INCREASING THE FORT WAYNE FIRE DEPARTMENT’S RESPONSE ROLE IN THE PUBLIC UTILITY MODEL EMS SYSTEM

STRATEGIC MANAGEMENT OF CHANGE

BY: Gary L. Brown, District Chief
Fort Wayne Fire Department
Fort Wayne, Indiana

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ABSTRACT

The problem identified for this paper was that the Fort Wayne Fire Department had a limited role in providing medical interventions during EMS response. The purpose of this paper was to develop recommendations to increase the department’s role with regard to its first responder medical intervention.

Methodologies used for this paper were a literature review of written material, a compilation of local data, and a department EMS survey. Evaluative research was used to answer the following research questions:

1. How has Fort Wayne’s use of the “public utility model” for ambulance service benefited the city?
2. Should the Fort Wayne Fire Department engage in or enhance the city’s use of its “public utility model?”
3. How can the Fort Wayne Fire Department best increase its level of training with regard to first responder medical intervention?

Procedures involved analyzing published information, examining a department EMS survey, collecting and quantifying statistical data, and applying the published, statistical, and survey information to the research questions.

Results indicated that, while the city EMS public utility model has been profitable, the future might bring adverse changes. Results also indicated that support exists within the department for increasing its role in the EMS area. Further results indicated that the EMT-A level may be the most cost effective and efficient method for the department to increase
its level of training for first responder medical intervention. This paper recommends that a review be conducted by the Three Rivers Ambulance Authority, assessing its future financial stability. It also recommends that the FWFD form an EMS Advisory Committee charged with the responsibility of establishing a comprehensive plan to increase the department’s first responder role within the existing system. It further recommends that this committee investigate the level of EMT-A as an efficient means of accomplishing this goal.
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INTRODUCTION

In January 2000, after a change of city administration, the Fort Wayne Fire Department began looking for ways to increase its involvement in the emergency medical services provided to its citizens. The department is currently certified as a basic, first responder, non-transport organization with defibrillator capabilities. The city’s EMS system is a separate governmental organization, and is based on the public utility model, where the process of day-to-day ambulance operations is performed by a contractor, with oversight of contract performance provided by the Three Rivers Ambulance Authority. Since the Fort Wayne Fire Department is the single provider of first responder capabilities for the EMS system in the city, any efforts to change its status requires the advice and consent of the governing body, TRAA.

The problem identified for this research paper is that the Fort Wayne Fire Department has a limited role in providing medical interventions during EMS response. The purpose of this paper is to develop recommendations to increase the department’s roles and responsibilities with regard to first responder medical involvement.

Methodologies used in this paper were a literature review of material provided by the National Fire Academy’s Learning Resource Center, department EMS run statistical data, and an EMS survey conducted within the department. Evaluative research was used to answer the following research questions:

1. How has Fort Wayne’s use of the “public utility model”
for ambulance service benefited the city?

2. Should the Fort Wayne Fire Department engage in or enhance the city’s use of its “public utility model?”

3. How can the Fort Wayne Fire Department best increase its level of training with regard to first responder medical intervention?

Procedures involved analyzing published information, evaluating a department EMS survey, collecting and quantifying statistical data, and applying published, statistical, and survey information to the research questions.

BACKGROUND AND SIGNIFICANCE

In 1966, a National Academy of Sciences report, Accidental Death and Disability: The Neglected Disease of Modern Society was published. This report documented widespread deficiencies in emergency medical care. The report also served as a catalyst for the creation of modern EMS systems as we have come to know them. During this period of time, the City of Fort Wayne operated its ambulance service as a part of their police department, with officers having little more than first aid training for patient care. As EMS grew in terms of levels of care, complexity, volume, and citizen expectations, the city legislated into existence a fully tax supported ambulance system known as the Division of Emergency Medical Services.

In 1981, Fort Wayne and Allen County passed various ordinances establishing the Three Rivers Ambulance Authority
(TRAA) as its administrative arm for the specification and oversight of EMS services. Additionally, a new EMS system concept was adopted for the city and county. The system that was chosen is commonly known as the public utility model. Under this system, the city was eventually able to provide advanced life care, with the Fort Wayne Fire Department acting as non-compensated medical first responders. Fort Wayne’s adaptation of the public utility model uses TRAA to oversee the operation of the ambulance service through the employment of contracted services. With the exception of the Fort Wayne Fire Department’s involvement as a “cross subsidy,” the system is user-fee based.

