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Securing Our Community Through the Emergency Medical Services Sector

Michael Linehan
Pace University

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SECURING OUR COMMUNITY THROUGH THE

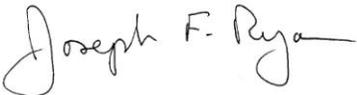EMERGENCY MEDICAL SERVICES SECTOR

BY

MICHAL LINEHAN

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APPROVED BY: *Joseph F. Ryan*

Abstract

Keeping the nation resilient; that is a national able to withstand any threat or catastrophe is a primary goal of the United States Government. Ever since 9-11 our nation has had to face the reality that we can be vulnerable to threats from forces outside our control. We have had to re-examine the threats that we face and how we can better deal with them in the best way possible.

The following project will explore the many facets connected to making a resilient society. My area of expertise within the emergency services management gives me the unique perspective as a first responder.

Putnam County does not have a full time ambulance / fire corp. so it relies on the volunteers and some paid employees to service the county. Reducing response times for ambulances in Putnam County was explored to provide more efficient aid and transport on the scene. There are recommendations for the county in how to achieve this goal.

Leadership is of the utmost important to get the most service out of your staff. A manager who uses the strengths of his people to move the agenda forward is essential. The top-down management style of the past does not work when you are trying to create collaborative with others to reach your goals.

We evaluated the Mahopac Ambulance Corp. and exploring what things that are in place will work and recommendations for future growth. All the while we are cognizant of the Constitutional issues that arise in emergency services area.

As we explored various scenarios that could be perpetrated upon us, we looked for ways to cut time and budget to efficiently garner the best possible. Emergency Medical Services is one

part of the overall plan to keep us safe and to mitigate the losses in any incident. We are

constantly planning, evaluating and adjusting our strategies to achieve the best results. No longer

can we merely look at ourselves as a local entity but we must see ourselves as global citizens

who are affected by incidents that occur worldwide. Partnering with the private and public

sectors will strengthen our approach to implement our mission to provide superior care to our

community stakeholders.

Acknowledgements

I want to express my thanks to all the people who are connected with this Master's Program. I have felt privileged to have been part of the first class at Pace University in this Master's Program.

I have found the collaborative spirit both encouraging and vital to the success of the program. Being able to interact with classmates and learn from them adds a unique aspect of this graduate program. The work has been challenging but with the support of the staff especially Dr. Joseph Ryan I never felt along in the process.

The students were always treated with respect and we felt as we were colleagues with our professors who wanted to get the best out of us.

I feel prepared to enter the field trained in a way that will help me to meet the challenged ahead. It has been a most fulfilling experience and one that I will truly miss. But I know as a Pace alumni I can always reach out for help and guidance as needed.

I could not let these acknowledgments end without a thank you to my family. They have always seen the potential in me even when I could not see it in myself. I will attain this degree as a testament to their steadfast guidance and faith in me.

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Chapter 1

Reducing Response Times for Ambulances

To: Putnam County Executive

From: Michael Linehan

Subject: Recommendations to improve Emergency Medical Response Times for Putnam County

<u>Introduction</u>

Putnam County's Emergency Medical Services (EMS) capabilities do not reflect the County's population and emergency medical services requirements. The County's ever-growing population and commensurate emergency medical service requirements are farther challenged by the heightened homeland security threat environment. In addition, Putnam County's extant EMS enterprise is not capable of an effective response to a mass casualty incident. Putnam County urgently needs to improve its medical emergency capabilities especially its emergency response time capability. Putnam County urgently needs to improve its emergency medical capabilities, especially its emergency response time capability. To that end, this memorandum recommends a complete over hall of the County's extant all volunteer EMS. The County must consider hiring a limited number of paid Emergency Medical Technicians (EMTs) and providing incentives to recruit and retain volunteer EMTs. Also, we need to explore using a combination of volunteers along with paid employees.

This memorandum examines Putnam County's Emergency Medical Services capabilities especially its response time capabilities. A response time is defined as the time from the dispatch

of the call or incident until the unit in this case ambulance arrives on location. The memorandum will provide an overarching strategy that will:

1. Reduce Putnam County's EMS Response Time for all calls for service

2. Establish a more efficient and effective mass casualty response capability

Healthy People 2010 Initiative to Reduce American Emergency Medical Services Response

Healthy People 2010, a broad federal initiative, is to alleviate preventable threats to American's health and to increase the proportion of people who can be reached by EMS within 5 minutes in urban areas and within rural areas. The National Fire Protection Association (NFPA) recommends that, 90% of EMS calls, Basic Life Support (BLS) services should arrive on scene of a medical incident within four minutes. NFPA says Advanced Life Support (ALS) providers arrive within eight minutes for all calls. According to Wilde's study of "Do Emergency Medical Service Response Times Matter for Patient Outcomes", demonstrates that response times significantly affect mortality. On average, a minute increase in response times increases mortality rates by 8% to 17%. Patients who used EMS to be transported to a facility suffering from issues such as abdominal pain or even back pain were also significantly more affected by response times. People with initially longer response times are more likely to be admitted to the emergency department and upon admission are more likely to be classified as a high risk of mortality or of having a severe injury or illness (Wilde, 2-4).

There are two levels of Emergency Medical Services known as Basic Life Support (BLS) and Advanced Life Support (ALS). BLS and ALS are nationally recognized EMS standards. An Emergency Medical Technician – B, who can administer oxygen, epi-pen, oral glucose, aspirin, albuterol, atropine, and activated charcoal, may administer BLS.

ALS may also be administered by an Emergency Medical Technician–P who are trained to administer high order medications and medical interventions to include intravenous and intubations.

Homeland Security Threat

The National Intelligence Estimate: The Terrorist Threat to the United States Homeland concludes that:

The United States Homeland will face persistent and evolving terrorist threat over the next three years. The main threat comes from Islamic terrorists groups and cells, especially al-Qa'ida, driven by their undiminished intent to attack the Homeland and a continued effort by the terrorist groups to adapt and improve their capabilities.

Moreover, The Office of the Director of National Intelligence's Annual Test Assessment of the United States Intelligence Community for the Senate Select Committee on Intelligence "judged" that al-Qaida maintains its intent to attack the Homeland preferable with a large scale operation that would cause mass casualties, harm the United States economy or both.

The Homeland Security goal is to reduce response times so that effective EMS care can be given sooner. If EMS has a sufficient response during an attack or large incident, we will be able to rely on EMS to handle the situation, triage and transport appropriately. Terrorist attacks will certainly impact the Emergency Medical Services, because they will be seen as a large - scale incident. This will require numerous ambulances, and will put those responding at risk as well. Events such as bio-terrorism will impact many victims at once, which will put a severe tax on the emergency medical service system in the area.

Emergency medical services can be divided up into categories. A category is the aided or routine emergency medical call. This can be related to a call where someone is having trouble breathing. Another category is the multiple or large scale events such as the bus accident involving many patients as well as taxing the emergency medical system in the area. The last category is catastrophic events. This can be seen as September 11, 2001 where many lives are lost included the responders.

Status Quo Putnam County Emergency Medical Services

The primary objective of EMS is to provide urgent medical care, in a timely manner to people in need of medical care in a nonhospital/medical center environment to save lives and reduce pain and suffering. In addition, EMS is capable of triaging persons in need of medical care to facilitate the prioritization of medical care to those in most need.

Currently, Putnam County's volunteer EMS staffing is woefully inadequate to cover the call volume. Putnam County's Ambulances include:

Town / Ambulance Company	# of Ambulances
Brewster	2 BLS Volunteer
Carmel	2 BLS Volunteer
Garrison	1 BLS with Paid and Volunteer
Kent	1 BLS Volunteer
Lake Carmel	1 BLS Volunteer
Mahopac	2 BLS Volunteer
Mahopac Falls	2 BLS Volunteer

Patterson	1 BLS Volunteer
Philipstown	1 BLS with Paid and Volunteer
Putnam Lake	1 BLS Volunteer
Putnam Valley	3 BLS Volunteer
Transcare ALS	4 ALS Paid
Transcare BLS	1 BLS Paid

The chart above shows the total number of 22 ambulances within the county, which includes the 3 fly cars for ALS. The fly car is a first response vehicle that does not transport patients.

Rural Health Resources "Sullivan County Rural EMS: An Assessment" related to EMS being an essential part of the health care system determined that EMS volunteers like many across the country, face organizational and recruitment challenges. There is a need to incorporate advances in technology and training and to integrate broader community health efforts. Provisions of appropriate treatment and transportation are of prime importance. Time and resource requirements for recertification particularly ALS level service, strain the volunteer organizations. This has led to the fly car intercept approach by providing ALS in many areas. In this Pennsylvania areas of Lehigh and Northampton, one fly car operated by an independent service and an ambulance staffed by paramedics are available for dispatch. A fly car is a Paramedic's vehicle that does not transport patients. It is usually a type of vehicle that is easier to handle through traffic conditions. It allows the Paramedic to get to the EMS call quicker. Some

companies such as Transcare use Ford Explorers as their fly cars. The possible need to expand

the fly car system requires assessment. They are paid EMS Companies. Billing/reimbursement

issues, varying degrees of acceptance by the volunteers, dispatch and protocols need to be

addressed more closely. Integrated pre hospital BLS and ALS care and hospital ER could be

used by Paramedics as supplementary help in the ER. Studies show improved outcomes when

ALS is available for some patients such as those with sudden cardiac arrests or victims of trauma

like in our bus accident scenario (Rural Health Resources, 3-4)

EMS is part of the public safety sector (dispatch, law enforcement and fire service). In

the future successful EMS providers will need to integrate more fully with public health and

other agencies to make sure patients are referred or transported to the best facility. Care should

not be given in isolation but part of a cohesive system (Rural Health Resources, 5).

Presented here within the scenario of a bus accident will be a total of 100 passengers. The

purpose of this scenario is to take a look at the typical response within Putnam County and see if

it is adequate. This will show that the response is lacking in several areas such as response times

and communications.

Comparative Hypothetical Scenarios

The scenario is an accident involving two large buses carrying 100 passengers that crash

along one of the major roads within the county. The buses wind up off the road down a slight

ditch of 2 feet deep. The weather conditions for the day will be sunny and cool outside. It will

happen on a weekday when there is a lack of available volunteers.

For the current scenario the volunteer agency normally shows up within 15.24 minutes and

the ALS agency arrives within 10.9 minutes according to Transcare EMS call data that was

provided. The dispatcher activates a first responder unit of police and/or firefighters, BLS or

ALS. Even detailed calls reports cannot capture all the information communicated by dispatchers

to ambulance crews. The typical response for an EMS call within the county is local agency,

ALS unit as well as the local PD unit. The dispatcher tells the EMS basic circumstances. Because

driving with lights and sirens can have risks to EMS personnel, the decision to have lights and

sirens to the scene is at the discretion of the Paramedic. When communities instituted a priority

dispatch system response times for more severe calls dramatically decreased, but increased for

less severe calls (Wilde, 11). Within Putnam County, there is a system in place where priority

dispatching using software of Emergency Medical Dispatching (EMD). With that being said, the

bus accident involving 100 people has the average wait time of 10.9 minutes before the first

EMS responder arrives. And then there is an average of 15.24 minutes before the first ambulance

capable of transporting arrives. This can be detrimental to the patient care being delivered. Once

the first arriving ALS and BLS units get there, the process of triage begins according to the

established protocols. Additional resources must be called in. We are going to focus on the EMS

aspect of the scenario even though it does involve the fire department for extrication and spilled

fluids and help with the carrying of patients. The police will be involved to investigate the

accident and interview some of the injured. Having such an event would be classified as a mass

casualty incident (MCI). As defined by the Putnam County MCI plan, an MCI is considered to

be an event resulting in 5 or more patients who will severely tax or exceed the routine EMS

resources of the EMS agencies in whose area it occurs, requiring the mobilization of other

resources to alleviate the initial emergency. This document also gives the instructions on what is

to occur if such an incident happens.

Having volunteer agencies within a county can be beneficial to those who pay the taxes because it keeps the expenses down. However, is the wait for help really worth it? Keeping the taxes down, but having a delay in response is the norm here. In a volunteer organization when someone calls 911, the 911 dispatcher takes the information needed and then dispatches the appropriate agency. Pagers then go off alerting that agency that there is a call requiring EMS. Once the volunteer commits him or herself to the call, they then must drive down to the fire department which can be 1 to 10 or so minutes away from where they are and depending on traffic. Once the crew of at least the EMT and driver have assembled, they then need to drive to the scene, which can be right around the corner or on the district lines, adding minutes to this response. Is this the timely manner we are talking about?

Volunteers, Motivation and Retention

Volunteers are usually passionate about what they are doing and thus may be less bored or fatigued than a paid employee. Even though volunteers are not paid they can cost the organization. After putting many hours of training into a volunteer they may quit without any penalty. Associated costs include background checks and health screenings. What motivates a volunteer is also important. If they are doing this out of a sense of community, they will be involved more in the organization than someone who is doing this as a mandated form of community service. So since volunteers are not there for the money, it is incumbent for the organization to offer other incentives to keep the volunteers interested for the long term to avoid turnover (Handy and Brudney, 7).

According to an interview conducted with Robert Cuomo, the Director of EMS within Putnam County, it can take a BLS unit on average 13 minutes to arrive on the scene. When an

agency has paid staff or a paid agency is involved the average response time for them is under 2 minutes. This is a drastic difference as compared to the volunteer numbers. We know that volunteers are an integral part of the labor force and work alongside paid labor. From an organizational outlook, non-profits usually combine volunteer and paid labor and capital to produce a desired output. Volunteer labor is best used when the benefits of using volunteers are positive and the cost to the volunteers themselves is minimized

Within the past few years, it is shown that there is also a decrease in the number of people joining their local volunteer agency whether is be a fire department or ambulance corp. This is a national problem as well as a local one. According to the National Volunteer Fire Council "People not wanting to make the commitment may cause problems in the coming years. Volunteer fire departments across the country have seen a decrease in the number of people joining, which is especially problematic since the numbers of calls is increasing." It shows that this is a problem all across the board.

According to the article "Do Emergency Medical System Response Times Matter for Health Outcomes" that measured response times by ALS units to see if the minutes mattered, there is a national 8-minute response time that is deemed acceptable. That is not to say that 9 minutes is unacceptable but the majority of units are able to reach the scene in about 8 minutes. The article pointed out that if there is a slight delay to the patient, that there is no significant change in the patient outcome. However, it did show a marked improvement if the unit arrived within 4 minutes. According to the interview conducted with Robert Cuomo it seems that the average ALS response time is just about 10 minutes. So it seems we are not going to be near that

4-minute mark, but good to know we are close to that 8-minute mark which is the "norm" (Cuomo).

An extensive study reported in the article "Paramedic Response Time: Does It Affect Patient Survival" was done in Scotland from 1991 to 1998 to determine the association between ambulance response time and survival from out of hospital cardiopulmonary arrest and to estimate the effect of reducing response times of Scottish Ambulance Services of the 13.822 cardiac arrests attended by ambulance crews within 15 minutes. After adjusting for other variants, shorter response times was significantly associated with increased probability of receiving defibrillation and survival to discharge among those defibrillated. Six percent survived to the hospital, which entails the patient arrived at the emergency department with a pulse. By a response time of 8 minutes increased the survival to 8% and reducing the time to 5 minutes increased survival to 10%-11%. By decreasing the target for response to 90% of calls from 14 minutes to 8 minutes increases survival from 6% to 8%.

The implications of this study are that it has shown the provision of external defibrillators and basic life support training to ambulance crews can improve survival from out of hospital cardiac arrest. The results also suggest that improvements could be achieved by reducing response times. The study estimated that the size of the improvement in survival time might have been attained previously had response times been lower (Pell, Sirel, Marsden, Ford and Cobbe, 1387).

Scenario: Bus Accident

There is a two-bus accident that has occurred during a weekday in the Putnam County. The two buses will collide putting them off the roadway. There are a total of 100 passengers. The

setting for the day is daytime hours, sunny and a cool temperature. There is also broken glass all

over the roadway from the impact. Putnam 911 has dispatched the appropriate first due agency

which includes police, fire department and EMS. EMS includes the ALS and BLS qualified

personnel. According to the information gathered before the first EMS personnel will be the

Paramedic, in a predicted 10.9 minutes. That is 10.9 minutes in which these 100 people are not

being treated or triaged. After the Paramedic arrives, there will be an additional 5 minute gap

until that first BLS ambulance arrives, whose job is to triage and tag patients. There is a request

for mutual aid made by the Incident Commander, which is when the neighboring departments

must come into that area to help cover the call volume. Mutual aid occurs for many different

reasons, one being a high call volume that the area cannot handle so other departments must be

called in to assist. Another reason is that the original department cannot get a crew together to

cover the call so the neighboring departments must cover the call. Once this has been put forth

we must now wait for the additional ambulances arrive on the scene.

The 100 victims of the bus accident that occurred within the county must be all triaged

and taken care of appropriately. The departments in whose district that the incident occurred

responded with the chief arriving on scene, followed by the ALS, fire engines of rescues and

tankers and finally the BLS ambulance. The chief arrived and requested additional fire apparatus

from local departments such as another rescue truck for stabilization of the buses, so they do not

further move or roll. The first ambulance and ALS personnel, started to triage the 100 victims.

They were able to triage all the victims in less than 30 minutes averaging 30 second per patient

triage. The chief requested multiple ambulances to respond. Using the Putnam County average

response time of 15.24 minutes we must now count in the extra travel time of the mutual aid

ambulance which will average at least an additional 5 minutes, putting the first few ambulance at

least 19+ minutes away from ever taking that first patient out of the scene. After triage is done, it

is determined that 60 patients must be transported and 40 will not go to the hospital due to their

injuries being minor. Of the 60 transported patients, 50 of them require spinal immobilization,

and the other 10 refuse treatment. Even though treatment is refused there is still paper work that

is generated. A release form must be signed by the patient as well as a witness, which states that

the patient does not want further treatment, or to be transported to the hospital by ambulance.

This now tells us we need 25 ambulances for those with the spinal injuries and an additional 4

ambulance for other 10 victims. There are a total of approximately 33 ambulances needed for

this incident for proper triage, transport and paperwork for those who are refusing care and

transport. In Putnam County there are only 18 available BLS ambulances to begin with. There

are also only 4 ALS personnel within the county as well. This incident will require all of them to

respond as well. Ambulance will have to transport to the hospital and return to the scene several

times. However, due to lack of training the triage ambulances, chief and coordinators did not

consider the possibility of using another bus whether it is a school bus to transport the non-

critical patients to the hospital. This can free up several ambulances. We cannot take every

ambulance from the county and close mutual aids for this incident, with such an incident we

must think outside the box so we can provide quick, effective and professional patient care. We

can send one or two EMTs with the bus with one ambulance to follow in case a patient took a

turn for the worst. The local police as well as fire police officers are controlling traffic and crowd

control issues.

After Action Critique

Putnam County's current capabilities are woefully inadequate. Empirical evidence

demonstrates that effective and timely medical care will reduce pain and suffering and lower

mortality rates. In this scenario, no one placed a call to Transcare EMS asking if they had any free ambulances in the area. This can be a great resource for such an incident because the company is so large.

This incident is not too far fetched, and can be a reality tomorrow. So it comes down to, will only volunteers be able to handle such an incident with effective, quick response times, quick triage and professional EMS? The quick answer is no, but with a mix department it may be able to run a bit smoother.

