. The department needs to ensure that any billing/ incident reporting program that it uses is able to extract critical data; such as, incident location, type of call, incident times (dispatch time, dispatch to responding, on the scene, transporting, destination at facility, and available/ back in service.) As the 911 office works to purchase a new CAD system, it is important to keep these parameters in mind in order to have a third party set of data to evaluate operations.
- Customer service- A number of the stakeholders (both inside and outside the agency) indicated that the department has “poor customer service”. Some of the issues stated included: long “out of chute” times, appearance, attitude by some crews, etc. A lot of this can be attributed to poor morale that becomes the “new norm”. This must be addressed with strong leadership that sets the tone with the proper attitude toward the external customers as well as the internal workings of the agency.
- Public education and outreach- It is very important for an EMS agency to look at its role in the community health care is more than just a response to injury and illnesses. A proactive outreach program will improve the image of the department within the community and help to keep the citizens safe and healthier. This could include injury reduction programs with the schools and high-risk populations, CPR and automatic external defibrillator classes, wellness fairs, festivals, etc. Additionally, as the healthcare landscape continues to change, the department should look into partnering with the local hospitals to develop a community para-medicine program in the future.
- Billing office- The billing office has a cat that resides in the office. While this cat is like a part of the “family” with some of the office staff, it could create a liability for the county. A customer or employee with allergies could have an anaphylactic reaction. It is recommended that all pets be removed from the work environment.

Appendix A

Employee Engagement Survey

As part of the review of the Greeneville/Greene County Emergency Medical Service, CTAS conducted an organization-wide employee survey. An electronic survey was sent to the employees that had email addresses submitted to CTAS. A follow up visit to each of the stations dropping off paper copies of the survey resulted in additional input received. The survey was anonymous in nature and employees were instructed to be open and professional in their responses. The majority of the staff that participated was very receptive to this survey and expressed appreciation in having the opportunity to voice their opinions and suggestions.

The results of this survey can be used by management as it begins to develop a strategy for improving the working conditions within the agency.

| Question | Agree | Disagree | Not Sure |
|--|-------|----------|----------|
| My work is satisfying to me. | 26 | 0 | 0 |
| The officers/supervisors treat me fairly. | 18 | 6 | 2 |
| I plan on working for Greene County EMS next year. | 16 | 4 | 6 |
| I am proud to work for Greene County EMS. | 18 | 6 | 2 |
| I understand what is expected of me at work. | 24 | 2 | 0 |
| It is easy to talk to the officers/supervisors. | 17 | 6 | 3 |
| I feel free to tell my officers/supervisors what is on my mind. | 16 | 9 | 1 |
| I believe the EMS written policies and rules are fair. | 14 | 7 | 5 |
| If I knew a paramedic or EMT looking for a job, I would recommend Greene County EMS. | 13 | 9 | 4 |
| Greene County EMS is customer service focused. | 10 | 12 | 4 |
| The officers/supervisors give praise when it is deserved. | 8 | 14 | 4 |
| I feel safe under the command of my officers/supervisors. | 11 | 10 | 5 |
| The Greene County Commission supports our EMS service. | 1 | 19 | 6 |
| Favoritism by management is a major issue in our EMS. | 15 | 8 | 3 |
| I am confident in the decision making skills of our management. | 6 | 15 | 5 |
| This is a better place to work than it was last year. | 1 | 19 | 5 |
| I have what I need to get my job done. | 6 | 17 | 3 |
| As an employee of Greene County EMS, my opinion seems to count. | 4 | 19 | 3 |
| I am paid fairly for the work that I do. | 2 | 20 | 4 |
| The supervisors/director keeps us informed of what is going on with our agency. | 5 | 17 | 4 |

In addition to the above questions, the employees were asked three opened ended questions. Here are the responses to those replied:

What are three particular things that you like about Greene County EMS?

- Everyone is easy to get along with
- It is a nice place to be
- It is a place with some of the nicest employees
- Helping the citizens of Greene County
- I live in county
- Schedule
- Benefits (time-off)
- The family like environment
- Maintaining a rotation with calls
- Crews are finally rotating stations
- Taking care of people
- Most of my coworkers are very competent in their job
- Immediate supervisors try to take care of their employees
- I love working for GCEMS and taking care of my patients
- I love my vacation and sick time
- We have some of the best Paramedics and EMTs around.
- I like that I can talk with my supervisor any time, he has expressed that many times with me.
- I like serving my community and citizens of Greene County.
- I like my vacation, sick time, and retirement offered by the service.
- The employees are friendly and easy to get along with.
- I enjoy being able to assist and help members of the community.
- The amount of vacation and sick time are nice but the lack of pay prevents me from taking vacation.

- I am passionate about being a Paramedic. I do love my job when it comes to providing care.
- I work beside some of the best Medics and EMTs I have ever met, they are all passionate.
- I grew up in Greene County, I love serving my county.

What are three particular things that you dislike about Greene County EMS?

- Management
- Pay
- Supplies
- Pay scale
- Lack of equipment at times
- People not showing up on time
- Low pay
- Degraded / lack of equipment
- Lack of structure in work environment
- Pay
- Lack of structure
- No accountability
- Favoritism
- Lack of equipment
- Deceit from management
- The bad reputation we have in the community
- Politicians that have no idea what we do
- Lack of leadership at the management level
- People have taken over or influence the decision making
- Lack of supplies
- County commissioners always cutting us and not understanding what we do

- No consistency
- Not having equipment or supplies because of budget cuts or not having the money to buy the supplies.
- Not getting recognized for the good the EMTs and Paramedics have done such as raises or performance reviews or evaluations.
- Not getting paid enough money for regular shifts, thus causing many EMTs and Paramedics to work overtime to make ends meet.
- The unfair treatment of employees by management.
- Lack of communication and inability to make appropriate decisions regarding business and employees.
- Not having the appropriate supplies to operate and lack of building maintenance.
- There is no structure in management, employees that have been here for a long time and have worked with people in management positions before they were in those positions can come in late, no call, no show, leave in the middle of shifts, etc.
- No enforcing uniform policy. Older employees treating patients badly & supervisors takes up for employee. No one certified to work on the trucks (mechanically). We have been lied to about things that are going to happen or one supervisor said one thing another didn't, etc. (no consistency).

If there is one thing that you had the power/authorization to change about Greene County EMS, what would you change?

- The pay rate
- More staff and units to help cover the amount of calls we now run
- Pay raises
- Pay rates – rewards for time served
- Accountability
- Quality assurance programs (nothing in place)
- Office staff being able to hire and fire people because of trip tickets
- Training or in-service for billing programs prior to implementation
- Trying to get the stations equipped with internet so we would be paperless to leave units in zone in case of emergency call and add more trucks

- More money for employees and more trucks on the road.
- Increase pay, restructure the service, and make this an enjoyable place to work so that employees would enjoy working here.
- More training and public education.