While some early attempts were made at upgrading the Fort Wayne Fire Department’s expertise in medical response and, more recently, the addition of automatic external defibrillator capabilities, the Fort Wayne Fire Department has remained limited to basic first responder skills. In previous administrations, the status quo was seldom questioned even though the majority of fire department runs were medical in nature.

Of late, the International Association of Firefighters has taken an active role with regard to EMS issues. The IAFF is encouraging locals to investigate their communities’ needs and to persuade their departments to get involved with fire-based EMS systems. In 1998, the bargaining unit for the FWFD, IAFF Local 124, took a leadership role in attempting to increase the department’s involvement in patient care. They suggested that
the department bid on TRAA’s 1999 ambulance contract. While TRAA had been performing well with their current contractor, American Medical Response, the union felt that the Fort Wayne Fire Department could bring more to the table. It was the union’s position that the department could put more units on the street and therefore enhance overall performance of the system. It was their view that if the Fort Wayne Fire Department could operate as efficiently as the contractor, the profits that they realized should be able to be converted into more “street time.” All parties’ interests centered on the department’s desire to enhance the EMS system as a future outcome.

Currently, no actions have been taken with regard to bidding on the ambulance contract. As a result, the department’s future challenge is to find the ways and means of providing enhanced first responder prehospital medical care for the citizens of Fort Wayne that is acceptable to the community and is both cost effective and efficient. To that end, this research paper is directed toward investigating and evaluating ways to increase the Fort Wayne Fire Department’s role with regard to first responder medical intervention only.

This paper is linked to the National Fire Academy Executive Fire Officer Programs Strategic Management of Change course. In attempting to provide an avenue for the change necessary to increase the Fort Wayne Fire Department’s involvement during EMS response, this paper will incorporate the Change Management Model as presented in that National Fire Academy course. In the discussion section, this paper will use the CMM’s “Phase I:
Analysis” as a first step toward systematic progress in meeting this challenge.

LITERATURE REVIEW

The first research question for this paper is "How has Fort Wayne’s use of the 'public utility model' for ambulance service benefited the city?" Analysis of the efficiency and effectiveness of the public utility model, as it is used in Fort Wayne, requires a review of its background. The literature review answering this question focuses on the origins of the public utility model and its subsequent application in Fort Wayne.

The Journal of Emergency Services (JEMS) described the history of The Public Utility Model in their forward to an article written by Jack Stout. JEMS (1980) wrote:

The model was conceived four years ago by a team of economists and behavioral scientists at the University of Oklahoma who undertook a theoretical analysis of the prehospital care “industry.” Known as the Health Policy Research Team, this group was funded by the Kerr Foundation and headed by Jack Stout, then a research fellow at the University. The theory of EMS as a public utility was then applied in Tulsa and Kansas City, through the consulting firm known as “The Fourth Party,” headed by Stout and Alan Jameson (p.22).

In the same article, Stout (1980) defines the public
utility model’s performance variables in this manner, “We ask our clients to view system performance in terms of four ‘bottom-line’ variables – four performance measures which can be applied equally well to any prehospital EMS system, public or private, advanced or basic, subsidized or unsubsidized” (p.23). These “bottom-line” variables are further described as “ . . . response time performance, clinical sophistication, rate structure, and per capita subsidy” (p.23).

The literature review of Fort Wayne’s public utility model and its performance in terms of the “bottom-line” variables described by Stout centers on its enabling legislation and the accomplishment of its intended outcomes.

The City of Fort Wayne legislated into existence the Three Rivers Ambulance Authority by way of its Three Rivers Emergency Medical Services Interlocal Cooperative Agreement. This Interlocal Cooperative Agreement (1981) states, “ . . . the Cooperative does hereby create the Three Rivers Ambulance Authority to provide or cause to be provided Advanced Life Support Services within the jurisdiction of the Cooperative” (p.8). Further legislation created the Uniform Ambulance Ordinance, the intent of which was to establish a working public utility model for Fort Wayne. The Uniform Ambulance Ordinance (1982) states, “ . . . the City and County have determined that a modified version of the ambulance system that has come to be known as the public utility model best fits the needs of the City and County . . . ” (p.2).