The overall communication for the scene was poor. As the chief is calling the dispatchers for extra supplies or ambulances, other trucks are stepping on him by calling out responding, so now the chief must repeat his message and cause further delays. The use of an EMS operations channel was not done. All operations, EMS and fire were done on a secondary channel. But due to the low band radio system we have, not all transmissions were heard or acknowledged. This can be a serious problem, leading to further injuries and poor outcomes.

A solution being offered to help get these response times down, which can help improve patient outcome is that there be paid staff in the volunteer ambulances. Each agency would pay two EMT's to cover the calls. Being able, in house and available to respond on the calls will certainly cut down on the time it takes an ambulance to get out the door. The cost of this can deter many of the departments from doing this. However, when it comes to safety and saving people's lives can we really put a price on it? It costs approximately $70,000/ year to staff an ambulance and this does not include the supplies used on the calls or even the mileage that is driven while transporting the patient. Even though the volunteers may not be paid to staff their

ambulances, these delays in care can impact patient care and may cause loss of lives (Hadzima, 1-3).

Another possible solution is to eliminate volunteer BLS agencies in the county. Unfortunately, that would mean the county must now spend the money to cover the cost of the ambulance calls by having a commercial agency cover all the calls. This would have to add to the existing contract and change the terms of it. Ideally the amount of paramedics and ambulances provided for the current contract would have to at least double in order to provide timely and professional ambulance services.

It all comes down to money. According to the National Association of Auditors, Controllers and Treasurer, we must find out if such a system can be done and if so how much is it going to cost. In New York the average hourly rate for an EMT is 13.28. The annual cost associated with each EMT is approximately $33,984.64 (Hadzima, 2). Emergency Medical Services are funded through a combination of municipal taxes, user fees, private donations, grants and fees. State level regulations oversee local EMS agencies by monitoring EMT and Paramedic training and licensing, but they are not involved in the day-to-day agency operations.

Judith Mausner's "A Study of Volunteer Ambulance Squads" 37 ambulance squads in Pennsylvania were examined because the area is served largely by volunteers. The study looked at training, cost and calls made. The training among the squads varied a lot. Six squads did not demand training beyond the standard level for attendants. Only two squads required EMT preparation. First aid training of drivers was less rigorous. One third had no training in first aid and one half had no special training in first aid for drivers. Retraining, of staff was averaged only about 16 hours. The vehicles were inadequate, some without even air conditioning. A number of

ambulances were not equipped with the BLS equipment. Only one ambulance had items needed

for the light rescue. They found records of calls were sketchy at best and only half of the squads

have a doctor as a formal medical director. The study showed the more money available to better

the squads are equipped. So it is not an equal playing field for volunteer ambulance squads

(Mausner, Benes, Gabrielson, 1062-1065).

During an interview with Robert Cuomo, Director of EMS of Putnam County, he stated

"that the current way the system runs, sadly does not provide care in the timely manner we all

wish for." He sees there is a problem with the current way the system runs and wishes something

could be done. He states that "budget restraints as well as local departments who will rebel

against what needs to be done stand in the way." The reality of the matter can be blinded by

pride. "Pride is what fuels us as volunteers, but with such an increase in call volume and call

response times getting longer and longer, is pride now standing in the way?" Emergency Medical

Services have become more important in the age of terrorism. They are part of the first

responders to a mass casualty incident or WMD scenario. So it is incumbent upon us to devise a

way to make the EMS services within each locality as well as they can be.

One way to do this is to have drills that try to replicate any scenario that could unfold.

Then there must be thorough debriefing where all aspects are analyzed so that we can implement

what works and eliminate what does not. "If lessons become a priority for leaders – especially

local leaders who will be called to manage disasters directly – then lessons learned have a better

chance of becoming a priority for everybody. There must be a commitment from federal

agencies to identify and learn lessons that are relevant to them. As responders put it, "you can fix

all the wagons locally, but if they wheels fall off FEMA's wagon, the system fails (Donahue &

Tuohy, 21).” It is important to train and exercise and sustain a commitment to change long after an event is over. We must try to avoid quick solutions and look for long-term systemic changes. As we saw on 9-11, there must be a clear chain of command on site to set clear and forceful goals for the scene. Egos need to be held in check, so the greater good can prevail.

In Putnam, there is a confusing system for the responding to calls that may not be the most effective. If we develop best practices where we look at what works and evaluate it then we can apply it to the situation. This helps us avoid pitfalls and to get the most payoff from a best practice. There must be safeguards against stresses to our smart practice that can quickly become dumb. We need to test out our practice before we become too optimistic, so that we can know that what we are changing for the better is working. We are looking to become more effective and efficient, so by lowering the response times and responding better to a mass casualty incident will show that the practice we have done is paying off.

Since we cannot predict disasters, natural or man-made we must do our best to make educated guesses as to what could possibly occur. We can be successful if we adapt, plan and improve. “No war plan survives contact with the enemy.” We can reduce our vulnerability by using smarter growth practices. We put the emphasis on partnership and assistance not command and control. Federal Emergency Management Agency (FEMA) seeks to improve community disaster resilience by reducing vulnerability. Resilient communities that adapt will be able to respond to and bounce back from an incident. When local and state planning is poor that seriously undermines our response to disasters. Since federal funds are going more towards preventing a less likely terrorist attack than a natural disaster, states have has to take the initiative

on their own to plan and prepare, mitigate and respond to disasters. We need to prepare for any scenario and practice drills to rid us of our problems (Birkland,423,426).

An issue is keeping up with technology. We need to have and use the latest technology. Terrorists are very adept at using technology. They use the Internet to recruit and to facilitate their activities. So if terrorists groups know where our vulnerabilities are they can mobilize and strike. They have access to the same information that we do. They can see that during the week Putnam is most vulnerable and use that against us. So staffing becomes an issue of preventing terrorism too. When we are vulnerable that is when they see opportunity. The goal of terrorism is to disrupt so if they can use a small county, like Putnam, to launch an attack, it will unnerve everyone. No one will feel safe.

We must learn to pool resources to deflect the cost of running an ambulance squad. In a study by Daberkow "Location and Costs of Ambulances Serving a Rural Area", he thought a location model should be used to determine the most efficient that is, least costly, number and location of ambulances is more rural areas. Having access to medical care in more remote areas can definitely raise costs. Financing can be looked at through local, state and federal avenues and by analyzing local demands. In Putnam, we can examine regionalization whereby we combine districts to spread the cost. We have many small ambulance squads that can be combined. However, this would not be easy as each house has its own hierarchy firmly entrenched. Even though we do offer mutual aid when necessary a more cohesive system is needed to make a smooth transition when needed.

Of course, then we get to the question of keeping a volunteer ambulance corps. We saw after 9-11 that people all rallied around the flag. Everyone wanted to help. Volunteers starting

setting up around the country to help in any way we could. Since then the government has sent a

mixed message telling us how dangerous terrorism is while at the same time not asking us to step

up and volunteer (Flynn, 2).

Volunteers identified training and recognition in the community as the most valuable

benefits to the volunteers, 21% identified reimbursement for school and training, 17%

recognition in the community and 14% squad training and 13% other community support. You

will generally keep your volunteers if they feel their efforts are appreciated (Rural Health

Resources, 12).

NYS Senate is sponsoring a bill (S.6279/A.9829) that would allow members of a

volunteer ambulance squad to audit courses tuition free at a state college. This incentive is

designed to encourage participation in volunteer squads. Other tax abatements and incentives

should be explored (Rural Health Resources, 16).

There is a need for quality feedback for EMS to improve their skills to better treat

patients. As volunteers wane can we count on them to be there when we need them? Costs

dictate services as taxpayers are left with the bill. The use of volunteers seems to be necessary in

areas with low population density and infrequent need for an ambulance funding. Funding must

be explored from different avenues including getting money from grants. To fully understand

what is needed analysis impact on the local community must be stressed. You cannot plan for

services without looking at the impact on the people who will shoulder the burden of

implementation.

Looking at communication on the scene among different agencies is very important. If groups cannot communicate then valuable time on the scene is wasted. New York State has initiatives and priorities that have been noted. They saw a need to setup a statewide communication system that links local county and state law enforcement, fire personnel, EMT's and all other first responders on a secure dedicated frequency. There must be adequate equipping and training for first responders. Establishing a funding a Bio Safety Level 3 and 4 (BSL 3,4) human health facilities within the state, capable of testing for infectious biological outbreaks and emerging diseases. There is a proposal for designation of critical utilities, transportation and communication infrastructure as "National Security Sensitive," enabling the sharing of crucial vulnerability and risk information between private and public stakeholders and government without risk of public disclosure.

There are impediments to Homeland Security success. There needs to be more collaboration, information sharing, threat recognition, risk management and intervention. We need to concentrate more on prevention and improve the systems already in place. However, in making systemic changes people always have a fear of new behaviors. People do what they know best which is responding and not too much on prevention where they do not feel as comfortable. We have great disaster response systems but lack in prevention. A cost effective way to stay on the road to prevention is to collaborate. This really constitutes a change in attitude. It is more sociological than technological. This new enemy's motives are to disrupt life as we know it so it will take leaders who think outside the box to fight this new war (Bellavita, 3-5).

So even at the local level we are challenged to think of new ways to attack problems. Keeping in mind those in local areas there more soft targets for terrorism. So an incident that can at first appear to just be a car or bus accident could be more. It is through this new prism that we must look at each situation. We need to have plans that can be fluid and change as the crisis evolves. First responders are on the scene as it transpires, so there must be adequate drills and debriefings to keep us up to date. The enemy of the 21st Century is ever clever and quick to adapt to new situations. To keep up with terrorists we must be more clever and adaptable or they will outsmart us.

In areas like Putnam, it seems that some mix of volunteer along with paid EMS care will work better than either just volunteer or paid staffing alone. Analysis of the cost on the taxpayer with a completely paid staff could be prohibitive. Putnam is currently in a contract that cannot be voided, when the terms are up for negotiation, the possibilities of more paid staff will be mentioned. Since the contract is set to expire in 2015, negioations must begin earlier than ever if there is going to be an overhaul of the current system. In order to have a system, which keeps volunteers, volunteers must have a bigger reason to join than ever.

Recommendations

Recommendation # 1 – Putnam County EMS should establish a comprehensive mass casualty response plan

Recommendation # 2 – Putnam County Public Safety Agencies should establish an interoperability (I.O.) capability to facilitate interagency communications

Recommendation # 3 – Putnam County should amend its Mutual Aid Agreements to facilitate mass-casualty responses

Recommendation # 4 – Putnam County should conduct more frequent intra and interagency drills to facilitate mass-casualty responses

Recommendation # 5 – Putnam County EMS should establish an enhanced ALS Capability via a hybrid volunteer-paid system

Recommendation # 6 – Putnam County should offer tax incentives to volunteer EMS: 20 percent reduction in property tax

Recommendation # 6a – Putnam County should stipulate each EMS member with a $300.00 fuel stipend annually

Recommendation # 6b – Putnam County discounted housing to EMS personnel that reside within the county

Recommendation # 7 – Putnam County should supplement its volunteer staff with a paid staff that would assume certain function such as covering the first due ambulance calls within the districts.

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Chapter 2

Management Reflections

In the 1900's the American workforce began to move from farms to small towns and ever growing cities. The farm workers came with very strong beliefs and brought there values to their new jobs. They had what has been referred to as the Protestant work ethic. These beliefs included the thought that work itself was rewarding and rewarded by God and others and that the business owners were chosen by God for their wisdom and their orders should be followed without question. The roles of the boss and workers within the workplace were clear. Management was to provide all control and direction and the role of the worker was to follow the directions without question. Managers performed all the jobs due to their position and superior intelligence. All workers who had similar intelligence were given simple jobs. Since, all were equally productive; they could be easily replaced by other employees. Some managers today might yearn for the good ole days.

The first change in management was known as scientific management where work, people and how work can be accomplished is analyzed. Frederick W. Taylor was known as the "father of scientific management." He also wanted to study every motion required for each task and the most efficient way to make workers productive. Workers were looked at as being primarily motivated by money so financial incentives were offered to them. Taylor set standards for a task and when workers exceeded those standards they were compensated. This was a piece – rate system which paid according to productivity and not to just a one size fits all approach. This led to jobs that were highly specialized and routine. Managers made all decisions. In the 1920's and 1930's managers moved to a human relation approach to management. Workers were

now seen as people, people who were affected by their surroundings. Studies showed that

workers were complex and managers should get to know their workers. They should be part of

the decision making process in the workplace and satisfied workers are productive. Individuals

were valued and these employees were affected by social and psychological factors. But because

the need for production and quality standards were overlooked, this approach failed to tie

organizational objectives to employee objectives. In the post World War II era, the approach of

management was there was not only one way that worked for managers in all situations. They

needed to analyze each situation and decide on which approach would work best. This method

relied on the manager's ability to analyze and choose the best solution to the problem. This

approach changed in the 1970's to the theory that employees were resources rather than just

factors of production. They were seen as valuable long – term to the company. Managers had to

create an atmosohere whereby both the management and the employee goals could be met. Then,

in the 1990's came the term, New Agenda as coined by James R. Houghton, CEO of Corning

Inc. It focused on how fast technology was changing in the workplace, the diversification of the

workplace and the globalization of the economy causing changes in management. Managers saw

a need to balance work and life, to empower your staff, to pay fairly and have quality. At the

same time there needed to be attention to a workforce who was changing with more women and

minorities. So managers had to adapt to these changes   (Carrell, Jennings, Heavrin).

So today's managers must take from the past management styles, the style that is most

productive today. Today's worker is one who wants to partner with others and be a part of a

team. Styles have changed over the years but when workers are valued and respected then

productivity increases. In the field of Homeland Security we need employees who challenge

themselves and are capable of being creative and innovative in order to adapt to changes as they

occur. The one size fits all approach will not work.

From a management perspective, I feel I am in a somewhat unique situation. I was the

youngest person to be made Lieutenant of the Mahopac Volunteer Fire Department EMS

Company and subsequently elected to Captain. Since I am younger than most of the members, I

approach my leadership from the perspective that we are a team. If a member does something

that requires correction, I always start with a positive. I point out what went right and then talk

about how to improve. I never reprimand in front of other people either. When people are

corrected in front of others, they feel humiliated and can become very hostile and this

exacerbates the situation. When you make things less public people can process better what you

are saying. I never want to put myself in the position of being arrogant but in a decisive, calm

manner, I can achieve my goal of rectifying the problem. Since this is a volunteer organization

there is no firing as such. It usually is a case of pointing out to someone that may not be a good

fit. Even after people put in the training time they are not always prepared for the job whether it

be emotionally or intellectually. Then it becomes incumbent upon me to steer them in another

direction. As a manager it is essential that I clarify my goals so that there will be no question

about where we are headed. I think it all begins with communication both verbal and non-verbal.

From the moment you meet your staff you are sending out signals about how you conduct

yourself. When you appear confident, goal oriented and approachable you have already set a tone

whereby people will take your cue. You begin to establish mutual respect. To do this we must

first know our self. Your own characteristics affect your ability to perceive others. Perception of

others and their feeling will help navigate the managerial road. We must also be a good listener.

We may hear but do we listen? Your employees must feel that when they speak, you are actually listening to them. If they do not they will feel undervalued.

Once you have established a safe working environment where people and their opinions are valued, it becomes easier to deal with disciplinary issues. If an issue does arise you should tell the employee beforehand, so they are not caught off guard. I think you should be clear and specific in what rule has been violated. You can make them more stakeholders if they are part of devising rules in the workplace. But it still must be clear that you are the manager. Getting feedback from employees is important to keep the lines of communication open. When you have set up these methods, if you have to resolve a conflict or discipline an employee everyone will know what is expected and where it broke down. No matter how much you feel that the discipline is fair, people will not always agree and can get angry. If this happens we as managers must keep our "cool" and see if we can let the person realize what they have done wrong. You need to document so you can be specific. If you just say you are not doing a good job, what does that mean? That is not to say, you have piles of data accumulated before you speak privately to the employee. At the first sign of a problem. I think it is better to have a casual meeting to re-establish goals so they are clear.

I have seen in the ambulance corp. that when I have to tell someone about something that was not done properly, I first approach it as colleague to colleague. When people see that the "team" has been impacted by their actions, they are more likely to take ownership of their actions and look at it in a rational manner. When you approach an employee with I'm in charge and you are not, it never goes well. Your role as manager should be to lead in a manner of trust and respect. If you are constantly reasserting yourself you have not been honest with yourself

and your own attributes. Our goals should be to bring our employees to a level of self-actualization whereby they feel empowered to do a good job. We as managers must be active listeners who keep communication lines open. People need to know they are valued. So your employees should not only hear from you if something is not right. They need to get positive feedback first so they can better process the strategies you have laid out for a positive work environment. It definitely is not easy or pleasant to have to discipline employees, but if we are fair and reasonable, they will be more accepting of the consequences.

As Plato shows in his allegory when people come into the "light" and out of the "shadows," they do not always go willingly. They have been taught to accept the "shadows" as real and even when it is pointed out to them that they are not real, they resist. Government is slow to change to come into a kind of enlightenment that may shake the foundations they believe but if we team up with an entrepreneurial spirit we can effectively run our government. This is our challenge going forward in the 21st Century. As is relates to the security of our country, as tomorrows leaders, we must strive to incorporate past practices that have worked but also see ourselves as entrepreneurs who will look at problems programmatically and not as beaureucrats who cannot "think outside the box." This new generation of leaders are cognizant of the past but also mindful that we must approach the future with an open mind. When we problem solve cooperatively, we get the most out of all who participate in the process.

The Mahopac Volunteer Fire Department was established in 1914 and the first Chief of the department was George Long. Since then the department has grown to include 3 stations which house a total of 13 pieces of apparatus. Today we have one chief with two assistants. The department is divided into 5 companies, including EMS Company. Each company has a

lieutenant and captain. The call volume translates to basically two thirds of EMS calls and one

third of fire calls with a volume of approximately 1200 calls per year and increasing. We are

always looking for ways to attract volunteers. Sometimes we have people start out enthuastically,

but they cannot always sustain the commitment. It becomes a money issue too from our

perspective. We have invested in the training of this individual but we cannot always reap the

benefits of their services. The department is always looking at ways to offer incentives to people

so they have a greater reason to stay in the department. There have been many ideas that we have

discussed including real estate tax abatements, help with college tuition costs and pensions. We

have awards that are given out yearly to honor those who give above and beyond to the

department. When people feel valued they give more readily of their time, time that is taken

away from their family and obligations. When you are an organization that cannot offer

monetary incentives, we need to be creative to attract members. Reports have stated that

volunteer EMS is essential to the health care system. However, there are recruitment problems

(Rural Health Resources). Within the past few years there has been a decrease in the people

joining volunteer agencies. This is a national and not just a local problem. Even though the call

volumes are increasing, attracting personnel is decreasing, according to the National Volunteer

Fire Council.

I must continue to motivate people once they become part of the group.

Maslow's hierarchy of needs crosses five levels. Physiological needs are food, shelter, and

clothing which a good compensation can meet. Security needs can be translated into employees

feeling that they have job security. Social needs are met by relationships with peers and others.

Self-esteem comes from status within the organzation and ultimately a self-actualized life is the

ultimate goal within the work place and without. Having a highly motivated worker is the result

of how a manager reaches the needs of the workers. When people feel valued by monetary

compensation as well as for their input, you will have a worker who will go that extra mile for

you. It is obvious that money alone cannot motivate staff. Even if you are well paid, if you do not

feel valued then you are less motivated to excel. People perform better when they know they can

be flexible in their work schedule if need be. The more the employee is involved and empowered

the more motivated they will be.