The performance of Fort Wayne’s public utility model over
its lifetime is summed up in the Three Rivers Ambulance Authority’s recent bid package documents. In their proposal to contract for paramedic services, the Three Rivers Ambulance Authority (1999) states:

The Three Rivers Ambulance Authority (TRAA) EMS System is one of the first and most successful installations of the public utility model approach to prehospital care system design. Since November 1981, the system has produced some of our industry’s highest levels of clinical sophistication and response time reliability, consistently delivering paramedic services well within the eight minute/90% reliability standard throughout the entire metropolitan area of Fort Wayne, Indiana, and furnishing paramedic services throughout all of Allen County, while gradually reducing its dependence upon local tax subsidy, eventually to zero as of January 1, 1987. Since 1987, the TRAA system has continued to operate free of tax subsidy with minimal rate adjustments (p.10).

While Fort Wayne’s public utility model has been performing well financially for more than a decade, the literature review indicates that this may not be the case in coming years. In a *Fort Wayne Journal Gazette* newspaper article, Emmerson (2000) reports:

Ambulance services could find themselves in financial straits next year, when Medicare implements new rules on how much it will pay for ambulance runs involving the elderly. The new rules, which take effect Jan. 1, 2001,
will reduce private ambulance services such as TRAA to accept Medicare assignments, which prevents the billing of patients for any more than what Medicare pays (pp. 1A, 4A).

The second research question asked in this paper is, “Should the Fort Wayne Fire Department engage in or enhance the city’s use of its 'public utility model'?” The literature review concerning this question can only be described as biased in favor of any fire department’s increased involvement as a way to enhance EMS systems.

However, increased involvement in any EMS system does not usually happen without growing pains. Gresham (1994) writes: Nearly everyone close to a fire/EMS partnership, however, relates stories of fire-service resistance to EMS integration. Most speak of this friction in the past tense. While many fire-service hardliners once vigorously voiced disapproval, their leanings toward EMS have slowly changed. For EMS enthusiasm to take root, strong support must come from the top. And many in both the EMS and fire-service realms underscore that if EMS is going to work in the firehouse, a commitment to medical care must exist at the administrative level (p. 49).

Adaptation to new or increased involvement in EMS appears to be another growing pain, as the United States Fire Administration (1997) reports: Those wishing to begin an EMS program in a fire department must understand that not all firefighters (or fire officers) will make the adaptation enthusiastically. For
many, fire-service EMS is still a new paradigm. Traditionalists may protest the change because they joined the fire service “to fight fires.” They state that had they wanted to be paramedics, they would have joined an ambulance service. Some argue that the quality of firefighting will be diminished because the firefighters will become the “jack of all trades, but the master of none.” Countering these feelings will require time and effort. This is true for any paradigm shift, but it is especially true for the fire service, which is generally steeped in tradition and frequently manifests an incrementalist attitude about change (p. 5).

Advocates of partnerships between the public and private sectors believe that joining forces can work. In his article, Ruppert (1997) says:

Experience has taught that, before attempting to procure a public/private partnership with a local EMS agency, several pre-requisites for success should be in place. A logical, believable, and realistic proposal. A “win-win” proposal. A receptive public agency. Credible and stable top management. Being a “team player” in your local community. Instilling no fear of “hostile takeovers.” A reputation for providing service that is reliable and of high quality. The available resources to accomplish everything that you propose (p.25).

Because the public utility model and its performance variables are complex, knowledge of and experience in the system
are very important in order for any organization to become a “player.” Stout (1985) writes:

The model is designed to create a highly demanding yet equally desirable business opportunity attractive to qualified firms and frightening or even undesirable to the others. The model is based upon the assumption that no organization has an inherent right to exist or to serve, and desirable business opportunity should be earned initially through competition and as appropriate, periodically thereafter (p.58).

Finally, any change carries with it the potential for conflict. Williams (1995) states:

Differing task demands, differing organizational configurations, and differing organizational cultures of fire and EMS departments make the possibility of conflict inevitable. For managers who are involved in combining fire and EMS services, the development of a strategy for conflict management is necessary to facilitate the amalgamation process and to minimize the negative effects of conflict (p.6).

The third research question for this paper is, “How can the Fort Wayne Fire Department best increase its level of training with regard to first responder medical intervention?”

There are several levels of training for certification in Indiana for firefighters who are cross-trained for EMS. The Fort Wayne Fire Department operates at the basic life support level and as a non-transport provider. Other, higher levels of
certification are available to the department depending on the roles and responsibilities it is willing to assume. These higher levels of certification include Advanced EMT (EMT-A) and Paramedic (EMT-P). The EMT-A status in Indiana is also referred to as Intermediate EMT (EMT-I) by other localities. While EMT-A and EMT-I designations may appear to be of differing status, their certification requirements are virtually the same for the training and field responsibilities of each.

The state of Indiana describes the two highest levels of EMT certification, both EMT-A and EMT-P, as Advanced Life Support (ALS). The *Indiana EMS Statute* (1998) reads:

> Advanced Life Support means care given at the scene of an accident or illness, during transport, or at a hospital by a paramedic or advanced emergency medical technician that is more advanced than that usually rendered by an emergency medical technician and may include, but is not limited to, the following:

(A) Manual defibrillation  
(B) Endotracheal intubation  
(C) Parenteral injection of appropriate medications  
(D) Electrocardiogram interpretation  
(E) Emergency management of trauma and illness  

(p. 33).

Indiana training requirements for EMT status differ with its various levels of certification. In one of their appendices, the IAFF (1999) reports that Indiana requires 145 hours of training in a Department of Transportation and
state-approved course for a Basic Emergency Medical technician (EMT-B) certification. This certification may include defibrillation training as a part of the curriculum. For EMT-A, up to 96 additional hours of training are required in a state-approved course that includes defibrillation, intravenous fluid administration, and drug administration skills. EMT-P requires a DOT/EMS-Commission approved training program consisting of between 980 - 1,500 hours of instruction (appendix A).

If the Fort Wayne Fire Department’s ultimate goal is to improve the survivability of the patient while working within the system, consideration should be given to the level of skill that best complements or enhances the existing public utility model. A cardiac arrest study, published in the *Annals of Emergency Medicine* (Larson et al., 1993), states:

Survival to hospital discharge from out-of-hospital sudden cardiac arrest depends in part on the time to three critical pre-hospital interventions: CPR, defibrillation, and advanced care (e.g., intubation, medication). The shorter that the time interval is between collapse and these three interventions, the higher is the probability of survival. The average time to performance of these critical interventions determines a community’s overall survival rate from sudden cardiac arrest (p.1653).
PROCEDURES

Methodology

Final results for this paper were obtained through a literature review, a firefighter EMS survey, and an EMS response time sample study. In combination, these sources provided answers for the questions asked in this research paper.

The literature review was helpful in answering the first question involving Fort Wayne’s use of the public utility model and how that model has benefited the city.

The second question for this paper asked whether the Fort Wayne Fire Department should engage in or enhance the city’s use of its public utility model. The literature review was useful for this question. Finally, in an attempt to gauge employee interest in potential amalgamation with the city’s public utility model, a firefighter survey was conducted. This voluntary survey was given to members of the department’s Operations Division. Operations District Chiefs were provided sufficient copies of the survey and were directed to offer the survey to all personnel on duty at the various stations and shifts. At the time of the survey, the department’s Operations Division strength was 242 personnel. Of these 242 potential replies, 192 were returned, resulting in a 79% response rate. A copy of the survey and the results are listed as Appendix 1 in this paper.

Once again, the literature review was helpful in answering the third question asked in this paper concerning how the Fort Wayne Fire Department might best increase its level of training
with regard to first responder intervention. Additionally, an EMS response time sample study was employed to assist in answering question number three, the results of which are listed as Appendix 2. This random sampling of EMS run elapsed times was conducted based on all 1999 runs using a random numbers chart. The mean was calculated using the standard approach to construct an interval estimate for a large population (>14,400 runs) where the population standard deviation was not known. Using this standard approach, the margin of error for the study’s sample size of 85 proved to be plus or minus 28 seconds with a 95% confidence factor. Only EMS runs and personal injury accident runs were evaluated. Furthermore, of those EMS runs and personal injury accident runs, only those runs where the unit arrived at the scene were used. A histogram of the sample was also constructed, showing the data to be a fair approximation of a normal distribution, and attesting to its accuracy.