Most of this seems obvious. If we pay fairly, have a good work environment, value

employees, you will have workers who are motivated to excel. As managers, it is our charge to

get the most of out of our workers by using the tools we have, so our workers become self

actualized and subsequently more productive. Workers will advance and be rewarded for their

efforts when we partner with employees to set goals. The employees are more likely to reach

those goals because they have been involved in setting them. Employees also need feedback but

this feedback must be such that helps the employee grow and thus increase motivation.

The main problem with money as a motivator is that, where will the motivation stop or

cap off. It is only a matter of time and probably a short time that the stipend offered would no

longer be good enough, so you now must offer a higher stipend. At what point does it stop? It is

very easy but also very difficult to use money as a motivator.

As an EMT Captain, I am in charge of volunteers. So money is not a motivation. People

come to the ambulance corp or local fire department voluntarily because they seek to help their

community. They want to help their community and serve others. It is incumbent upon me to

keep the volunteers invested in the total picture. They must see that they are valued and their

input is always needed. Rewards are gotten in the form of status or awards to call attentions to their extra efforts. Collaboratively goals are set, expectations are told and results are analyzed. We are constantly trying to attract new members and out reputation as a place that values its members help us in that effort. Reaching self-actualization even in the volunteer realm can and often does transfer to other facets of one's life. As a manager I must always assess and reassess how to get people to be motivated so we will all benefit within and without of the work place.

To foster self-actualizing behavior in the workplace actually starts with recruitment and hiring. We need to look for self-starters who will use external factors as reinforcement. This reinforcement principle provides positive reinforcement to desirable behaviors. Reinforcement at all levels of motivation can be applied through an incentive system. First, you must communicate clearly what rewards will result from what behaviors. Employees know the rewards are available and are tied to achievements. Once the employee sees that there are valuable results for their efforts, they need to see how to accomplish this. Then we need to show the employee how to reach the desired goal. You must be up front with your employees and when they achieve a goal there must be the promised reward. If we are not true to our word we risk having a loyal staff.

The rewards to the organization will be clear. There will be a reduction in tardiness, absenteeism and poor participation. People will definitely feel more invested in the company and therefore will work even harder for you. As we rise in the ranks of management, our own job satisfaction is more closely linked to the accomplishments of your team. Your satisfaction must be more self-actualized and long range. Your staff's accomplishments will reflect upon you (Carrell, Jennings, Heavrin).

Managers must create partnerships to allow people to become stakeholders in the

organization. That is not to say that we want to stifle competition but find ways to use both

competition and cooperation to get the results we want. What kind of manager do we see our

selves being? We must be open to try new models even when innovation isn't looked upon

favorably. This seems to go against the structured model of government agencies with steadfast

rules and hierarchy. Moving forward into the 21st century it is incumbent upon us to use new

tools such as imagination and innovation in our leadership style. A transformational leader will

elicit more loyalty if he is seen as someone with a vision and not just with a set of tasks to be

done in isolation of each other. A transformational leader gets people to transcend themselves for

the good of the organization. That is how I hope to lead. People will see we are in this together

and will problem solve for the greater good. I do not see myself as an autocratic leader who

maintains complete authority and does not involve others in the decision making processes

(Carrell, Jennings, Heavrin). If you can keep your employees satisfied and vested in the company

you can have better attendance and fewer turnovers. When we generate a positive attitude, we

keep employees happy and thus reduce dissonance in the workplace. We also need to hone in on

people's strengths. When we understand what our employees are we can better use their

strengths. When I see someone with strong verbal skills, I might assign them to talk to a family

at the scene of an incident or if they are better with written skills, they could write up the incident

reports. When you really know your staff then you can better assign them to where they could do

the most good. Using the Myers- Briggs Type Indicator can help too. If employees see things

differently from their boss they could clash. Research has shown the importance between

personality dimensions and job performance. People are introverts or extroverts, sensing or

intuitive, thinking or feeling, and perceiving or judging. People are classified into different

categories and styles. Each cognitive style has characteristics ascribed to it. When we know what style people are, we can see how they can best serve our organization. People are either fact oriented or look at the possibilities. They can be impersonal or warm, practical or logical or sympathetic or technical or theoretical. All these tools help us assess our personnel. Also Emotional Intelligence is important for job performance. When we couple personality with the right job we can attain job satisfaction and there will be a lower turnover rate. We can use these tools to match employees to jobs (Robbins, DeCenzo).

Part of this leadership style is to be a meta-leader. That is someone who will chart new courses to link organizations and people while encouraging people to go beyond their scope of interest to connect disparate groups. In the field of EMS it is essential to grasp a situation, communicate with others and act upon the vulnerability we face. We need to motivate others to see that preparedness is a matter of survival on all levels whether local, city, state and federal. We need to see the value or working across agencies whether we are encouraged as leaders to do so or not. When it comes to terrorism, it is not an academic exercise but rather reality. When we do drills with different scenarios, whether a haz-mat incident or any other situation we must think like a terrorist. We must encourage our staff to see the cross-organizational linkages (Marcus, Darn, Henderson).

A tool that has proven valuable to public management is networks. This can be challenging because networks consist of managing tasks that can conflict. They are helpful in that they work horizontally and vertically, where strengths are integrated with the public, nonprofit and for profit organizations to solve problems. When we collaborate in this way major inroad can be made where prior to this there had been none. Even though they are a helpful tool

to managers, they can be difficult to form and even more difficult to sustain. The success or failure of networks we established has a large part to do with our management. When we set up accountability and commitment, people will feel they are able to cross lines and achieve more (Milwood, Provan).

The question of where the Department of Homeland Security fits in the hierarchy of government is perhaps not as important to us as how to make it a more streamlined, forward looking, visionary agency. We spend a lot of money on anti-terrorist scenarios. However, the chances are greater for natural disasters such as Katrina. We saw how poorly FEMA acted because of lack of intergovernmental cooperation. When we have agencies operate in isolation we can see this will be ineffective. Leaders must look to reform FEMA to build community resilience. Here again when we encourage and emphasize partnerships that reduces our vulnerability. The very fact that agencies talk to each other and share information will cause less disparate approach to problems whether from terrorists or nature. We know that future disasters will cost more so it is our job to set up systems that share information, mitigate and respond to a crisis so that individual states and local governments can be supported. Failing to plan is planning to fail.

How do we improve our leadership? We cannot be stagnant and not adapt our style to the ever-changing atmospheres in which we lead. We need to get feedback from people even anonymously to see what is really going on. Our leadership depends on how we influence others. People need to feel you are empathetic and listen to what they have to say. We can also use these social and emotional intelligence cues when we hire people. If we see that someone may not be able to think clearly under pressure they may not be suited for the professional of EMS. Who we

hire affects the organization at all levels. People respond to a manager who is fair-minded and respects interactions between management and employees. EMS is very much a team sport. However, it is critical that everyone knows who is in charge so that decisions can be made in a timely manner (Daniel Goleman). Leaders are not just born; they are created through their environment. Before we can lead anyone we must know ourselves and how we react during a crisis. We need to know that we do not lead in isolation and we are accountable to others both above and below us. When you build other's confidence, hope, and understanding, you give people the skills to mobilize people and organizations in time of crisis (Five Dimensions of Meta Leadership)

In my capacity as Captain of EMS Company it is incumbent upon me to have a plan of action in place when we arrive on a scene. We drill to prepare for scenarios that may come into our county. However, there are always things that arise that are not foreseen. Does that mean that we go in without a structure of action? No, as Atul Gawande's book, Checklist Manifesto – How To Get Things Right, says it is important to have simple checklists in place to make sure that no steps are missed. There are errors of ignorance which are mistakes we make because we do not know enough and errors of ineptitude mistake we make because we do not use what we know. In the ambulance there are certain guidelines that must be done whenever we take a call. If we fail to ask a certain question, mention allergies, there could be deadly results. So even in a crisis situation, there are uses for a checklist. People who have been on many calls can tend to become "sloppy" because they have done this so many times. But when we follow procedures we can be sure that all the steps have been followed. As the author states, "there is too much for the human to remember" so a list is helpful. After an incident we can collaboratively look at what happened

and if need be, adjust the list. Things must always be fluid since no two situations are ever the same and therefore we must ever expand our views so we become better at what we do.

      Pertaining to the incident created by a two bus crash disaster for the Homeland Security Term Paper, there will have to be someone that is going to have to manage such a chaotic scene. The scene is that there is a two bus accident, injuring 100 people. The chief of the departments whose district it is in is ultimately responsible for the overall function of the scene. There can be other "managers" involved such as Putnam County Coordinators that can help coordinate where the ambulances are coming from and where they are transporting too. The national system of NIMS (National Incident Management System) is going to be used to help manage this scene. The main function of this system is to provide an agenda to allow a more fluid rescue. There are several different levels or courses offered but they all have the same foundation. Within the NIMS style, there is be another structure known as ICS (Incident Command Structure). This is the standardization of all incidents, so that there is now a common management theme no matter where or what the incident. This allows for the incorporation of facilities, equipment, procedures and communication. The main theme is a common process for planning and managing. In order to command or manage such a scene the incident commander must now appoint other officials to help with communication and ensure what needs to be done is being done. For example there is going to need to be someone in charge of fire operations, rescue operations, ems operations, police operations, etc. Once these individuals are established, this will allow the incident commander (IC) to better focus on what other resources are needed at the scene. Those in charge of the operations must filter the information they are being given and relay the important or urgent messages to the IC.

From the beginning of the scenario, when the first 911 call is placed, and they dispatch the appropriate agency and notify them of any updates that may be called in from the scene, that first person on the scene is to manage the scene until someone can relieve them. The manager must filter through all the information being given to them while on the way to the scene of the accident. Since the report is on 100 patients, the IC, must now consider how many ambulances, fire trucks, and rescue trucks will be needed in order to have an effective, professional, and quick treatment, and triage process. It is important for the IC to always be somewhat "removed" from the scene, as to not allow so many emotions be involved in the scene. Communication is going to be key for this scene. So it is important that the IC establish what channels will be designated for certain tasks, such as the county has 3 fire ground channels, which are not used normally. In such a case, the IC should determine that EMS have a channel, such a channel 2, extrication have channel 3 and fire operations have channel 4, to talk to the 911 dispatchers would be on channel 5 and to allow 911 to dispatch the needed equiptment would be on channel 1. It is important for this radio communication procedure to be put in place early, so there is a lack of confusion. In order to make a good manager or IC of such an incident, simple things such as radio communication, channel designation, vehicle placements, and the amount of resources required will need to be determined early. An effective leader will make a decision and keep evaluating the scene. Also the IC must keep checking in with his managers, those appointed to transport, triage, fire, extrication, police, etc to make sure everything is going as well as it can, and if it is not, then what can be done to make it better. During this incident patient number or counts must be constantly updated to the IC, in order to ensure the appropriate number of ambulances or buses are there or on the way.

After the incident, a debriefing should occur to allow those who were involved to express what they found good and bad about the scene. This is a good time to allow for brainstorming to allow a better outcome and response for the next incident that may occur. One of the major topics at hand would be the response times for the area. According to the Putnam County Bureau of Emergency Services, the first ALS (advanced life support) personnel would be there within 10.9 minutes and the first BLS ambulance would be there in 14.2 minutes, but we must keep in mind that, the first ambulance there is not going to transport anymore but it will be there for all the equiptment it carries and to triage all the patients involved in the incident. This discussion can lead into a very heated debate of whether the volunteers are able to handle such an incident, from the amount of time it takes to get to the scene to proper staffing of the ambulances and fire trucks going. This is going to be a very touchy subject, but once the numbers show that patient care and outcome may have been affected by the length of time it took ambulances to get there, maybe a solution will be a possible a mix of paid and volunteer within the departments. In order for the manager to be effective, he or she must be able to listen. They must know and acknowledge that there is a problem with the length of time it takes an ambulance to get to the scene of an incident. With that being said it is now up to the manager to brainstorm and talk with the employees to see what strategies can be implemented in order to get the ambulance to the scene quicker. The manager must be able to filter the ideas that can become a reality and those that cannot Unfortunetly, it all comes down to money, so if there is a lack of funds, then there will still be a lack of care. If during a trial period, nothing has improved the response times, then it is back to the drawing board, but the manager must now realize, a more aggressive approach must be taken in order to solve this ever growing issue.

During a crisis such as the bus accident scenario, communication is very important. Sometimes in a crisis, managers are quick to step up and take responsibility for flaws in management. This may not be the appropriate thing to do. During a crisis it is best to take a step back and assess what should be said. Using an SCCT (situational crisis communication theory) can offer your organization protection during a crisis because it can protect the company's reputational damage, the more the crisis response strategy must try to accommodate victims. The SCCT gives managers guidelines for understanding which response to use. This relates to Homeland Security during a crisis because people want and need to know what is going on. We need to keep the lines of communication open so that people will be informed. In the case of the bus accident, it is imperative to let the public know if certain roads need to be closed, or if traffic will be rerouted. We also need to deal with toxic emissions that could have occurred because of the accident. We need to have a coordinated strategy for the situation.

So as managers we must always remain focused on keeping the reputation of our agency above reproach. Using SCCT during a crisis can help structure our response. What and how we say things is most important. This does not mean that we do not analyze our strategy after the event. Immediately following the identification of a crisis we must speak clearly and strongly to allay people's fears. But we must be honest with the public. Once they suspect you are lying they will not be willing to overlook this. Protecting your organization's reputation must come from honest motives and not just to keep your organization untainted. People are usually more forgiving of a misstep than they are a cover up. So knowing what to say and how to say it is an important part of an organization's communication strategy (Coombs, Holladay).

In the field of EMS every day we are called upon to react to new situations. When a call comes in, we do not know what we will face when we get to the scene. Situations can escalate very quickly and something that might have been called into 911 as a somewhat minor occurrence can quickly rise into something else. Therefore it is of the upmost importance to have multiple plans that could takeover. A car accident with multiple injuries can also become a gas spill which could possibly involve the EPA. I am always looking at scenarios and how to improve outcomes.

Again because we are volunteers, I do not have the luxury of hand picking a team but rather to work with whoever answers the call. During the week days we are very understaffed, so it may not always be the ideal group, but I have learned through the years that most people will rise to the occasion. I am a quiet leader, but firm and even though I am young, I have garnered respect from my peers by being decisive on the scene. I go into a situation with a plan in place but I am always cognizant of the fact that as things change so must the plan. If I am previously assigned one person to an area but then I see that they would be better somewhere else, my crew trusts me enough to go along with the change.

Prior to any call, we must always use a checklist to make sure all the items we need are there. This is referred to as Part 800 by NYS DOH. There would be nothing worse than getting to a scene with multiple victims and to be short supplies. We in fact, use a checklist not unlike the checklist manifesto that we read about. This definitely helps to let us stay prepared and not miss any important items. Sometimes people think this is not needed and repetitive, but when people become too comfortable that is when mistakes occur.

Responders must gather as much information as possible on the way to a scene. A checklist can be used to help determine initial actions that should be developed and made available to all EMS personnel such as the type and nature of the incident, if chemical agents are involved and if so the name if known, the number and ages of victims, sign and symptoms of the patients, injuries, materials being carried, routes of exposure and the length of exposures. Getting as much information on way to a scene can aid in relaying to a pre-designated resource center for care procedures. Communications with other agencies should also be initiated while en route to the event scene. Communication should be established with local fire and police departments, and with the hazmat team.

When first responders arrive on scene of a hazmat incident, they are used to searching for dangerous items while tending to the victim. Before one enters a scene, we must ensure the scene is safe. However, in a contaminated area, they run the risk of being a victim too. Rescue should only be attempted by trained people. There should be a notification made to all local authorities.

In these cases, the top priority of first responders is scene isolation. They need to establish an exclusion or hot zone and keep people away.

During such a crisis qualified EMS may be asked to assume any of the following roles of safety officers, EMS section, or treatment officer. EMS will also provide medical surveillance for the hazmat team.

The EMS is to stop patient exposures, stabilize patients and remove patients. Priority should be given to the fundamentals of emergency treatments of airway, breathing and

circulation, referring to the ABC's of a patient. In order to safely transport patients they must have undergone some sort of decontamination.

As discussed in SCCT it is imperative to let the public know what has and is going on. They should know what dangers remain to the public, if any, and how to keep themselves safe.

After such an incident there should be a debriefing as soon as possible. This should be done when events are still clear in the responder's mind. The purpose of review is to examine what worked and what did not work and to evaluate the overall coordination of the effort so improvement could be made if necessary. The results should be shared across all agencies involved. Problems should be noted and training should be offered to rectify issues that have been identified. Attention should be paid to the EMS's mental health as well. Sometimes after a large scale incident with many victims, the first responders may have a difficult time processing what has happened. There must be follow up with those people who have exhibited stress to make sure they are better able to return to the line of duty (Cashman)

EMS has long struggled to be an integral part of the emerging response teams which people think mainly as police and fire. But in this age of terrorism, EMS has established itself on the front lines. We have participated in drills, along with the fire departments and police to replicate scenarios that could include hazmat issues, to mass casualty. We have crossed county lines to partner with surrounding jurisdictions to make a cohesive plan of action for incidents that would need other squads to respond to.

We have also had to partner with the Coast Guard since there are many lakes in the county and parts of the county are near the Hudson River. During the summer months people

enjoy the lakes in the county. Sometimes they become sick while out on a boat or personal watercraft and need to be rescued. There are also times when people may have had too much to drink or not and accidents on the water occur. In these cases, we may partner with the Coast Guard to be there to administer aid, triage, and transport to local hospitals. When you are in a scenario with other agencies it can hurt the lines of communication. The lead agency must be established and the proper protocols need to be adhered to.

As a manager in today's global society, especially in the field of Homeland Security, we need to be leaders who collaborate, confer and strategize with many different partners. We start out with a clear vision of where we want our organization to go. We then lay out a plan of action and delegate responsibilities and a timetable. Next we organize people in the most productive way we can. Sometimes individuals perform tasks alone while at other times a "group think" is appropriate. Staff needs to see that we are the leader but not in an autocratic way but rather as the one who will ultimately lead to people becoming a cohesive team. We need to control our organization while not being seen as controlling.

It is very important that we know our staff and that we see their strengths and weaknesses and work with them. In a volunteer organization, such as a Fire Department or Ambulance Corp. it is essential to make sure people have time for family and for their commitment. If we cannot accommodate them they will not stay. It is also necessary to train people properly so they will feel equipped when they are put into any situation even ones they are not familiar with. As a leader for tomorrow, I think it is important to look at what has worked for other companies and see how this could fit into ours. By seeing what others do best, we can see how this could transcend to our needs. To really improve performance and productivity it is necessary to look at

other sectors and use their ideas. They can be a starting off point for what can work and this can

in turn improve our company. As Jack Welch former CEO of G.E. said this is "boundaryless

thinking." This is where we remove impediments to find and implement what works best

wherever possible. People are encouraged to share ideas within and without the company. People

might be reluctant to give another company what might be perceived as the competitor's edge.

But when we partner for common needs such as marketing and other internal functions we can

create a single process and find the best practice. In EMS, if another company had found a more

efficient way to dispatch to a scene or to attend to patients on the scene better, t is for the public

good that we share this information. As we have seen even in the intelligence community when

information is not shared there can distarous results. No longer can agencies work in isolation

but rather become partners. When we check our "egos" at the door greater things can be

accomplished. It is difficult for people to see that sharing will not hurt them but rather help

everyone. When we see ourselves as part of a greater community than just our own can truly

accomplish great things.

The challenge here is to change the mindset previously held be people. But if we have

created a safe environment for new ideas then your staff will be willing to change. We have

seminars with other squads for the purpose of sharing ideas. At first people do not come forth as

readily as we might like but when they realize that what is good for one benefits all, they are

must more forthcoming. I have seen that people who are not as set in their ways are much more

willing to collaborate than those who have a set way of doing things.

In this techo-savy world, we must keep apprised of the latest innovations that will help

our company progress. If we are not up to date then, we will fall behind. The world has been

changing faster than ever and we must keep up with it. To do less would be at the detriment of

our company.

One of the biggest management styles that is faced within the Fire Services is the

mentality of "it worked that way 20 years ago, so it must still be good" or "that is how I learned

when I joined, so that is how it must be now." These mentalities can no longer work for this era.

There are many reasons for this because people demand more respect now especially in a

volunteer organization. People are dedicating their time and life to a volunteer organization, so

why make it more difficult on them. We should be making it easier. Many Chief's have this

mentality and it is a very difficult one to change. They are set in their ways and may not be able

to be broken. However, it is something like this that will drive people away or give us a bad

name. They feel since they are the "boss" they must make all decisions without working with the

employees or in this case the volunteers. It is important to remember as a manager who our

employees are and how they will react to our management style. Granted, we will never get

along with everyone we may manage, but when we try to make it a calm environment where

there is no stress from the boss yelling and giving orders with a justification of "just because"

can make it easier to get tasks done. What many people need to realize what worked in the past,

certainly did work back then but today times are different. Having this mentality does not make

you a bad person or even a bad manager, but it does make you difficult to get along with either in

a paid or volunteer discipline. What may have worked then may not necessarily work now. That

goes for any discipline, with terrorists growing and adapting to situations we see that ways we

try to catch and prevent them even since September 11, 2001 may not work now because of the

ever growing technology and mindsets.

My management style is to problem solved and achieves set goals while having a vision of where I want the organization to go. I think today people who are great managers are great leaders. They set, along with staff, their agenda and hope that people will be able to implement it. The leader earns the respect of the staff and have the best interest of their staff in mind as they set the agenda. A leader today will be able to take criticism so that he will grow and become better at what he does. It must be a horizontal and vertical template that recognizes we work together and the manager also works for someone else. None of this leadership is done in isolation. People need to see a leader as someone who will go above and beyond the norm to achieve a goal. You cannot expect people to follow if you do not lead by example. When your staff sees you as honest, creative and competent, they will be more likely to endorse you and where you are going.

I think people want to know what is expected of them and what needs to be done. This must be given to the employees in a concise, clear manner. But they also want to consult with management and see that their suggestions are valued. I have seen myself as a transformational leader who can get people to reach new heights even they may not have seen as attainable. In an ambulance squad, it is essential to value everyone's input and be willing to change things that may have gone on for a long time but now need to change.

As an EMS volunteer each day is different. There is never a set of number of people on duty. During the daytime there are very few people available since most people are either at work or in school. Over night from 11pm to 6am, we have a dedicated duty crew who is responsible for covering any calls that occurs during the night. There is at least one EMT, driver and one attendant. However, if there is a more drastic incident then more people are called in. If

we need mutual aid for an accident or house fire, then other districts will be called in. It has always been a matter of concern to have the appropriate amount of people for a call since all the surrounding towns that would be called in for the mutual aid are also volunteers. So when the 911 call comes in, I am always concerned that we will not be able to accommodate the need but the squad has always come through. As I think about Homeland Security, I know that as long as I am able to transfer the way I have managed my squad, it should translate into success. Using communication, respect, and shared goals, a team can achieve above and beyond what you might expect. To have employees who are self – actualized will improve the atmosphere in the agency. The 21st Century leader will be one who can have a vision for what the future will be. He or she will work collaboratively within and without of their agency to problem solve. Those who effectively lead are those who have a knowledge and understanding of motivation, leadership and conflict resolution and discipline. A dynamic workplace constantly thrives to change for the better and thereby changes its employees for the better. Today's leaders are creative and innovative. They find solutions where others do not look. Technology will become an ever important part of the workplace. In the field of EMS, to have laptops in the ambulances would help us communicate in real time. This concept is becoming a reality but a slow reality, due to the costs. We are able to type notes, see the history of the patient, and communicate without talking to our dispatchers who can send help without us saying a word. We would have the ability to access the internet to find out information that could be helpful on the scenes. We would be able to see more quickly if there are other incidents that could be related to what is happening in our jurisdiction, which could possibly unveil a terrorist attack. Technology could help us tract the progression if it was an attack or just a track a patient's progress from the scene

to the hospital. Moving forward we know technology will be of the upmost importance. It can

shorten response times and make squads more efficient on scene.

 As I have been writing this paper, I have been struck by how much goes into managing.

Some tings seem like common sense but others really need to be learned. I know I am just

beginning to learn how to lead others, but I also know that if I keep learning and evolving, I will

grow in positive ways to better serve my company and community.

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Chapter 3

Strategic Plan and Budget

I.   Executive Summary

The 2011 Strategic Plan for the Mahopac Volunteer Ambulance Corps. serves to direct

attention on the department's mission and to deliver appropriate quality care to the

community in a timely and efficient manner. The mission statement answers the question,

why do we exist? While doing this, we are ever mindful of our stakeholders and the effect

that our strategies have on them. This plan also identifies our goals as we partner with other

agencies to achieve our objectives. We are ever mindful of keeping our priorities closely

linked to the mission, goals and objectives that we have in place.

In the age of terrorism, we are aware that we may be called upon to rally our resources

for any scenario. There could be a bio-terrorist attack or mass casualty incident or even

weapons of mass destruction. Just because we are in a small town, this ambulance corps.

must be ready to deal with whatever could occur. To this end we must incorporate training,

and planning while updating technology to meet our needs.

We are always being reminded of the constraints we have in our budgets and the burden

these costs can put on the community taxpayer. So to this end our strategic plan will include

our vision, the guiding concepts of what we want our organization to become through our

core values. There will be a stakeholder's analysis for the organization along with a SWOT

analysis of the company to analyze strengths and opportunities along with weaknesses and

threats. This analysis will help us grow and develop in the future. Issues will be delineated

along with strategies that are set up to address these issues. Of course, all this must be done

in the constraints of budgets, which are ever dwindling. The strategic plan will be revised and

changed as needs occur. There will be an ongoing efficiency review to better lay out as

strategies as we go forward.

Citation: Core Ideology and Core Values and Purpose to Lead an Envisioned Future. (Collins and

Porras 1997)

Citation: Mission is a declaration of purpose growing from a dialogue with stakeholders to eliminate

conflicts. (Bryson 2004.)

II.   Purpose, scope and methodology

This strategic plan was created to help increase public value, along with public interest of

the Mahopac Volunteer Ambulance Corps while being cognizant of costs. So strategic

planning is a smart practice that creates a good result in a cost effective manner. It is not a

substitute for leadership. It can help leaders think, learn and act strategically. When the

stakeholders know the why, they will be more prone to engage in the solution of the problem.

Change management in any form sends a message to key stakeholders in terms of who and

what an organization believes is more important.

The scope of the plan will cover all aspects of the Mahopac Volunteer Ambulance Corps.

By establishing open communications within the company and with our stakeholders, we

create a document where all interested parties will have a key role in the plan.

The strategic plan was created through a series of internal as well as external analysis. By

analyzing our strengths, weaknesses, opportunities and threats we lay out a plan to improve

our organization while operating under the guidelines of mandates and budgets. Through this

process we will develop a heightened morale throughout the organization.

Citation: Managements in any form sends a powerful message to key stakeholders (Rideout

and Rewers 2008)

III.   Mandates – Organizations Restrictions Character

Mandates:

Formal:

1. To provide emergency care to all regardless of race, creed or ability to pay

2. To provide said care in the most efficient way possible

3. Respect the human rights of all citizens

4. Department of Labor/PESH and follows the Federal 1910.156 and 1910.120

   requirements for Fire Brigades and HazMat Response

5. EMS recertification every three years

6. EMT –Basic --EMT training course

   a. 16 years of age or older

   b. Practical and written test

   c. Certification for 3 year period

EMT – Paramedic – EMT Training course

   a. Certified EMT

   b. 18 years of age or older

   c. Completely successfully EMT- Paramedic training

     d.   Practical and written test

     e.   EMT- Paramedic certification for a 3 year period

   7. Department of Health

     a.   Schedule of inspections of facilities

Informal:

   1. Promote public welfare

   2. Serve public purposes so the public is served

Mandates that may come in the future are that the authorities that have control over a volunteer fire department may establish an emergency rescue squad within the department and further authorize the squad to provide both emergency and general ambulance services. The statute, General Municipal Law 209-B, prohibits any fees or charges for rendering such services. Since municipalities that are not permitted to charge a fee for emergency rescue and ambulance services must rely on the property tax to fund such services, rather than the individuals who use such services. This section of the law should be amended to permit municipalities to establish a schedule of fees for emergency medical and transport services. In most cases the individual's medical insurance providers would cover the fees.

   3. Citation: (stopthetaxshift.org/2011)

Citation: "Even when they have read these materials, it is likely that their organization's strategic plans will fail to address at least some of the formal mandates and that these mandates, may be overlooked (Piotrowski and Resenbloom, 2002)

Citation: Before any organization can define its mission and values, it must know what it is formally and informally required to do and not to do by external authorities (Bryson, 2004)

IV.   Stakeholder Analysis

Identify stakeholder and criteria they will use to evaluate plan. The shareholders or

stakeholders are identified as the members of the ambulance corps and the members of

the public who use our services.

A power versus interest grid was used to identify stakeholders.

Subjects	Players
Crowd Low	Context Setter High
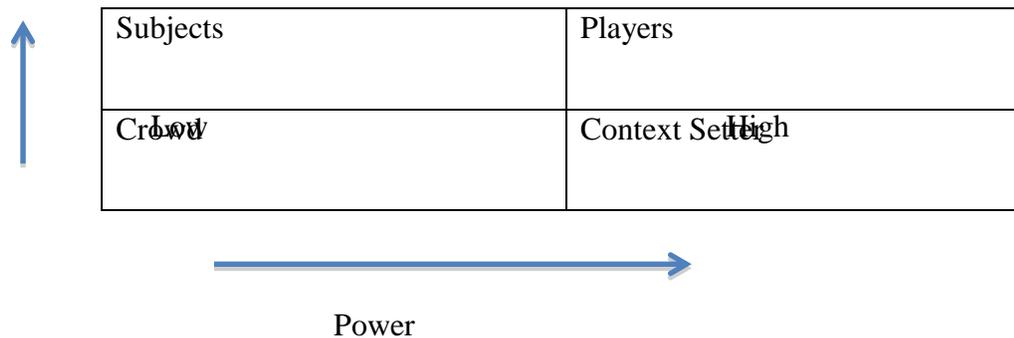
Power

The planning team wrote names on cards of various stakeholders. They were placed in

the various spots on the grid. The group discussed the location of the stakeholders put

into each group.

Those with high power and high interest are called players.

Those with high power and low interest are called context setters. They are not

interested enough to be players.

Those with low power and high interest are subjects because they are subject to

the power of others.

Those with low power and low interest power form the crowd.

After the analysis was done, players were identified as the members in good standing of the Mahopac Ambulance Corp, who have high power and high interest in the organization. The context setters are members of the public who have the power of the budget by their votes to fund the corps. The subjects are identified as the public who use the services because they are subject to the powers of others. The crowds are those members of the public who have no interest or power.

Meetings will be held to go over the stakeholder's interest and see if they are being met or not. Then new strategies will be put into place to further the stakeholder's interest.

Citation: The mission must take the Players and Context Setters into account, even if the organizations ultimate purpose is to serve subjects or crowd (Bryson, Cunningham and Lokkesmoe, 2002)

V.   Vision Statement

Vision Statement: Providing the highest quality emergency care in the best environment for our patients.

Core Values of the Mahopac Volunteer Ambulance Corps.

Duty: To faithfully carry out duties to serve the public in the most ethical way possible.

Respect: To values all those whom we serve and partner with

Progress: To explore opportunities to create an atmosphere for innovation and growth

A successful vision helps define what are the core values and core purposes of the organization. The core ideology is the enduring character and glue that holds an organization

together. The core values are essential enduring tenets of an organization. The core purpose is

the reason for being. It is an idealistic motivation for doing the work. It can last at least 100 years

but it is not a goal or a business strategy. You discover your core ideology by looking inside your

group. It is authentic and cannot be faked. A visionary company preserves core ideology and

stimulates progress (Collins and Parras, 1996).

A vision includes the mission, but goes beyond that. The mission gives you the purpose

and the vision says how the organization will look when it is working well in its environment

and for the key stakeholders. It should come from past decisions and actions to provide a

practical idea of what the organization can and should do while remembering its link to the past

(Bryon, 2004).

VI.   Mission Statement

The mission of the Mahopac Ambulance Corps. is to provide superior quality care to the

ever resilient community, through technology and quick response times while partnering with

other emergency agencies for the good of the patients.

Every organization has a reason for being. The mission is why the organization was first

created. A good mission statement should accurately explain why your organization exists and

what it hopes to achieve in the future. It tells the organization's essential nature, its values and its

work. If it has been more than five years since your mission statement was reviewed, it should be

re-examined or even re-written. It should answer: what are the opportunities or needs that we

exist to address? What are we doing to address these needs? What principles guide the work?

Citation: (Radtke, 1998)

VII. Internal and External Situational Analysis SWOT Analysis

A SWOT analysis was conducted on the Mahopac Ambulance Corps. The results are as follows:

-Strengths- Positive- Internal factors

-dedicated volunteers

-one of the largest volunteer organizations in the area

-chance for promotion within the organization

-we have a high call coverage ratio within the community

-we are funded through taxpayer revenue

-diversity among staff

-collaborating with other agencies

-respected in the community

-awards increase incentives

-Weaknesses- negative- Internal

-Turnover in membership after investing in training

-response time on calls is sometimes longer

-Lack of staffing during the daytime when people are at work

-lack of up to data technology due to lack of resources

-more staffing to handle increased call volumes

-Lack of resources if there was a major incident, especially

During the daytime

-Opportunities

-Collaboration and partnering with other agencies

-Teaching more EMT's to be part of the corp.

-Reaching out to enlist more recruits to service

-Reducing response times

-Acquire more up to date technology to effectiveness

-Expanding new members knowledge

-Use of resources more efficiently

-Community building

-Becoming community leaders

-Use feedback from the corp to move forward

-Use data from other corps to improve our own

-Construct new training facilities

-To combine a volunteer staff with paid employees on the

ambulance corp.

-Threats

-A decline in new membership

-Aging of current members

-Decline in taxpayer contribution as well as a decline in insurance

payouts

-Rise in cost of fuel and equipment

-Major incident in the county that would tax our resources

-Less funds for continues training

-Lack of latest technological advances due to lack of resources

All of this will lead to an analysis of the needs of the organization. We will build upon our weaknesses and use our strengths to achieve our goals. The data collected is important so we can analyze what needs to be done and the best, most efficient way to get there. When we analyze our strengths and weaknesses we will see what hinders the organization's mission.

A strategic planning process that includes information about the organizations strengths, weaknesses, opportunities and threats is essential to analyze the organization. An effective management information system (MIS) is necessary to assess in a relatively objective way the organization as a whole. The organization can take timely actions based on the analyses and

conversations. It also prepares the organization to focus on key strategies stemming from the convergence of the organization's mandates, mission, strengths, weaknesses, opportunities and challenges and its key success factors (Bryson, 2004).

VIII. Strategic Issues and Strategies

After the comprehensive SWOT analysis was conducted issues emerged that needed to be addressed. Strategies were developed to address the pertinent issues.

Issue-Decrease response times of the Mahopac Ambulance Corps to calls

Strategy-Track response data monthly to monitor calls and responses to them and assess what can be done to decrease the time, such as in the house on scene times

Issue-To increase the number of volunteers in the squad

Strategy-Reach out to the local high school and colleges to entice young members to volunteer. Also set up near large stores to show the public how to join and what the squad does

Issue- Keeping the Ambulance Corp members for a long time

Strategy- Offer incentives such as gas money, college reimbursement and housing and tax incentives in the area

Issue- Increase training for all possible scenarios especially at its relates to terrorism

Strategy- Have mandated training for all personnel to keep with up current strategies including having other instructors from other organizations to train personnel

Issue- To have all agencies better coordinate while responding to incidents

Strategy-Notify leaders of the other agencies and meet with them to set up better coordination and communication for incidents especially involving Mass Casualty Incidents

Issue- Acquire better equipment for treating all patients at the scene to effect a better result

Strategy- Set up a bond issue to get money for new equipment and supplies

Issue- To put in place a combination of volunteer and paid services to fill in gaps when there are few volunteers available

Strategy- Meet with town board to propose use of taxes to fund this. Also providing data showing where the volunteers are lacking.

Identifying strategic issues is the heart of the strategic planning process. A strategic issue is a fundamental policy question or critical challenge affecting the organization's mandates, missions and values. It involves what will be done, who will do it and why it needs to be done. These conflicts are necessary for a desirable outcome. We prioritized issues to make a strategic plan that is realistic. Key decision makers may want to stop at this point because they are not willing to do what they need to do to resolve these issues. Using a direct approach is the most useful (Bryson, 2004).

Looking at the important issues we can see where to distribute resources to hot spots. Hot spots are activities with low resource input and with high performance gains. Conversely you can avoid cold spots where a high output of resources has a low impact. To get the desired results leaders must be tipping point leaders who can leverage people to get your desired results. When you have a consensus among people you can affect more (Kim, Mauborgne, Blue Water Strategy)

IX.   Performance Goals and Key Performance Indicators (KPI) and Implementation

The goals will define how to implement the strategy and stated in a specific, measurable, and actionable terms.

Goals for the Mahopac Volunteer Ambulance Corps.

Strategic Goal 1: Decrease response times of the Mahopac Ambulance Corps by at least 10%. We will reduce the response times to emergency calls by 10%. We will do this within a one-year timeline. Data gathered from response times will be tracked for the year. Adjustments will be made to achieve our targeted goal. The Captain and Officers will be responsible for tracking the data and respond back to the squad. After the year the topic will be revisited to see what needs to be changed or modified to achieve this goal.

Strategic Goal 2: We will increase the number of volunteer recruitment in the squad by 10%. The timeline for this goal is one year. Raw data will be tracked on a monthly basis to see what months have more volunteers sign up. This will give a basis for an actionable plan to reach our goals. The recruitment committee will keep track of the data.

Strategic Goal 3: We will increase the number of members who remain active in the squad by 30%. The timeline for this is three years. We will gather the data from the members who have left the squad and find out reasons why they left and how long they have been members before they left. Also we will track what keeps the members who stay for long periods of time. The recruitment committee will be responsible for this. There will be an ongoing review of the data over the three years. We will graph the trends and interpret and analyze the results.

Strategic Goal 4: We will increase the amount of training session by 20% within one year. We will increase training to meet the ever-present terrorist threats whether they be from radiological or biological attacks. We will use the posted training sessions to monitor the increase. We will continually adjust our sessions as warranted. The officers in the squad will be responsible for setting up training and monitoring the increase in them. A review at the end of the year will see if the 20% goal has been met.

Strategic Goal 5: We will increase the coordination of response teams to disasters within the county by 30%. This will take place over three years. We will gather data on response times to major incidents that occur that requires a multi-pronged response. Because such incidents may occur less frequently than the usual calls, the timeline of three years allows for multiple incidents to be recorded and the data analyzed and monitored. This will mitigate our vulnerabilities to major incidents that can affect our resilience. The officers of the agencies involved such as fire, EPA, Health Department will gather the data and they will analyze it jointly. We will review the data to see if coordination efforts are improving.