**Limitations**

One procedural limitation for this research paper was the inability to gauge public support for increasing the Fort Wayne Fire Department’s roles with regard to EMS delivery. Obviously, methods exist for this, but time and resources prohibit its inclusion in this paper. Time and resources also limit the ability of this paper to address questions concerning specific methods of implementation for the Fort Wayne Fire Department to use in order to accomplish its goal. The same limitations exist with regard to methods of financing the department’s increased
involvement if a specific plan is formulated.

**Definition of Terms**

ALS – Advanced Life Support.

CPR – Cardiopulmonary resuscitation. The application of external chest compressions to make the heart pump and the use of artificial respiration to facilitate breathing for the victim.


DEFIB – Defibrillation. The use of a controlled electrical shock to restart or normalize heart rhythms.

EMT-A – Advanced Emergency Medical Technician. Sometimes referred to as EMT-I or Intermediate EMT.

EMT-I – Intermediate Emergency Medical Technician. Sometimes referred to as EMT-A.


FWFD – The Fort Wayne Fire Department; Fort Wayne, IN.

IAFF – The International Association of Firefighters. A national union organization affiliated with the AFL-CIO and the CLC.

NFA – The National Fire Academy; Emmitsburg, MD.

Public Utility Model – A comprehensive EMS prehospital care system and management strategy, designed to operate as a public utility.

TRAA – The Three Rivers Ambulance Authority. The governmental and administrative body responsible for providing ALS ambulance
V-FIB – Ventricular Fibrillation. An abnormal, irregular heart rhythm that involves rapid uncoordinated fluttering contractions of the heart. V-FIB is most commonly associated with heart attacks or scarring of the heart muscle from previous heart attacks.

RESULTS

1. How has Fort Wayne’s use of the “public utility model” for ambulance service benefited the city?

The public utility model in Fort Wayne has been user based for many years, but it has not operated entirely without subsidy. While no literature exists on this matter, the Fort Wayne Fire Department has provided first responder services for the model since its inception, and the cost of that service has been hidden or embedded as a “cross subsidy.” The value of this service would become evident if first responder services were to be put to bid along with ALS ambulance service in the bid package.

The literature review indicates that, while TRAA, with assistance from the Fort Wayne Fire Department, has performed rather admirably over the years, outside influences of an adverse nature seem to be looming. Most of the costs for ALS service have been taken off of the tax rolls, but new federal rules may make the model less profitable in the future.

2. Should the Fort Wayne Fire Department engage in, or
enhance the city’s use of its "public utility model?"

It is apparent from the literature review that support from the top is critical for the success of any attempt at increased involvement with regard to EMS. As they are ultimately responsible for the success or failure of the system, the administration and fire department staff should be consulted or advised at every step in the development stage.

Support from line employees is equally critical. Without their support, as the ones who actually make it work, the system is likely to fail. The firefighter EMS survey indicates that the majority of the Fort Wayne Fire Department firefighters and officers support efforts to increase their involvement in the field of prehospital care. Ninety-two percent of both firefighters and officers who responded indicate that they believe the department should operate an advanced life support system. Sixty-two percent of the firefighters who responded indicate that they are willing to change their working conditions to enhance ALS service delivery by the department. A slightly higher number of officers (69%) indicated that they would be willing to do so. The aggregate response for this question was a 64% positive response. Fifty-five percent of the firefighters, but only 28% of the officers, said that they would be interested in attending paramedic school. This resulted in an aggregate positive response of 48%. It should be noted here that paramedic school was not fully defined as to length of time required or the methods of compensation to be delivered by the department, factors that may have tended to decrease the level
of affirmative responses received. After being asked if they believed that the Fort Wayne Fire Department should operate an ambulance transport system, 77% of the firefighters and 75% of the officers responded “yes”, with the aggregate response for this question resulting in a 77% affirmative response. When asked if they were willing to change working conditions to enhance ambulance transport service delivery by the department, 47% of the firefighters responded affirmatively, while 58% of the officers responded in a like manner. This resulted in a 50% affirmative aggregate response to the question.

The literature review also indicates that a system of increased involvement in EMS should be constructed and presented as a “win-win” situation for everyone involved, and should have its basis in logical and realistic planning. In whatever form it eventually takes, the planned system must also provide high quality service to its customers.

Further information culled through literature review indicates that, if a new or modified system has been developed, conflict should be anticipated. Strategies for conflict management should be established to eliminate its potentially negative effect.

3. How can the Fort Wayne Fire Department best increase its level of training with regard to first responder medical intervention?