Strategic Goal 6: We will increase the use of new technology on the scene by 50% over a three-year period. Officers will compare the effectiveness of responses to calls before and after new equipment is used. Review of the Pre-hospital care reports (PCR) will show if patient outcome was affected positively due to updated equipment. This will be an ongoing evaluation as well as at the end of the three years.

Strategic Goal 7: We will increase volunteers and paid staffing to allow for better response times and staffing on the ambulances. The timeline for this goal will be three years. We will track data from calls to see if having paid emergency medical technicians and paramedics affect patient

outcomes. We will also monitor if response times to the scene decreased due to the paid staffing. The Captain and Town Board will assess the costs involved to see if they are justified for the stakeholders who will bear this additional assessment after three years will reassess and determine if the hybrid system is appropriate for the town.

SMART goals are usually one to three year action plans. Statements equal goals. They start with verb and are specific, measurable, actionable, responsible person and time bound. You take big goals and break them down to smaller ones. Coupled with this are Key Performance Indicators (KPI), which help to keep your strategy on track. The frequency can be weekly, monthly or quarterly. Use what works for your organization (How to set Smart Goals, 2008 and How to Develop KPI, 2009).

X.   Budgeting and Resources

The Mahopac Volunteer Ambulance Corps will strengthen its mandate to provide the best care in a timely efficient manner to our community. To fulfill our mandates and mission to protect and care for our citizenry we will expand our efforts to collaborate with partners to provide the best care possible.
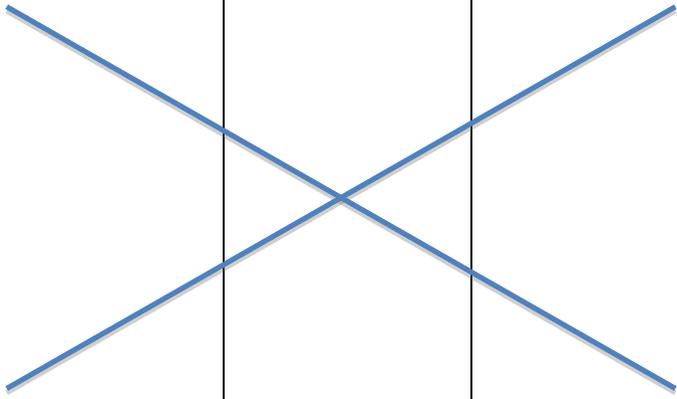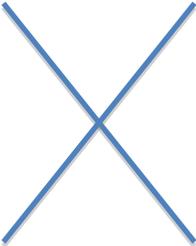
The budget plan will focus on six main areas that will be strengthened by this plan.

1. Decrease response times with paid and volunteer staffing

2. Increase recruitment

3. Increase the number of members who remain active

4. Increase training sessions

5. Increased coordination of response times to disasters

6. Increase the use of technology

Planning, Budgeting and Execution 2011 – 2014

Goals	2011	2012	2013	2014
To decrease response times to emergency calls by 10% in one year by creating a hybrid system	$200,000.00, to build a hybrid staff on volunteer and paid crew 24/7. Resources: Taxpayers will be asked to vote as part of the town budget. Grants from NYS to alleviate some of the tax burden			
To increase recruitment to the ambulance corps by 10% in one year	$4,000.00 Recruitment costs for: pamphlets, food for occasions, equipment for demonstrations			
Increasing the number of members who remain active in the squad by 30% in three years	Allocate $75,000.00 to offer incentives to volunteers who remain active in the ambulance	Resources: Tax incentives Scholarship for continued	Reimbursement for out of pocket expenses such as gas Mentors	

	corps.	education		
Increase training sessions by 20% in one year	$11,000.00. Resources: Use operating budget of the Mahopac Ambulance Corps. to augment cost. County personnel for training at no cost.			
To increase the coordination of response teams to disasters by 30% in three years	$2,000.00 Resources: Money taken from the operations budget of the Mahopac Ambulance Corps.	Set up meetings to better coordinate responses.	Meeting with other agencies to set up response guidelines.	
To increase the use of latest technology on scene by 50% over three years	$80,000.00 for equipment technology	$200,000.00 for purchasing a new ambulance	50% from operating budget 30% from Federal grants as part of DHS response to terrorist threats 20% buy refurbished equipment.	
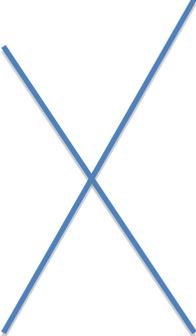
Efficiency Review

As we prioritize our spending we will review the budgets in place to see if our money is being well spent. This review will take place every six months. Some budgets are for one year while others extend to three years.

Doing this assessment, will give us a chance to revamp and re-examine this so we can modify it as needed. This strategic plan can be a jumping off point to help us begin to focus on the needs of the Mahopac Volunteer Ambulance Corps.

Chapter 4

Relevant Constitutional Issues Related to Public Safety in a Resilient Community

September 11, 2001 had definitely changed our sense of security. We had been attacked on our soil, which had disrupted our sense of well being at home. The enemy had brought its fight to us and we would have to live in this new reality. However, questions arose when we tried to balance our security and well-being while at the same time trying to preserve and uphold the tenets of the Constitution.

The USA PATRIOT Act was passed by Congress in the weeks following the attacks and President Bush quickly signed it into law. The purpose of the PATRIOT Act was to deter and punish terrorist acts in the United States and around the world. It also enhanced law enforcement's investigating tools and other purposes some of which included strengthening international money laundering and the financing of terrorism; scrutinizing foreign jurisdictions that are susceptible to criminal abuse and facilitating repatriation of stolen assets to the citizens of countries to whom those assets belong. Section 352 of the PATRIOT Act required financial institutions to establish anti money laundering programs, which would develop internal policies, procedures and controls and have a compliance officer, along with employee training programs with an independent audit. Having these elements in place would help offset terrorists as they tried to get funds to pay for their activities (Senate, 2001).

The PATRIOT Act legislation contained many aspects that had been sought by Federal Law Enforcement agencies during the Clinton administration. Most of the provisions did not raise controversy and made it easier for the government to fight acts of terrorism. However, there

were certain provisions that did raise questions of constitutionality. Some of the issues that were

raised were the continuing use of these provisions in non-terrorism related investigations. The

Bush administration said that the US PATRIOT Act was an essential part of why the country had

not suffered another attack since 9-11. This is a premise that is hard to prove or disprove since

there were other things in place to lessen the vulnerability of our country to terrorist threats.

There was enhanced airport security, better coordination of intelligence and greater public

awareness to threats. The administration felt all the provisions, even those set to expire, should

be made permanent and that the government may need more powers as we go forward. Thus

followed efforts to amend parts of the US PATRIOT Act. In 2005, Congress held hearings

examining the far reaching effects of the act and if changes were necessary. It became an issue of

"had the government overreached in an attempt to secure the country." Questions of

constitutionality were raised. Had we surrendered the rights secured in the Bill of Rights to fight

this new war? None of these questions is easily or simply answered. Even people who were

against the Act saw that they did not want it repealed but rather they wanted to set limitations on

the exercise of those powers. They wanted to make sure we kept the constitutional standards of

government efforts to gather evidence to be used against the citizenry (Senate, 2001).

The 4th Amendment to the Constitution says, "The right of the people to be secure in their

persons, houses, papers and effects against unreasonable searches and seizures shall not be

violated, and no warrants shall issue, but upon probable cause, supported by oath or affirmation

and particularly describing the place to be searched and the persons or things to be seized."

So people who were opposed to certain provisions of the PATRIOT Act, saw it as giving

those in charge the latitude to invade our privacy without a reason. They felt that the government

would be trampling on our constitutional rights in the name of protecting our country. The question of the greater good was raised again. Would we give up some individual rights to feel safe and perhaps even prevent another attack.

Perhaps people saw this as an attempt to resurrect the Alien and Sedition Acts that were passed by Congress in 1798. The Alien Act allowed for the expulsion of aliens deemed dangerous to the country during peacetime. The Sedition Act called for fines or imprisonment for people who criticized the government, Congress or President in speech or print. These acts were really political in nature at the time they were passed. The Federalists controlled Congress and wanted to try to end Jefferson Republicanism. These acts were supposed to control the activities of foreigners in the United States during a time of impending war. The Sedition Act was seen as violating the First Amendment and was never enforced but the Sedition Act was. The Alien and Sedition Acts sparked a debate about the limits of freedom in a free society. Thomas Jefferson pardoned all those convicted under the acts (Homeland Security Act, PATRIOT Act, Freedom Information Act and HIM (Updated)).

If we bear in mind that our primary goal should be to have a safe, resilient community where citizens feel protected from threats whether internal or external, we can see that the PATRIOT Act served its purpose. It helped law enforcement mitigate threats to our lifestyle. Terrorists try to thwart our feeling of well – being and disrupt our everyday life, while at the same time causing harm to those whom they perceive to be their enemies. Of course it is difficult to quantify if the PATRIOT Act kept us safe but we can say many threats have been thwarted due in no small measure to this. As a first responder, I want to know that we have done everything we can to prevent a bioterrorist attack or devastation from Weapons of Mass

Destruction. J. T. Caruso, Deputy Assistant Director Counter-terrorism Division of the FBI, when he testified in front of the Senate Judiciary Subcommittee on Technology, Terrorism and Government Information in November of 2001 said that the bioterrorism threat had risen to a new level and local governments had not had a coordinated response to bioterrorism such as an anthrax attack. Scenarios evolved where letters containing substances like anthrax were sent to citizens. These situations would alert local fire and EMS personnel. An FBI WMD coordinator would act as a liaison on the scene. The first responders must treat each threat as credible until scientific analysis proves it to be untrue. As part of the US PATRIOT Act, Congress approved a modification to Title 18, USC Section 175 which criminalizes the possession of some biological material except for medical purposes. Prior to this the government had the burden of proof that certain biological agents were for illegal intent. This created a great burden on the government. This modification will help to apprehend those who seek to do us harm (Caruso, 2001).

All of this leads us back to our basic premise of how can we balance keeping safe without violating our rights as given in the Constitution. The PATRIOT Act gives the government some latitude but by the same token if we had had these provisions in place prior to 9-11, perhaps it would have been a different scenario. Since the next major attack may not come in airplanes into buildings but rather in a small vial of anthrax, it is necessary for us to broaden our scope into suspected bioterrorist threats. Finding the balance between the preservation of the greater good and the individual's right to privacy can be a slippery slope to navigate. Keep in mind that the health care communities can only use private information to collect clusters of cases, and not individual cases. It is in the interest of all citizens that public health officials share data to make the right predictions of potential threats to our safety. We cannot allow ourselves to make the same mistakes that we did prior to 9-11, but rather we must be committed to share information at

all levels in the health care system. If the Center for Disease Control determined there was a bioterrorism threat that they discovered, it would be incumbent upon them to alert all agencies that would need to know about this. The agencies in turn would alert all personnel at all levels right down to the local ones, so that all appropriate measures would be put in place. Failure to notify all parties could have catastrophic effects. The more informed the authorities are, the safer we are. Keeping the lines of information open is essential to a resilient society, operating within the parameters of privacy for the individual. Public health information sharing systems can garner information for national security without compromising patient privacy. We still need to develop more informational security efforts as we aim to be prepared if there were a bioterrorism attack. We are ever mindful that no agency can work alone but rather we must work collaboratively to identify, obtain and release information to the appropriate agencies (Senate, 2001).

In the Emergency Medical Services (EMS) profession we are called upon every day to protect the privacy of our patients guaranteed by the HIPAA laws. Section 223 provides civil liability for certain unauthorized disclosures to protect the patient's private information. The US government is permitted to access any and all information to protect the nation and HIPAA regulations permit these disclosures. Today we even have syndromic surveillance designed to monitor "non specific clinical information that may indicate a bioterrorism associated disease before a specific diagnosis is made."

These methods of surveillance and disclosures may seem to violate and invade a patient's privacy. However, the collection of health data is intended to collect cluster cases and not individual ones. The syndromic surveillance is de-identified when given to an outside source.

Therefore, in order to keep that safe and resilient society, we need to avail ourselves of all means, within reason, to protect our nation. These steps work together with our constitutional rights provided in the 4th Amendment.

The Senate has also found that we must take the additional steps to better prepare the United States for a bioterrorism attack. Sponsors of terrorism have the resources and motivation to launch a biological attack using any means available, such as aerosolization to make weapons of certain germs even easier. Terrorists are able to access technologies to construct and deploy chemical and biological WMDs. Enhanced resources of local, state and public health officials need improvement to respond to an attack. In this realm local hospitals need to be prepared to accept mass casualties that could result from such an incident. Of course, there is no substitute for training to recognize, diagnose and treat illnesses from bioterrorism attacks. Strengthening the public health care system will ensure that the United States is prepared at all levels for potential attacks. We also need to move toward improving disaster medical systems and target research to assist with developing appropriate therapeutics and vaccines and assist drug review through the Food and Drug Administration. Along with national preparedness, we must work internationally to secure dangerous agents, increase surveillance and retain biological warfare specialists as we try to prepare ourselves for whatever attacks may come.

In this new age, if EMS is called out to a scene the chance that it could be something terrorist related is stronger than ever. Since we live in the shadow of Indian Point Nuclear Power Plant, that is always a terrorist target. The Critical Infrastructure Protection Act of 2001 found that private business, government, and national security increasingly depend on critical infrastructures including energy, water and transportation. There needs to be an effort to ensure

reliable provisions of cyber and physical infrastructures that are critical to national defense,

prosperity and quality of life in the United States (Homeland Security Act, PATRIOT Act,

Freedom Information Act and HIM (Updated).

So in this atmosphere of threats that could come from terrorists at any time the PATRIOT

Act has put into place the necessary tools to deal with this. We can never have our guard down to

a point where we are vulnerable to attacks where bioterrorist or otherwise. The PATRIOT Act

does not trample the Constitution but it is a necessary piece to make sure that our interests are

protected. The fact that we can track money laundering so the government can "follow the

money" will help to cut off resources to those who seek to do us harm. The government still

needs warrants to conduct searches even though the subjects may not be given prior notice.

There needs to be some latitude given if we are to protect ourselves. There are those who say the

Constitution is not relevant to govern the lives of an increasingly diverse citizenship. However,

the Constitution has weathered the test of time. Government actions are restricted by

Constitutional law. So people who have concerns regarding the effect of the PATRIOT Act on

the Constitution can see that the purpose of the Constitution is to limit the government and when

changes are necessary the amendment process will be used (Babier, 2010).

There have been questions regarding The Posse Comitatus Act of 1878 after September

11. There was talk about changing this to enable active duty military to fully join domestic assets

in the war on terror. The Posse Comitatus Act bans the armed forces of the United States from

participating in arrests, searches, seizures of evidence and other police activity in the United

States. The Coast Guard and National Guard under the states' governors are excluded from this

act. This did not come to pass and the military was kept separate and not used a police force on

United States soil. But we can see just how far people thought to go in the efforts to keep

America safe. Another issue regarding the public safety is raised when we talk about violations

in immigration laws. People cross the borders and can go undetected for years as they can plot

against us. Since under the 14th Amendment, anyone born in the United States is automatically a

citizen, so this raises the issue of securing our borders. If the federal government does not do its

job then we risk having states setting their own policies. Without clarification of the Commerce

Clause, both the federal and state governments will use it for their own purposes. Article 1,

Section 8, Clause 3 of the Constitution gives Congress the power to regulate commerce with

foreign nations and several states and Indian tribes (Leventhal, 2001).

In the field of EMS there are many times when ethical issues arise. Ethics is defined as

the system of moral principles. Within EMS we encounter many different situations and rules

that could challenge our ethics. People often interchange the terms of morals and ethics. The

definition of the term morals is pertaining to, or concerned with the principles or rules of right

conduct or the distinction between right and wrong (*Merriam-Webster*).

EMS looks to the law for guidance when developing methods to honor advance directives

to limit resuscitation or to implement policy about involuntary transport or dangerous patients.

However, legal guidance does not provide every answer. Many issues in the pre-hospital setting

have not been addressed by statute or by case law. It would be helpful to have a universal set of

applicable standards. The law may be ambiguous and does not translate to the situation at hand.

It does not address the ethical imperatives, which obligate emergency medical services. The law

may not reflect ethical behavior. Even though the law is limited in its ability to provide guidance

and direction, ethical analysis should provide a framework for determining moral duty, obligation, and conduct.

EMS has important ethical obligations. It has a duty to respond regardless of patient's income or social position. Triage care must be based on only medical conditions and well-defined protocols. These allocations must not be arbitrary. EMS requires honoring patient directives to limit intubations and avoid CPR. There can be written DNR orders, living wills, clear and unequivocal family requests. The pre-hospital care provider operates, as does the doctor, only at the request and with patient consent.

The pre-hospital setting is unique. Many times EMS are put in dangerous situations. In these cases the help of law enforcement is encouraged. Dangerous circumstances can be anticipated so as to minimize risk to patients and EMS personnel. Efficient response, appropriate care, and safe expeditious transport are the components of pre-hospital care.

Respecting patient autonomy is a fundamental ethical principle of the emergency medical services. Ethical conflicts surround issues such as DNR, and the EMS crew has an obligation to remain fair and establish priorities for patient care. Citizens, even though they are sick are still protected by the Constitution "promoting the general welfare" of its citizens. Article 5, Section 2 also states that the citizens of each state shall be entitled "to all Privileges and Immunities" It does not differentiate between citizens who are sick or not (NYS Department of Health).

As a first responder, when I go on a call, I am always cognizant of my duty to my community and to my patient. The fact that every patient is treated the same regardless of race, creed or origin puts me in a unique position. I see firsthand how a free society works for its

citizens. Patients are guaranteed privacy as well as free speech to articulate their wishes as it pertains to their care. We do not ask for verification of citizenship before we administer aid. Everyone is treated the same. It is a microcosm of a perfect America if one were to exist, one where there are no exclusions and everyone is treated with respect.

I am also aware that there are circumstances where bioterrorism or other threats may be present when I arrive on the scene. Even when we arrive on the scene of a car accident that may involve a truck or a tractor-trailer, we are never sure of the circumstances. This could be a cargo transport of a substance that could be dangerous to the environment such as oil or gas. So it is necessary that when we are on a scene we take all necessary precautions to make sure that the public is protected. It could even turn out to be a bio-terrorism scenario. We can never approach any scene as just another accident. Post 9-11, we are forever changed in how we react to any accident or scene. Because of this, I am also grateful that we have increased surveillance and access to data to better protect everyone on the call. The Constitution provides us with the framework of our democracy. It has withstood the test of time and weathered attacks upon it. Yet it is still here as a testament to what we value most in our country, freedom and personal rights. The 2nd Amendment provides us the right to bear arms. When the laws that are in place are followed then people's rights are protected. I deal with the aftermath of gun violence when someone has managed to circumvent the statutes and illegally gain access to a gun. The aftermath can leave behind devastating results. The forefathers saw the right to bear arms as necessary to their survival. I definitely agree that the 2nd Amendment must be preserved but it would help with the proliferation of illegal guns if the laws that are already on the books were enforced so that the causalities inflicted on the population could and would be lessened.

Not only do we have to be ever vigilant against the enemy without but also the enemy within. Fringe groups have formed across the country where extremists believe that even though they live in the United States they are separate from the United States. They seek to undermine the government by clogging up the courts with frivolous lawsuits. They counterfeit and write bad checks. They do this to disrupt the normal flow of government. They are in every sense of the word, terrorists. They operate under the guise of the 14th Amendment to justify their alleged sovereignty. The Fourteenth Amendment had several arms when it was ratified in 1868, including the guaranteeing of United States citizenship for ex-slaves. However, to sovereign citizens it did much more. They said that before the ratification of this Amendment, virtually no one was a citizen of the United States. You would have been a citizen of the state you lived in. They felt only citizens of Washington DC or federal territories were citizens of the United States. The 14th Amendment, they claimed, set up a new class of citizens that you could voluntarily join. They claimed the Amendment in essence tricked people in its jurisdiction so they did not realize they were obligating themselves to such things as social security cards, driver's licenses, car licenses or even hunting licenses. So they felt since these contracts were made without their knowledge they were invalid and thus declared themselves "sovereign" citizens. They would be subject to only common law. So they felt that all levels of government had no jurisdiction over them and they did not have to abide by the laws set up. This they felt gave them the right to dismiss any and all laws they wanted to by any means necessary including violence. They operate outside the authorities in place. Article 1, Section 8 of the United States Constitution says that "congress shall have the power to levy and collect taxes, and provide for the common defense and welfare of the United States. This affects the country's safety because if they do not pay taxes, we do not have the resources to pay for the services we need. At EMS level we are

ever mindful of tax revenues that go towards providing emergency care to our community. If people are not paying for these services with their taxes, we are put at a disadvantage to provide mandated services for which we are not permitted to charge. So innocent people will suffer because of the domestic terrorism that these groups perpetrate (Adams).

As first responders it is incumbent upon us to make and keep our community safe and resilient. We do this ever mindful of the Constitutional implications of our actions. There are many measures in place to protect citizens from abuses to their freedoms. People want and need to feel secure in their environment. As threats increase we will continue to be tested to see if we can protect ourselves from those who mean to do us harm. We will employ new technologies and training to keep up with the advances in the field. We can never be complacent because tragedy can strike anywhere even in a small town. We proceed using tactics that will mitigate the effects of any scenario upon our home.

There will always be challenges to the Constitution from measures that are put in place for our welfare. But the Constitution is a living document that will be able to evolve, via amendments, to meet the new reality that we now live in.

When questions arise about the construct of the Constitution perhaps we should bear in mind what Thomas Jefferson said, "Let us carry ourselves back to the time when the Constitution was adopted, recollect the spirit manifested in the debates and instead of trying what meaning may be squeezed out of the text, or invented against it, conform to the probable one in which it was passed" (Homeland Security Act, PATRIOT Act, Freedom Information Act and HIM (Updated)).

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Chapter 5

Evaluation of the Mahopac Volunteer Ambulance Corp.

The Strategic Plan for the Mahopac Volunteer Ambulance Corp. is to provide the highest quality emergency care in the best environment for our patients. We will strive to accomplish this through the use of updated technologies while reducing response times to calls. We will partner with other agencies while being ever mindful of budgetary constraints as well as the needs of our stakeholders. We are cognizant of the fact that we can become victims of a terrorist attack even in our small town. Some of the likely causes could be from bioterrorism or Weapons of Mass Destruction (WMD) or even an attack at Indian Point. To really fortify our community we strive to create an atmosphere of public safety while fostering the resiliency of the citizens to face whatever threats come their way by constantly training and fortifying our ranks of volunteers and monitoring ways to respond to mass casualties by amending mutual aid agreements. We will explore options of creating a hybrid department with volunteers and paid staffing to increase overall presence of personnel in a disaster.

II. Purpose of the Report

People increasingly want to know what value is provided by the program that they fund. The evaluation of the Mahopac Volunteer Ambulance Corp. (MVAC) will enhance the logic of the expenditures for programs, activities and training. There will be a practical evaluation of the program at a reasonable cost. It will identify how to improve the program. We need to see what parts of our agency are producing adequate results and which are not. This will give us answers to see if we are reaching out mission statements. This evaluation will tell you what is exactly

being accomplished, so we can see if our intent and performance match up (Wholey, Hatry, &

Newcomber).

We live in an age of accountability. The public demands that there is quality in the

services rendered. In return they will give financial support in the form of taxes. It is essential

that the public feel that their interests are protected and that their tax dollars are spent in a way

that is prudent. The stakeholders are ever aware that money cannot be squandered and that strict

accountability is mandated. No longer will the public hand over funds without holding those

receiving those funds responsible for their prudent use.

III. Background of the Organization

Emergency Medical Services (EMS) within the county of Putnam consists of different

types of systems. There is all volunteer corps in some districts, which only run ambulances out of

their stations. Some are fire department bases, which run fire and ambulance calls for their

assigned districts. There is also paid Advanced Life Support (ALS) within the county which is

contracted out by a private company. The contract calls for 4 paramedics 24/7, which include 3

ALS fly cars, which cannot transport a patient as well as one ALS and Basic Life Support (BLS)

ambulance fully staffed during certain areas.

EMS is usually the first on the scenes and so must render first aid to the injured, triage to

determine the order in which care is given and transport those who need to be seen at a hospital.

So the overall goal of EMS is to provide transport and treatment to patients in a professional and

timely manner. By conducting this evaluation of the Mahopac Volunteer Ambulance Corp, we

hope to provide ways to improve the system already in place. EMS is part of the public safety

sector (dispatch, law enforcement and fire services). Going forward successful EMS providers will need to integrate more fully with public health to make sure patients are transported to the best facility for their care. Care must be given as part of a cohesive system and not in isolation (Rural health).

IV. Goals and Mission of Evaluation

The goal of the evaluation is the application of systemic methods to address questions about the program's operation and results. It can include the monitoring of costs. This practical program evaluation will assess the implementation of the program, results and ways to improve the program. Program evaluations which are only used for external accountability and not internal may not be worth the cost. It will be a utilization focused evaluation to test questions raised by those in charge of a program so that the information provided by these answers can affect decisions about the program's future. It must be done in a timely manner to affect decisions. Problems will be identified by some stakeholders. Of course, the goal of conducting any evaluation is to make positive change. We must know that from the outset the work may contribute to achieving policy and program goals. So program improvement is the ultimate goal of the evaluation. Using a plan and a design that are relevant, responsible and credible will stimulate program or policy improvement. Goals based evaluations are evaluating the extent to which programs are meeting our predetermined goals.

The evaluation will identify goals and how the program has been achieving those goals. We will examine if there are enough resources allocated such as money, equipment, facilities, and training to achieve the goals. We will see if we need to add or delete goals and what would be the rationale for doing so as we move toward the future.

Since the mission of the Mahopac Volunteer Ambulance Corp. is to provide superior quality care to the community, through technology and quick response times while partnering with other emergency agencies for the good of the patient, this evaluation will further move us toward complete implementation of the goals and missions stated.

The overall purpose of the this evaluation will be to improve the effectiveness of the program and show that there is an efficient use of taxpayer dollars and to improve services to improve our stakeholders quality of life. We must of course be aware that evaluations are complex, and that issues may arise that were not foreseen at the beginning but can become critical as the evaluation unfolds. So we must not become so entrenched in the evaluative process that we forget the big picture. It would be beneficial to engage the stakeholders in the evaluation as this will help us partner together to reach our common goals. It is much more useful to partner with out stakeholders so we are not on opposing sides of the process but rather we jointly go forward toward common goals.

V. Methodology

People may think that an evaluation of a program is about proving success or failure of the program. Success can be having a program that is open to continuing feedback and then adjusting your program to that feedback. The methodology of the evaluation depends on what you want to learn. Outcomes evaluations are used by non-profits to verify that they are helping their groups. Evaluations can identify strengths and weaknesses much like a SWOT evaluation. An outcome based evaluation would be useful for the MVAC. It would see if inputs justify outputs with the stakeholder's funds.

Knowing why you want this evaluation is critical to the process and who your audience is essential. I would use a goals-based evaluation to determine if the program is meeting the goals already in place (McNamara).

The evaluation process is an ongoing cycle. It is essential to identify the stakeholders to have a truly effective evaluation. The stakeholders are the individuals and groups that can affect or are affected by an evaluation process or its findings. To identify these stakeholders we will create a stakeholders influence diagram of those who are being considered primary intended users. A power versus interest grid can be used to identify stakeholders.

↑	Subjects	Players
	Crowd	Context Setters
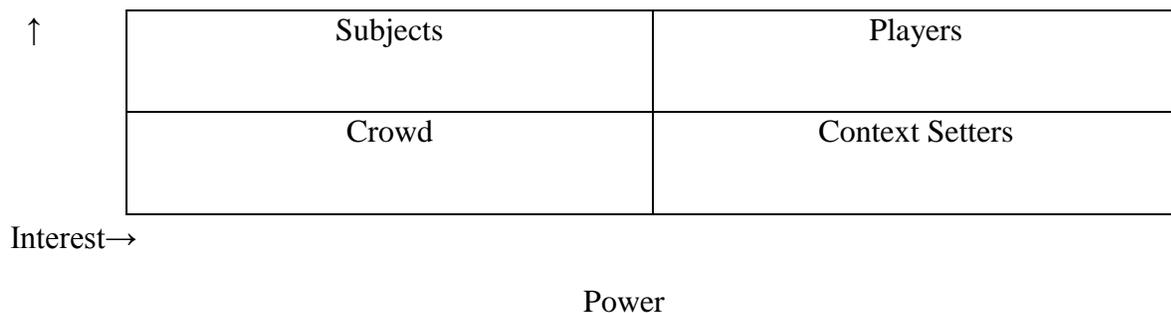
Interest→

<div align="center">Power</div>

Names of various stakeholders are written on cards. A group discussion follows to discuss the locations of the stakeholders in each group. Those with high power and high interest are called players. Those with low interest and high power are called context setters. They are not interested enough to be players. Those with low power and high interest are subjects because they subject the power of others. Those with low power and low interest from the crowd. There will then be a discussion of the implications of the resulting stakeholder placement (Wholey, Hatry, & Newcomer, Handbook of Practical Program Evaluation, 2010).

After this is done, we will see who are central to move the evaluation forward and who are peripheral. It will tell us where existing channels of influence are and tells us where coalitions in support of the evaluation process exist or might be formed. It is crucial to know who the key stakeholders are as we move forward in our evaluation (Wholey, Hatry, & Newcomer, Handbook of Practical Program Evaluation, 2010)

A logic model would be useful in the evaluation since it is a visual aid that summarizies key elemts of the program in a flowchate. A basic logical model has three parts, program structures, outcome structure and context.

Logic

Model

Inputs

Outputs

Activities

Partifipation

Outcomes

Short, Medium and

Long Term

Medium Term

Long term

What we Invest:

Staff

Volunteers

Time, Equipment

Money, Technology

Research, Partners

What we do:

Conduct meetings and
training sessions.

Render emergency care

Assess

Partner with mutual
Aid agencies

What we reach:

Patients or clients

Decision makers

Stakeholders

Short Term

Learning

Awareness, Knowledge

Attitudes, Skills,

Opinions, Motivations

Medium Term

Action

Behavior, Training,

Decision making,

policies

Ultimate Impact

Conditions

Social, Economic,

Civic,

Environmental

When we set up this logic model we can monitor and see what critical areas need to be worked on (Wholey, Hatry, & Newcomer, Handbook of Practical Program Evaluation, 2010).

Randomized Controlled Trials (RCT) work well in medical research. No new pharmaceutical product will be licensed until it is tested with several large RCT with human participants. So this would not be appropriate for the evaluation of the MVAC.

Case studies can be a useful method to assess data. Even though it may seem like a simple methodology if it is not done carefully and according to a given criteria, your results will not be accurate. They are useful for seeing how effective the program's implementation has been. The findings may be hard to generalize since they are particular to a person. Keeping people in the study can be problematic. You can use incentives, but that can compromise your case study because people could be staying for incentives and may tell you want they think you want to hear. As part of the ambulance corp we are restricted by HIPPA laws so this method would not work well since it could violate the privacy of patients. To fully secure their privacy would not be cost effective. They are also time consuming to collect, organize and describe.

A multi site evaluation would compare programs at two or more sites. There is a benefit from sharing visions and insights across like areas. This would be a good way to see how we at MVAC compare to like districts in response time, cost, training, technology and ability to retain personnel. This multi-site evaluation may be too costly and time consuming to use.

Evaluations, revisions and re-evaluations are used to better improve the program. Outcome monitoring is the regular reporting of the program's results in a clear and understandable way. It keeps you apprised of performance and allows problems to be detected. It

provides proof about the program's effectiveness while boosting confidence. In using this method, we would focus on relevant data. These measures should be easy to interpret. Using this it is important to focus on cutting down response times. We would measure response times prior to inserting changes then measure response times after to see if we did in fact affect a positive outcome.

Surveys are another effective way to collect data for program evaluations. Surveys can get what we need quickly and easily in a non-threatening way. It can be completely anonymous, inexpensive to administer, easy to compare and analyze, administer to many people and gather a lot of data. Sample questionnaires already exist. Appendix B and C will show surveys that can be administered. This would work for the MVAC as a way to get data in an inexpensive way. There are some challenges connected to this method such as we might not get careful feedback. They tend to be impersonal and may not tell the whole story. Even with these pitfalls it is a good, cost effective method.

There are many methods to collect data. There is a cost benefit analysis (CBA) which will try to assess the service programs by determining whether there has been an increased positive result because of the program. To do this we will determine the benefits of the program while placing a dollar value on each benefit. We will calculate the total cost of the program, and then compare the benefits and costs. It can be difficult in EMS to place a dollar value on what we do, but the stakeholders demand accountability.

A goal based on-going evaluation would be summative because it measures program outcomes and impacts during ongoing operations. There can be a blending of qualitative as well as quantitative research. Qualitative research would come from interviews or using open ended

questions in a survey. Quantitative data would come from administrative records and surveys by internet and mail.

The evaluation of the MVAC could gain insight from using the Evaluability Assessment (EA). This will answer the questions if the organization is ready for a useful evaluation. Using the four criteria of, agreed upon and realistic goals, information needs well defined, data is obtainable and users are willing and able to use the evaluation information to enhance accountability and transparency for the ambulance corps. I definitely feel the corp. would be ready to be evaluated since it meets the four criteria. This will be useful in the short-term and help in designing more definitive evaluations.

The Rapid Feedback Evaluation could be useful to produce tested designs for evaluating the program in terms of agreed on program goals. This purports that there is need for further evaluation. So once the Evaluability Assessment is used then we could move to a Rapid Feedback Evaluation.

Documentation review is a way to know how the program operates without interrupting the program. It can get documents from applications, finances, memos and minutes from meetings. This can give comprehensive information and does not interrupt the program it uses information that already exists with few biases attached. It can be very time consuming and not very flexible. It is something that could be useful to the MVAC.

Interviews can be used when you want to know more about answers in a survey. However with the concerns for patient privacy, the cost and biases attached this may not work for my evaluation.

Using observations of the program is useful since we can view operations of programs as they are actually occurring and can adapt to events as they occur. However, they can be difficult to interpret as well as costly and complex. This would not work in this evaluation.

Focus groups explore a topic in depth through group discussions. They are useful in understanding common complaints and are useful in evaluations and marketing. It can be an efficient way to get much range and depth of information about the program. It can be hard to analyze responses and to schedule 6-8 people at a time. This would not really be a good way to go for the MVAC evaluation.

So I would use surveys and documentation review to do an evaluation. These would be the most cost-effective and timely way to get a complete look at the organization as we move forward. Taking into account the information needed and how it can be collected at a low cost in a practical manner. We will get most accurate information to present to our stakeholders. The evaluation would be generated by seeing what goals have been met. Are there adequate resources such as equipment, and training in place to achieve goals? Are our priorities correct to achieve these goals? Do we need to change or update goals, maybe add or remove some? How should or goals be made going forward?

The evaluation would also be outcomes based. For a non-profit this methodology will work. We will see if we are doing what we need to in order to get the right outcomes. Are we giving the community the most effective care in the timeliest manner?

An internal survey of members would be a good starting point. It is essential to see how the group sees itself. Is it operating as a cohesive group? Do they see themselves as essential and

valued to the operation? If we do not assess our internal operations first, we cannot be truly

accountable to our stakeholders.

VI. Analyzing and Interpreting Data

We will use the data collected from the MVAC in relation to time to call responses

per year. We will look at the data from the survey and then relate it back to our goals. Have we

served the community in a timely manner, which having the best results possible? We must not

lose sight of why we began this evaluation. From our survey we will tabulate the information and

add up ratings.

For qualitative answers to open-ended questions we will use the PPOIISED method.

Analyze the purpose; what kind of questions are we seeking to answer. The paradigms show

what questions are about reality and knowledge. The options if we link this data to other data.

Interpretations how will we categorize the data. Iterations which should be built into the process.

What standards should guide the qualitative analysis? We will see if any ethical issues arise in

the analysis. Then we will display the data.

With our qualitative answers we can group them into similar categories and label

them. While doing this we will begin to see patterns and relationships forming. The data will be

kept along with the analysis to help us in the years to come.

Quantitative data tells us how much. The mode would be the most frequent answer.

The median is the middle and the mean is the average.

Once we have collected and analyzed the data we need to interpret the results. How do

these answers relate back to our mission and our goals? Have the answers generated more

questions that need to be addressed? We can see what areas need improvement as well as those that are doing well and meeting our goals. We could record the conclusions and recommendation along with our interpretations.

VII. Conclusions

Anytime you can document in black and white to your stakeholders that your organization is worth the cost you are ahead of the game. In an organization such as a volunteer ambulance corps. that is funded by taxpayers, the accountability of the squad is always paramount. Some think that a Cost Benefit Analysis (CBA) is a very good evaluative tool. However, it can be difficult and time consuming. A Cost effective Analysis (CEA) may be a better starting point since it requires the evaluator to identify the most important outcome and relate it to the money spent. In the case of the MVAC the most important outcomes would be that the patients get the best pre-hospital care possible so that his hospital stay would be as good as possible. The money spent on the ambulance, and equipment and training would be justified by a good patient outcome. Deciding whose costs and benefits should be recognized to note the effect on the community as a whole. The narrower the geographical scope, the fewer costs and benefits will need to be counted. So the evaluator should keep the assessment in the area that bears the brunt of the costs. We can evaluate and compare inputs to outcomes. Do the expenditures of money justify the outcome to the patient? Of course, some people would say you cannot put a price on saving people's lives but the reality is there has to be parameters – constraints of budgets. There are onetime costs up front such as ambulances with ongoing costs of training and technology. There would be a definite benefit in having the corp. which would be supported over time.

In the case of a volunteer ambulance corp. it is important to keep records to justify each dollar spent on the organization. Each cost must be clearly stated. If you make any assumptions you need to make those clear to decision makers to determine to what extent the outcome of the analysis is controlled by assumptions. To quantify benefits in a CEA, you first identify most important benefit by which to measure the success of the program. We could measure time spent from the 911 call to arrival on scene and from scene to the hospital.

We could perform a sensitivity analysis. Since with advanced directives and living wills, first responders do not have to quantify the value of life. To us, we are there to do our job being mindful of the patient's wishes. As long as we act ethically the result will be what the patient wants.

The final step would be to make policy recommendations based on the analysis. Would there be any ways to streamline the process to get a better result? Would we need to ask for more expenditure from the taxpayer to get better outcomes? This would work for the ambulance corp. as a volunteer agency which would be dependent on funding to accomplish goals. So the clearer we present our case, the better the outcome for all invested in the process.