Research on this question centered on the Fort Wayne Fire Department’s ability to improve the patient’s chances for survival in the prehospital setting while the department is
still working within the current system. While both certification levels are considered ALS, the literature review indicated that EMT-A level training involved approximately 240 hours, with training to the EMT-P level requiring up to one 1,500 hours. Due to this difference in the number of training hours, efficiency and effectiveness need to be examined. For this reason, an EMS response time sample study was undertaken to determine the Fort Wayne Fire Department’s average and fractal response times. Fractal response times are defined as the ability of the department to respond within a given time with 90% assurance. The study indicates that the average response time for the FWFD is four minutes one second, and that the department’s fractal response time is six minutes. The Three Rivers Ambulance Authority Competitive Procurement Documents Request for Credentials/Request for Proposals (1999) requires the contractor to have a fractal response time of eight and one half minutes. The EMS response time study indicates that the Fort Wayne Fire Department has the ability to be at the patient’s side two and one half minutes earlier, with 90% reliability. This represents a 29% improvement with regard to the eight and one half-minute, 90% time required of the contractor.

While the sample study helps to answer the efficiency question by indicating that two and one half minutes can be shaved from the response time clock, the question still remains as to effectiveness. In other words, what impact would two and one half minutes have on a patient in the prehospital setting?
The literature reviewed for the purposes of answering this question centered on the cardiac arrest study (Larson et al., 1993). The study developed a model that illustrates patient survival of cardiac arrest based on time intervals related to critical prehospital treatment. These critical prehospital treatments involved cardiopulmonary resuscitation (CPR), defibrillation (DEFIB), and Advanced Life Support (ALS) interventions. In the study, survival was defined as discharge alive from the hospital, and ALS was recognized as multiple interventions delivered over time. The model was represented as useful in planning and comparing EMS systems and showing how different arrival times within a system affect survival rate.

Over 1,600 patients who had previously suffered cardiac arrest were selected for the study. These patients had underlying heart disease, were in ventricular fibrillation (V-FIB), and had arrested prior to the arrival of EMS personnel. The results of the study were presented in a linear regression model.

One portion of the study described arrival times and survival rates for ALS certified units only, where there is no response by non-ALS first responders. If, in the future, the Fort Wayne Fire Department were certified to ALS status, this portion of the study would apply. It would not matter who arrived first, as both the contractor and the FWFD would be able to administer advanced life care. Under these conditions and at a six-minute ALS fractal response time, the study shows the patient having a 21.1% predicted survival rate. If we compare this with an eight and one half-minute response time required of
the contractor, the predicted survival of the patient is reduced to 7.35%.

The study clearly demonstrates the importance of response time and skill levels as they relate to patient survivability in the prehospital setting. Taking into account the above figures, with the department’s six-minute fractal response time and its possible certification to the ALS level as first responders, the two and one half minute difference is substantial with regard to patient survivability. Given these factors, advancing to the level of EMT-A, which delivers all of the interventions required of ALS in the study, appears to be a very effective and efficient level of training.

**DISCUSSION**

Phase I of the Change Management Model (CMM) requires the user to analyze organizational change requirements and this is accomplished via incremental tasks. Using the CMM is one way to approach the necessary changes that will increase the Fort Wayne Fire Departments involvement during EMS response and can help manage the organizational implications of that change should it occur. Phase I of the Change Management Model “Analysis,” as presented in the National Fire Academy’s Strategic Management of Change course, will be used.

Task 1.1 of the CMM asks the user to identify organizational conditions and to compare those conditions with the existing mission, standards, values, norms, and beliefs.
The Fort Wayne Fire Department has been providing medical first responder services to the community for many years. As a “player” in the system, it has remained a constant on the timeline for prehospital patient care in the community. Support within the department for increased involvement in the prehospital setting is very high as evidenced by the firefighter EMS survey. Ninety-two percent of those surveyed believed that the department should operate an ALS program. Sixty-four percent were willing to change their working conditions to accommodate ALS. Support for ALS was also indicated by a 48% positive response from employees when asked if they were interested in attending paramedic school. The numbers do, however, fall off a bit when ambulance transport is introduced into ALS response. Seventy-seven percent of the respondents agreed that the department should operate an ambulance transport system, but only 50% were willing to change their working conditions to accommodate the system. The results of this poll suggested that firefighters firmly believe the department should operate as ALS certified. The results also indicated that they are somewhat more willing to treat patients than they are to transport them.