VIII. Recommendations

The final step in our evaluation process is to see what recommendations we can make to our stakeholders so we can better serve them. Gathering information, interpreting data is useless if we do not use it to improve our organization. We need to see if we can use the information to shorten response times so out pre-hospital patient care time would be reduced. When that time is reduced then hospital time spent by the patient can be reduced. If we do not

report out results to the public we cannot have transparency and accountability. This document should be used in the most non-political way possible.

We need to reveal out results in a way that is easily understood by our audience. Stakeholder's want to see that their interests are being watched after and not just a means of funding the organization.

Recommendations that are straight forward and clear to those invested in the result will garner greater acceptance. People just want to see that there is an effort to do the best job we can for the public's greater good.

Appendix

A.   Introduction to Survey

The following survey is being conducted with the Mahopac Volunteer Ambulance Corps. so that we can have the data to help evaluate our performance. The hope is that we can build on our strengths and improve our weaknesses. The survey takes about *5* minutes to complete. Your participation is completely voluntary, and your responses will be completely anonymous. The data I collect will be analyzed at the group level only.   You do not have to answer any question you'd rather not answer. There are no consequences if you decide not to complete the survey.

Since our mission is to provide the best service possible in our community, being introspective helps us reach our goal. In the 21st Century a resilient community is one that is well prepared to endure any occurrence.

Thank you in advance for your help on this very important issue.

_____

Michael Linehan

B.

Survey given to the current membership

I _____ (please print your name), give the Mahopac Volunteer Ambulance Corps. access to my answers to following questions. I express my consent to answer the following questions and give permission to use the results.

Please sign your name:_____

1.   Your gender:

O   male   O   female

2.   The Mahopac Volunteer Ambulance Corp. is as efficient as it can be

O Strongly agree

O Somewhat agree

O Somewhat disagree

O Strongly disagree

3.   Do you feel the training you receive prior to going on the ambulance for emergency purposes is adequate?

O very adequate

O Somewhat adequate

O Adequate

O less adequate

O poor

4.   I believe that our response times to calls could improve?

O Strongly agree

O Somewhat agree

O Somewhat disagree

O Strongly disagree

		Strongly Agree	Neutral	Strongly Disagree
5.	The administration is supportive	O	O	O
6.	There is a lot of community support for this department	O	O	O
7.	People's opinions are valued	O	O	O
8.	A team effort is encouraged	O	O	O
9.	Training is offered on a regular basis	O	O	O
10.	There is a high turnover of personnel	O	O	O

11.   What do you think needs to be done for the MVAC to improve it's performance?

_____
_____
_____
_____

12.   How often do you respond to a call in a month?

    O   None

    O   1-5

    O   6-10

    O   11-15

    O   16-20

    O   20+

13.   I would encourage a community member to become part of this organization.

    O Strongly agree

    O Somewhat agree

    O Somewhat disagree

    O Strongly disagree

14.   How did you first learn about the MVAC

O   Another member

O   Family involvement

O   Recruitment opportunities

O   Other (please specify)_____

15.   What was your reason for joining?

O   Community Service

O   Pursue a career in the field

O   Social Component

O   Other (please specify)_____

16.   Rate how this organization meets your expectations. 1 refers to very dissatisfied through 10 which means very satisfied.

1   2   3   4   5   6   7   8   9   10

17. Are directives given in a manner that is clear and easily understood?

O Strongly agree

O Somewhat agree

O Somewhat disagree

O Strongly disagree

18. Is it clear who is in charge when you are on an emergency scene involving other agencies?

O   Yes

O   Somewhat

O   No

19. Do you feel the current equipment is satisfactory or would you like to see new equipment?

O   The current equipment work well and does the job

O   New equipment is needed

O   It does not matter to me

20. Do you feel the staffing is adequate on the emergency scenes?

O   Yes

O   Somewhat

O   No

C. Survey given to the stakeholders and patients

Consent form:

The survey involves answering some general demographics questions and some questions about your experience with the Mahopac Volunteer Ambulance Corp. The survey takes about *5* minutes to complete. The purpose of the survey is to help the Mahopac Volunteer Ambulance Corps assess itself. Your participation is completely voluntary, and your responses will be completely anonymous. The data I collect will be analyzed at the group level only.   You do not have to answer any question you'd rather not answer. There are no consequences if you decide not to complete the survey.

If you agree to complete the survey, please do NOT write your name on it, so we can keep patient privacy. After you finish filling it out, please put the survey in the envelope and then place the envelope in the box provided. By filling out the survey you are consenting to participate.

1. Gender

Male □
Female □

2. Age

    O   0-10

    O   11-20

    O   21-30

    O   31-40

    O   41-50

    O   51-60

    O   61-70

    O   71-80

    O   81-90

    O   91-100

    O   101-110

    O   111-120

3. How long have you lived in the community

    O   Less than one year

    O   Between 1 and 5 years

    O   Longer than 5 years

4. Have you ever needed to call for an ambulance prior to your last incident?

    O   Yes

    O   No

5. Would you consider your experience with the ambulance crew as

O   Positive

O   Somewhat positive

O   Somewhat negative

O   Negative

6-8. Rate the following from 1 (not professional) to 5 (very professional)

The crew 1   2   3   4   5

Crew interactions 1   2   3   4   5

Appearance of crew 1   2   3   4   5

9. Did you feel the crew arrived in a timely manner?

O   Agree

O   Somewhat agree

O   Somewhat disagree

O   Disagree

10. Did you find the ambulance crew to be knowledgeable?

O   Very knowledgeable

O   Somewhat

O   Less knowledgeable

11. The equipment on the ambulance seemed

O   Adequate

O   Less than adequate

O   More than adequate

12. There should be improvements to the ambulance equipment

O   Strongly Agree

O   Agree

O   Disagree

O   Strongly Disagree

O   Neither

13. The drive to the hospital felt safe

O   Yes

O   No (please specify)_____

14. The crew took the time to listen to you and addressed your concerns

O   I agree

O   Somewhat Agree

O   Disagree

O   Somewhat Disagree

15. The crew was able to carry/lift you without struggle

O   Yes

O   No

O   I Don't Know

16. The crew was able to respect my concerns and privacy

O   I agree

O   Somewhat Agree

O   Disagree

O   Somewhat Disagree

17 I feel the tax amount charged to me is:

O   Way too much

O   Right Amount

O   Not enough money

O   Doesn't matter to me

18. Did any other first responders show up to your location? If yes please check all that arrived:

O   No

O   Yes. Fire Department

O   Yes. Police Department

O   Yes. Paramedics

O   Yes. Members of the Mahopac Volunteer Ambulance Corp. came straight to my location

O   Yes. Other (please specify) _____

19. Once the crew arrived, they introduced themselves and identified themselves as part of the ambulance crew

O   Yes, they did

O   Some of the members did

O   No they did not

O   I do not remember

20. On a scale of 1 (very poor) to 10 (excellent) please rate your overall experience with the Mahopac Volunteer Ambulance Corp.

1   2   3   4   5   6   7   8   9   10

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Chapter 6

Terrorism in Russia related to Emergency Medical Services

I. Introduction

As a senior manager in Emergency Medical Services (EMS) who has been transferred to Russia. I have prepared a strategic plan to ensure enhanced safety and security.

There will be an outline of terrorist's threats in Russia. Also successful strategies used by agencies that have been similarly impacted by these threats. Lastly, there will be a proposed strategy that I would implement in this Russian agency.

As a manager of EMS in the United States we face many of the same concerns that the Russians do. We live in a world where threats to security can be domestic or global threats. Since they can assume many forms our aim in this agency is to fully prepare ourselves for whatever threat comes. Strategies that were developed in our Strategic Plan for the Mahopac Volunteer Ambulance Corps. will be incorporated into the emergency services in place. Russia, of course, is no stranger to terrorism and the havoc it creates. My aim is to mitigate the effects of an attack and to be pro-active in our preparation against perceived threats. Budget constraints are still an issue to be considered. Overall, we aim to create a resilient society prepared to deal with whatever happens.

II. Terrorist threats in Russia

Since the end of the cold war, Russian security and control over nuclear technology and weaponry has eroded with an increasing rate. Nuclear proliferation has increased among non-nuclear states. Since this proliferation has been very secretive it makes it more likely for these weapons to wind up in the terrorists' hands.

Noted terrorists expert and author, Jessica Stern, in her 1999 study of terrorism and Weapons of Mass Destruction (WMD) has looked at the issue of accounting for nuclear weapons and technology, has found that Russia has not been on top of monitoring where these weapons go. The military was not doing their job and what followed was a loss of their accountability and control of these weapons. Things have not improved. In 2002, Russian scientists said they would be open to working for countries that are WMD proliferators such as Iran, North Korea or Syria. Al Qaeda has been moving towards trying to acquire these weapons. Adding to the concerns is the growth of Russian organized crime coupled with serious security lapse over these weapons (Dempsey).

There is of course the threat that exists from Chechnya fighters who could capture or buy a nuclear weapon or materials from which they could make a nuclear weapon. If they were successful in getting their hands on such materials their first target would be Moscow. They are ruthless fighters who would be willing to sacrifice their own lives to launch a terrorist attack. In 2004, Chechnyan guerilla forces showed their extreme violence on Russia's border killing and wounding civilians without any hesitation. They have terrorized before even assassinating the Chechnya president. They have taken over a theater in Moscow and held 800 hostages for three days. So it is clear that the Chechnyan terrorists would use a nuclear weapon if they got their hands on it. Preventing such as occurrence is the end game here. Crude attempts to launch nuclear terrorism were tried by Chechnya separatists in 1995. The dirty bomb was not exploded but the threat continues. The Chechyan, who are poor and disenfranchised have been eager to embrace Islamic extremists.

The threat of a nuclear terrorists attack eminating from Russia is very high since it has more nuclear material than any other country worldwide. Keeping track of what materials are there and which have gone missing is anybody's guess (Graham).

One of the worst attacks in Russia occurred on September 1, 2004, when terrorists seized school no. 1 in the town of Beslan. The terrorists killed 17 adults in the first house of the siege and set up explosive devices around the school while putting the hostages in the gym. They wanted the Russian troops to pull out of the Chechnyan Republic. After three days, troops stormed the school killing hundred of people. All terrorists except one were killed. The military was criticized for their handling of the event where 186 children died. In August of 2008, Russian Prime Minister Vladimir Putin said that although significant progress has been made in counter-terrorism efforts, the country still faces threats.

Going forward Putin said that the major focus would be placed on the prevention of crimes that are reality to terrorism. "The sole priority of this work is to improve security for civilians" (Novosti, 2008).

Security breaches were seen at the Domodedovo airport on June 24, 2011. This left 35 dead including the suicide bomber and more than 100 injured. A lapse in security let the suicide bomber to mix with a crowd of people at the airport. Anti-terrorist security was not up the standard it should have been. It was noted that it should have been. It was noted that the Russian authorities should follow the United States and Israel in having better security since the level of terrorist threats are higher in Russia than in the United States.

There are many sources of terrorism in Russia. In the North, terrorism Caucasus radical, Islamist (Salafi) goes on with almost daily bombings, attacks and killings. A car bomb killed four people while injuring others in a café close to Chechnya.

Russian radical nationalists have been attacking and killing non-Slavic looking people in Moscow's street and rails. They also have detonated bombs in open-air markets. According to Deputy Chairman the Duma Security Committee Gudkov "there is an abundance of suicide volunteers in North Caucasus to blow up anywhere." He also said that Russian security forces are ineffective and have not gotten the needed intelligence to disrupt threats. Since most Moscovites do not use the airport that much, the impact of the terrorist bombing at the airport doesn't really affect them (Harding & Parfitt, 2011).

There is a history of terrorism in Russia. In December 2003, a Mercedes exploded outside the National Hotel across from Red Square killing at least 5 people.

February 6, 2004 a metro blast caused 40 casualties and hundreds of injuries from an explosion of 4 kilos of TNT. After this, video monitoring was put into the metro. November 27, 2009 four cars of Nevsku Express derailed while traveling from Moscow to St. Petersburg, caused by the detonation of 7 kilos of TNT killing 28 people and injuring 95. An increasing trend is to recruit more ethnic Russian Muslim converts to their cause. One such convert was thought have been part of a failed attack planned for New Year's Eve. This trend is worrisome to the Russian authorities since they are Russian converts to Islam and they embraced radical Islam and plot against their homeland (Newswire, 2011).

Another disturbing trend is the use of female suicide bombers. Two females struck the metro killing 38 and injuring 102. They are thought to have been avenging the death of relatives killed by Russian authorities. In 2004, two women are though to have brought down two Russian passenger planes.

With this pervasive and on-going terrorism in Russia, it is clear there needs to be a more comprehensive plan in place to prepare for and deal with the aftermath of attacks. Russia already sees that they need to take a cue from the United States to better track attacks to respond more appropriately when attacks do occur.

III. Strategy for a more resilient Russian Community in an age of Terrorism for Emergency
        Services Strategy

Since Emergency Services are the first responders on the scene of any tragedy, it is important to have in place strategies that will clearly manage any given situation.

One of the most important issues when dealing with emergency care in another country is that there will be different standards of care. We must ensure that the standard of care is acceptable and will be able to be performed with the equipment that is already in place. If we cannot, we must ensure that we can gain the updated equipment to better serve our patients. When looking at this position from an emergency management point of view, we must be able to take care of patients no matter what the circumstances. So during a terrorist attack we must have plans in place to be able to accommodate the potential for many patients. The level of care must be acceptable when dealing with people's lives. In the process of emergency services in Russia, we will need to meet with their Department of Health and other agencies to determine if the level of care is acceptable. This can take time, but it will be worth having a set standard. This will also

play a role in determining what equipment can still be used and what will need to be purchased

immediately and could be purchased at a later date. In order to prepare for these events an EMS

management system must be put in place in order to best command the scene so all the units

know the hierarchy of services represented at the site. Having clear protocols laid out to an event

lessens the confusion later as the event unfolds.

There will be a plan that can change and evolve as circumstances warrant. When assuming

this position, I would conduct a series of internal as well as external analyses. By evaluating the

assets of your organization and balance them against your deficiencies, you can begin to

formulate a plan that will move your organization forward.

Russia realizes that looking toward the United States for strategies will help them to handle

their ever-increasing terrorist threats and handle the aftermath of threats that are enacted. As in

the United States, the aim of our strategy is to create a community, or series of communities that

are resilient. Russia has suffered far more attacks than we have and yet they have not been able

to really put into place plans that will mitigate damage to civilians after an attack. Also, there

seems to be no plan of operation in the event of a major attack other than being reactive.

Starting with a meeting with the top emergency officers will start a dialogue to first see what

our challenges are and how to rectify this. We will identify our stakeholders as the citizens to

whom we owe good care in a timely manner.

Since there are very real threats of WMD or nuclear weapons we would put in place

extensive training to have the responders trained to deal with anything they many encounter.

There would be an on-going training to keep up with any scenario that might ensue. Having a

strategic plan that includes information about the organization, including strengths, weaknesses, opportunities and threats will be a very effective tool against terror. It helps the organization focus on key components such as the organizations mission and mandates (Bryson, 2004).

There will be a complete analysis of the times that it takes an ambulance to arrive on scene. Decreasing response times has a positive effect on the hospital outcome of patients.

There will be an updating of the communication capabilities of the crews and to have all agencies better coordinate while responding to incidents. When leaders of the other agencies coordinate and communicate there are better outcomes especially involving mass causality incidents.

Updating equipment is essential. The ability to use better equipment is crucial for patient care. There would be a complete analysis of what equipment is already being used and what would be needed. Always keeping in mind budgetary constraints as well as the mission to give the best care possible to all.

When we see the important issues at the hand in responding to terrorists attacks we can see where to send resources to "hot spots." Hot spots are activities with low resources input and high performance gains. Conversely, you can avoid "cold spots" where a high output of resources has a low impact.

IV. Conclusion

Coming into a country such as Russia is a challenge. But if we use the strategies garnered from smart practices in the United States we can effect a positive change.

Russia has been the recipient of many attacks. Some have had devastating results. Some have been thwarted. Even with being a target, Russia has been criticized for its response to these threats. Creating an Emergency Medical Service System that is continually updating and where training and re-training is key, would be a part of our ultimate goals.

Cultural differences aside the mission of any emergency service would be to provide the best care in the shortest time possible. This will have a correlation related to the patient care.

Since the Cold War, Russia has not been as diligent as they should have been in making sure that remnants of their nuclear programs do not fall into the wrong hands. They are more vulnerable to a nuclear or dirty bomb attack and to set this as a priority. Learning from our responses to such situations, we can impart to the Russian community a better, more effective way to deal with an attack by WMD's. Prevention is of course the aim but if there was an attack, the way we initially respond to this is very important. Using a strategy of quick response with updated equipment while communicating with other agencies can mitigate the damage to life.

V. Recommendations:

- update communication gear
- update technology
- reduce response times to the scene
- partner with other agencies to have a coordinated response to situations
- train and re-train to keep up with old and emerging threat date
- monitor data on threats to be prepared for what could happen such as nuclear, biological or WMD's

- elicit cooperation of strategies with countries such as United States and Israel who have been successful in responding to threats

- continue to grow and change to build a resilient community

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Chapter 7

Human Rights

Introduction

As the world continues to shrink and we are more of a global community, it is essential that our thoughts about human rights continue to evolve. Since 9-11, the United States has had to look at human rights and how concepts of human rights relate to homeland security. We are charged to keep our county safe and secure. However, we also need to balance our security concerns with human rights. Instead of competing with each other Human Rights and Homeland Security are complementary. States that systemically engage in human rights abuses at home are most likely to engage in international aggression. Human rights respecting states will engage in international interventions at least in part to protect the human rights in a state that seriously and systemically abuses the rights of its own citizens. Therefore foreign policy that actively advances in human rights around the world can enhance both national and global security by decreasing the number of states likely to engage in international aggression and the de-stabilizing consequences. It is not always clear how to do this and at what cost. As part of a free and open society, it is increasingly difficult to keep true to our beliefs while balancing the impact on safety (Burke-White, 2008).

My perspective on homeland security and its relation to human rights stems from my work at the local level. I serve as an Emergency Medical Services Captain, and it is incumbent for our department to give the best emergency care possible, while at the same time respecting the rights of those to whom we administer care. As part of a small community, we still have to prepare for any eventuality. We have many soft targets such as schools, hospitals, malls and

libraries that can be potential targets. We also have the nuclear power plants as well as the New York City Watershed, and as the Metro North System. So even though we are not in a large metropolis, the damage and destruction that an attack could render upon us could be just as devastating. Since the aim of any attack is to disrupt our feeling of safety and security. Terrorists look at these kinds of targets along with more well known ones.

This paper will show that human rights and security do not have to be mutually exclusive. But rather they can work in concert to bring about a community where rights are treasured and safety is preserved. America's strength has always come from her ability to mix a free and open society with respect for all.

I.   Defining Homeland Security and Human Rights

There is no explicit agreement on a definition for homeland security. Even as homeland security continues to evolve there are certain areas that are clear. Homeland security is a concerted national effort by Federal, state and local governments to prevent terrorist's attacks within the United States and to reduce America's vulnerability to terrorism while mitigating attacks that do occur. It is also a national effort to prevent and disrupt terrorist attacks from biohazards and respond and recover from incidents that do occur. Jurisdictionally, homeland security means something different at the different levels as local, state or federal. Social trends are watched to see if they can threaten our way of life. It is an element of national security that works with other agencies to protect the territory, population and critical infrastructure. So, in a way, homeland security is a group of parts that function together toward a single goal of safety. Of course, since we could not possibly prepare for every

scenario, homeland security must be adaptable and draw on past scenarios to solve problems (Bellavita, 2008).