While support within the FWFD is high, it is to be expected that a certain number employees will resist changes. As indicated by the United States Fire Administration (1997), increased prehospital medical responsibilities will be seen as a major paradigm shift for some, and it will be necessary to manage this resistance.
Task 1.2 of the CMM asks the user to identify potential destabilizing or restraining forces.

Response time and levels of prehospital care are the primary forces that might act as destabilizers. Without the demonstrated ability to reach the patient’s side before arrival of the ambulance, there would be no argument for increasing the department’s involvement in prehospital patient care. As demonstrated in the EMS response time sample study, the Fort Wayne Fire Department will arrive two and one half minutes sooner than the ambulance contract provider is required to respond. The cardiac arrest study (Larson et al., 1993) clearly indicates that this faster response time will positively affect the patient’s chance for survival. With this faster response time, and the ability to operate at the ALS level, the patient would have a 14% increased chance for survival.

Task 1.3 of the CMM asks the user to assess the impact of organizational conditions and potential destabilizing forces.

Organizational conditions should allow a smooth transition into increased involvement with EMS delivery. However, as suggested by Williams (1995), conflict will be inevitable. Long-term requirements would necessitate strategies for conflict management as the process unfolds, allowing the new system to be incorporated as normative for the department. Near term requirements for organizational change would involve the department training to the ALS certification level. Here, the department needs to determine what certification level within that definition provides the most effective and efficient means
of enhancing the city’s use of the existing public utility model. As previously noted, the best choice appears to be the EMT-A level.

As the last step in Phase I of the CMM, Task 1.4 requires the user to determine organizational change requirements. These organizational change requirements will be addressed in the next (recommendations) section of this paper.

RECOMMENDATIONS

While the city of Fort Wayne has benefited from its use of the public utility model for ambulance service, the system needs to be examined with regard to its potential health and viability. New Medicare reimbursement rules may affect the financial stability of the Three Rivers Ambulance Authority and, as a result, the future contractor for ambulance services. It is recommended that the Three Rivers Ambulance Authority Executive Director perform a forward-looking financial review of the public utility model as a result of Medicare changes. It is further recommended that this review be made available to the citizens of Fort Wayne and Allen County for public debate and comment.

It is recommended that the Fort Wayne Fire Department form an EMS Advisory Committee. As a means of creating a spirit of cooperation and support for its goals, the committee should include members from top positions in the city administration, the fire department staff, and the department’s union. This
committee should be charged with the responsibility of establishing a comprehensive plan to increase the department’s first responder role in the current EMS system, incorporating efficient, effective, reliable, and high quality first responder service as its goal. As a means of accomplishing this goal, it is recommended that the committee make full use of the change management model, incorporating all four phases of the model in their decision-making process. An example of the CMM is attached as Appendix 3 for the committee’s information and use. Recommendations from the committee should be constructed so as to be mutually beneficial to the department and the public utility model under which it will perform.

It is recommended that the advisory committee investigate the level of EMT-A as a cost-effective means of delivering ALS to patients in the prehospital setting. It is also recommended that, if a plan is devised, the committee follow up with a strategy for conflict management to use in implementing the plan.

Readers of this study who are contemplating increasing first responder response roles in their existing EMS systems are encouraged to involve themselves in networking with others on both local and national levels. Readers are encouraged to write journal articles concerning options, methods, and processes for channeling their efforts in this subject area. They are further encouraged to write journal articles concerning public support for this issue and methods of financing efforts to increase their EMS response role.
REFERENCES

Common Council of the City of Fort Wayne (1981). Three Rivers Emergency Medical Services Interlocal Cooperative Agreement - Special Ordinance NO. S-149-81. (Available from the City Clerk’s Office, City County Building, One Main Street, Fort Wayne, IN, 46802)

Common Council of the City of Fort Wayne (1982). Uniform Ambulance Ordinance - General Ordinance NO. G-16-82. (Available from the City Clerk’s Office, City County Building, One Main Street, Fort Wayne, IN, 46802)


Appendices Not Included. Please visit the Learning Resource Center on the Web at http://www.lrc.fema.gov/ to learn how to obtain this report in its entirety through Interlibrary Loan.