Taking forty agencies and consolidating them into the Department of Homeland Security was not easy. The practice and regulation of homeland security came with the Homeland Security Act of 2002 with DHS becoming operational on January 24, 2003. It has five missions, terrorism, borders, immigration, cyberspace and disasters (Security, 2011).

Since the creation of DHS, there has been an ever-increasing look at human rights as it related to our security. To properly access information that will help ensure our security, we are active in many parts of the world trying to access information that will keep us safe. As part of this global society we are charged with getting what we need in an atmosphere of respect for others. It is a difficult line we walk when we are between human rights and our safety.

Human rights simply put are the rights people have from being human. It is fitting that those human rights be part of any policy regarding Homeland Security concerns. Human Rights are thought of as embodying a moral right of the highest order. If we do not approach security with a view towards human rights for all, then what are we securing? So to have a truly secure society, it must be one where the rights are respected and enforced. When we treat people with humanity, there is a fusing of a moral vision and political. The forward-looking moral vision of human nature provides the basis for social changes implicit in claims of human rights. Human rights have humanity as its source, and humans need established human rights. Human rights are not needed for life, but for a life of dignity. Usually human rights are not thought about too much until they have been violated (Donnelly, Universal

Human Rights in Theory and Practice, 2003). So the question for us is how to keep a safe, secure environment and not violate human rights in the process? Is it possible to have true human rights while having a strong homeland security perspective?

It is fitting that human rights have a place in our homeland security concerns. The United States National Security could be enhanced by a greater emphasis on the promotion of human rights in the United States foreign policy. Better Human Rights practices globally make the United States safer and more secure. Our foreign policy should make it clear to abusing states that human rights are a strategic priority of the United States Government. We can link foreign aid, trade and other benefits to improvements in human rights records. A foreign policy informed by human rights would closely monitor human rights developments so as to properly read signals and improve relations with states that institutionalize human rights protection (Burke-White, 2008).

II. Globalization, International Law and Human Rights

We can use globalization to reform the moral economy, promoting intolerance rather than tolerance for trafficking and sex tourism (Fein, 2007)

Since there is a proliferation of technology, globalization makes it easier to relay information. People who previously did not have access to information can find out about their rights and to talk to others in distant places. So the world becomes smaller and the disenfranchised have access to the world stage. In a global society, it is difficult if not impossible to keep any kind of human rights violations hidden forever. The global community can and has rallied around causes half a world away. Overall the good that comes from globalization

outweighs the bad. In her book, "Can Globalization Promote Human Rights" Rhoda Howard -

Hassman says that globalization is the second transformation, spreading capitalism around the

world. It impels a greater move toward democracy and that is the best system to protect human

rights.

Looking at globalization, we need to determine how to navigate in the realm of a global

society as global players. In a global society, where technology drives all information, it is

difficult, if not impossible to keep most types of human rights abuses hidden from the world. In a

global society people in peril have a greater chance of getting noticed and thereby hopefully

helped. The world has gotten smaller both economically and socially over all; we need to push

forward as global citizens to protect the rights of everyone across the globe. The states play a

major role in protecting and implementing human rights. In her book, "Can Globalization

Promote Human Rights?" by Rhoda E Howard Hassman, she states that globalization is the

second transformation and it spreads capitalism across the world. In the short term, it is much

more positive. It impels a greater move toward democracy and that is the best system to protect

human rights. Whether citizens enjoy their economic rights depends on how they enjoy their

political and civil rights.

Critics of globalization cite free trade policy as disastrous for the poor while others say it

is the best solution to poverty. Only social democracies can fulfill all aspects of their citizen's

human rights but she also warns of various aspects of human insecurity that are exacerbated

by globalization. Most important, long term changes are the adaptation of market economies

and political democracy as in South Korea (Howard-Hassmann, 2005).

International laws are part of this globalization because it sets up laws that bring us closer together and we are more connected. We look at bodies such as the United Nations to respond and deal with trafficking, slavery and genocide. The resolve of the international community has been mixed in responding to ethnic cleansing or genocide. In Bosnia, the international community was criticized for doing too little, too late. But they did not sit ideally by like in Uganda and Cambodia. The United Nations enacted arms embargo, economic embargos and diplomatic efforts. Peacekeepers were sent to protect civilians and bring in humanitarian assistance. The United Nation Genocide Assembly adopted the convention on the prevention and punishment of the crime of genocide on December 9, 1948; the day of the Universal Declaration was adopted (Donnelly, International Human Rights, 2007).

After a special session, the United Nations sent an appointee to Bosnia. He confirmed there were massive human rights violations. These initiatives were responses to the genocide rather than stopping it. The United Nations Commission on Human Rights tried, but the problem was states would not confer more power on multi-lateral human rights institutions. International humanitarian responses in Bosnia were not willing to see the peacekeeping forces, as merely there to prevent was crimes. The Serbs saw them as hostile and kept them from their objective.

The core concept of the United Nations when its charter adopted was that the Security Council would act for the maintenance of international peace and security. Alongside this, the organization would promote development and the universal realization of human rights. Peace, justice, respect for human rights and economic and social progress is an inter-locking relationship was and remains, the vision of the United Nations. As we examine Rwanda, it is clear that the United Nations' vision was not realized. The world stood by as 750,000 people

were butchered. Information was available, yet nothing was done. Its members control the

United Nation as an intergovernmental organization. Four of the permanent members exposed

United Nations action. Political pressure stopped intervention. Since the slaughter was so low

tech even a few thousand troops could have made a difference. The International Community did

not have the resolve to end the genocide. International law and enforcement mechanisms are

important when we talk about homeland security because the right to life is basic in both

domestic and international law and all other human rights become meaningless if basic right to

life is not duly protected (Ramcharan, 2004)

Lessons were learned from Rwanda. In Kosovo, humanitarian intervention was both

possible and necessary. There was a strong resolve to act and the outcome was better. When

great powers such as the United States stand by in the face of such obvious humanitarian

violations, it lessens our stature on the world stage. We are the only superpower left in the world,

so it is incumbent upon us to lead from a place of moral strength and leadership so that other

countries will see that we stand up for our convictions. To do less would cause us to appear weak

and lacking a clear moral vision in the world. Today, we have well-established norms and clear

practices by the Security Council for authorized humanitarian intervention against genocide.

On the world stage, the United States has always had problems with the ICJ

(International Court of Justice). The United States supports the rule of law throughout the world.

The United States participates in cases before the court, but the US has been unwilling to stand

before the court itself. The US has reacted poorly when the court has been adverse against us.

Some of these feelings come from America's exceptionalism, whereby the US feels formally and

informally it should be differently viewed from other states. The US pulls toward the court

whereby all states are equal under the law but pushed away when the court does not see America's special role in maintaining international peace and security. Unelected judges who issue decisions from afar is of great concern. We see our role as a leader on the world stage.

These reservations send a message to the world that the United States will only participate in the World Court if the parameters they set up are adhered to. It does not put us in a positive light as global partners with other countries. This view of the United States has served to strengthen the court's position among most of the states of the whole, while alienating the United Sates. That is why it is so important for the United States to be aware of and participate in international regimes and particularly international human rights regimes. The authority of multi-lateral intervenes arises form legal, political or moral recognition by the political communities that the organization represents (Donnelly, International Human Rights, 2007).

Since the end of the Cold War there is no other super power like the United States. We always have the option to act unilaterally but acting in cooperation with other nation-states gives us more standing as global partners. Our strength as a nation comes from our Constitution and the rule of law. This would never be usurped by any other law. We need to be mindful of human rights. We need to strengthen the human rights regime; and, we need to do this within the international legal framework without fear that American law will be usurped.

III. Implementing Human Rights into our Foreign Policy

America's foreign policy has ways held human rights in high regard. But exactly where it was in importance had a lot to do with what President was in the White House. In 1984-1985 Americas Watch Annual Report said that the censorship, political jailing, due process denials,

holding prisoners in incommunicado and forcing relocations existed in Nicaragua. However, the

Reagan administration did not place Human Rights as an immediate concern to dictate foreign

policy. The policies were a continuation of what was perceived as the struggle with the Soviet

Union. Even though Carter spoke on human rights as the heart of his foreign policy, human

rights protection really was a secondary goal.

In today's politics, states see that global concerns such as human rights as too vast and

complicated to be managed alone, regardless of the power. Multilateralism has been accepted as

an approach to world politics and international relationships. Laying the groundwork first is the

best approach as a policy. No country can rule out unilateral action in cases that involve their

vital interests.

While multilateral approaches to issues are preferred, there are times when a unilateral

approach may be called for. Russia and China had prevented the Security Council authorization

of intervention to stop human rights violations in Kosovo in 1999. The United States went ahead

without Security Council approval it was not totally unilateral since it was carried out with

NATO support (Donnelly, International Human Rights, 2007).

The United States has always stood on its principals as a light of freedom. We will try to

form coalitions and alliances to further human rights across the world. But we must also know

we are prepared to shoulder the burden alone if need be. Foreign policy should perpetuate our

strong allegiance to take the principles of human rights in every statement we make. We must set

our country up as a world leader, not only in words but also in actions. An example can be seen

when the United States links human rights and development assistance. It tends to base initial

foreign aid decisions on political and humanitarian factors, modifying allocations at a later stage in light of human rights concerns (Donnelly, International Human Rights, 2007).

We have used various methods to encourage compliance to human rights violations. As seen in South Africa's Apartheid policy, America's use of an economic approach to solve problems was effective. To translate that success to other places would have to be on a case-by-case basis. Business goals internationally do not have to work against human rights goals. Terrorism has changed everything when it reached our soil on 9-11. Less concern was put on human rights. People's sense of security had been taken from them and now the main concern of the United States was foreign and domestic policy. With the introduction of the Bush Doctrine, which said, we cold preemptively attack a nation to prevent an attack on the United States. As Fitzpatrick has legality has been harmed because of the war on terror, which uses preemptive strike strategy. We put into our foreign policy that there need not have been an act of war perpetrated upon us, but merely a threat of something as demonstrated in our war in Iraq (Fitzpatrick, 2003).

In the long term, we see that human rights could be damaged. We need to hold ourselves up as a beacon of what is right and moral and not compromise our principles because we are reacting to problems that exist in the world. Donnelly has said that the war on terror has provoked a one-dimensional ideological campaign that has marginalized human rights much like the way against Communism had done in the Cold War. Terrorism at its core violated that right that citizens have by virtue of being human and so you are entitled to exist in a free society where your life's integrity is respected. Those who choose to undermine this are terrorists.

We recognize that terrorist acts are perpetrated on states that represent an ideology against recognized states. These may be groups or individual who act on their own to promote an agenda while causing chaos in the process. Jason Burke, an expert in Radical Islamist activity, has said that there are many ways to describe terrorism and all are objective. In the 21st Century terrorism can be a tactic used to disrupt electronic systems, which could cause as much if not more chaos than an attack in the more traditional way. In 2002, the United States National Security Strategy defined terrorism as "premeditated, politically motivated violence against non-combatant targets by sub national groups or agents." The definition of terrorism is incomplete and evolving. In 2011, Dr. Sergey Zagraevksy characterized terrorism as the dirtiest weapon of the weak against the strong.

IV. Democratization – Is this the key to freedom from Human Rights violations globally?

According to Fein, many theorists see democracy as a path to peace. In liberal democracies human rights violations disappear because there is a respect for life integrity. Liberal democracies are inclusive and people are free to voice their opinions without fear of reprisal. In democracies violations against life integrity would not be tolerated and would be easily exposed to others. It was seen that political imprisonment declined after the Cold War and it was related to democratization. When people operate in a free society when they can earn a decent wage and live the way they choose, there is a greater respect for life integrity. When there is a free exchange of ideas, people are not jailed for speaking out against authority. So, respect for life is the motor leading to freedom and inclusion of all people is the social contract. Democracy is a process and not a state of Utopia.

People have moved toward democratization in different ways. Civil disobedience has led revolts from Civil Rights in the United States to uprising such as seen in the Arab Spring. People inherently know that to be treated fairly and to be respected, we must be free. Any society that has oppressed its people will not stand up to the test of time. Leaders must rise up and help create a culture that appreciate and support. Human Rights, including women and protecting even unpopular minorities from others, must be fortified.

Education is another catalyst to human dignity. States where all people are educated live with more dignity than those who quantify whom they educate, especially women. When education is available to all, the spread of democratic ideas is more possible and the threat of human rights violations lessens. Underdevelopment and exclusion of women from civil life is related to violence against women. When all people are treated with respected in a democratic society, there can be a true respect for human rights.

Democracy is a pathway to respect for life integrity. Democracies start small and evolve. Members of the past regimes do not always accept this change and will inflict reprisals against their former underlings and will also try to sabotage their efforts. As seen in Rwanda (91-92), premature elections spurred deadly competition and violence. Steps toward democratization in Rwanda spurred genocide by having radical racists poison public opinion over the radio. New democracies are fragile and some have problems trying to overcome their past and pick up the banner of human rights for all. Unrest can arise when the populous does not feel their needs are being met and thus may revert back to their old ways. But as headway is made and the economy grows, people see that their choice for democracy can take hold.

V. Conclusion and Recommendation

Human Rights in theory seem like a simple idea. People should have the rights to live as free people and not be subjected to policies that abandon their humanity. However, securing these rights for all can be very difficult. Some governments seek to use their power against their own people to keep them under their control. Abuses can be tremendous in scale as in Bosnia, Rwanda, Kosovo, Iran, Iraq and others. But the question arises when does a superpower like the United States intervene to stop such abuse? In some cases, we have been there to mitigate the harm that was inflicted, in other cases we have turned away and chose to act only when forced to. We are one people, part of the global community. We are morally obligated to intervene when the need arises. This intervention can take the form of embargos, or other means that can hurt the nation involved, forcing it to make changes. We can, as part of the United Nations, send people in to monitor abuses and thus make sure that they are being complied with. We cannot turn away from genocide or human trafficking and think we can live a life of dignity. Reaching out to those who are oppressed elevated us too.

Security becomes another area of concern to free nations everywhere. We have seen how terrorism flourishes in place where people are made to be less than human. When we have democracies, there are far less reasons for human rights violations. Thus we can all feel more secure because those who would seek to harm us would be lessened. Because democracies depend on building coalitions the need to repress and torture should diminish. Democracy is inclusive in contrast to totalitarian governments in which some groups have no rights. Democracy also deters violations against life integrity because they are more easily exposed. Authoritarianism diminishes respect for life integrity and discourages free thought. The

exclusion of women from participating in society denies the society the benefit of their

participation. Failed states produce life integrity violations that reinforce poverty and diminished

development. To promote successful democratization, there needs to be more emphasis of gross

human rights violations. All people need to be included in the social contract that would benefit

all. Respecting the rule of law in addressing crimes lessens the eventuality of those crimes

continuing (Fein, 2007).

This translates to the local level. We are part of the counter-terrorism strategy to protect

the United States from terrorists. We prepare for any scenario from cyber-terrorism to WMD"s

or attacks. On the ambulance, we are faced daily with questions of human rights. We are charged

to look at all people as deserving of care. There is not any tolerance for any type of

discrimination. We may pick up people who we may think are here illegally but we treat them as

we would anyone else. As Thomas Pogge states, we all have a duty to promote and protect

human rights (Pogge, 2000). There is a balance to be struck between instituting an atmosphere

for human rights, while at the same time keeping us secure. We at the local level see this and are

aware of the importance of such policies.

From my perspective, in emergency services we deal with threats that filter down to us at the

local level. We are charged with having plans in place to use against actionable intelligence. No

place is immune from threats. As a suburban community our proximity to New York makes us

ever cognizant of the fact that terror can travel at the speed of light. Weapons of Mass

Destruction, cyber-terrorism as well as an attack on a soft target are things we have on our mind.

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Chapter 8

Intelligence Gathering and Planning

Introduction

The following report is designed to put in place a plan of action to mitigate the effects of a Mumbai – like threat on the jurisdiction of Putnam County, New York. Our stakeholders, who are defined as a group or organizations that can affect or are affected by the actions taken, are the community of Putnam County, New York and its neighboring counties (Wholey, Hatry, & Newcomer, 2010).

Partnerships were forged with federal, state and local officials that created a plan that will have a positive outcome for the community. Key stakeholders were involved in the planning, execution and evaluation of this scenario.

Homeland Security Intelligence (HSINT) was used to determine what intelligence should be shared, with whom and how fast. Department of Homeland Security should be a link between federal intelligence agencies and first responders deciding which threats should be passed on, so first responders were not flooded with information (Lowenthal, 2009).

We also evaluated active shooter scenarios such as the ones in Mumbai, Norway, and Phoenix to analyze the relevancy of such attacks to mitigate the effects in our locale.

Threat Assessment and Plan of Action for Mumbai like Attack in Putnam County

This plan would primarily outline the role of emergency services in such an incident. However, some of the responsibilities may overlap with other agencies.

To: Office of Emergency Management, Fire, Police, Emergency Medical Services in Putnam

County and Neighboring locales of Westchester, Rockland, Dutchess and Orange Counties.

Subject: Actionable Intelligence as it relates to known shooters who may stage a Mumbai-like

attack on a "soft target" in the area of infrastructure.

Purpose: To create a plan of action to mitigate the effects on the stakeholders in our community.

Soft Targets: Identified as hospitals, schools, shopping malls, train stations, libraries, community

centers and banks.

Hard Targets: Bridges, NYC Watershed, electric substations

Known Threat: HSINT has received intelligence that a Mumbai-like attack could be perpetrated

upon our locality by a shooter or shooters to cause chaos and casualties. These terrorists are part

of a home group of zealots associated with anti-Zionist factions in the United States with ties to

the Middle East.

Unknowns: HSINT has not received that the exact number of people involved or when this

attack could take place. But the source is credible enough for us to put plans in place and update

others already in place.

Resources

Local and State Police Departments

Putnam County 911

Local ambulance and fire departments paid and volunteer

Medical Reserve Corps activated

Emergency Coordinators

Hospital and notifications

Overlapping Services

Engine Company and EMS would share responsibilities in an armed attack or small explosives and chemical component.

Command Structure

The National Incident Management System (NIMS) is a structured framework used nationwide for both governmental and nongovernmental agencies to respond to natural disasters or terrorist attacks at the local, state, and federal levels of government. It also provides a systematic, proactive approach to guide departments and agencies at all levels of government, nongovernmental organizations, and the private sector to work seamlessly to prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life and property and harm to the environment.

There are six (6) components included in NIMS:

• Command and Management

• Preparedness

• Resource Management

- Communications and Information Management

- Supporting Technologies

- Ongoing Management and Maintenance

Effects on New York States EMS System:

- Institutionalizing the use of the Incident Command System (ICS). (Encourage adoption of

     local resolutions that require ICS for incident management);

- Formally recognizing the NIMS and adopting NIMS principals and policies. (Local

     resolution);

- Establishing a NIMS baseline by determining which NIMS requirements are already met using

     the NIMS Capability Assessment Support Tool. (NIMCAST); and establishing a

     timeframe and developing a strategy for full NIMS implementation using the NIMS

     Implementation Template. Compliance Assistance Support Tool (NIMSCAST). The

     National Integration Center designed the NIMSCAST as the premier self-assessment

     instrument for Federal, State, tribal, and local government to evaluate and report their

     jurisdiction's implementation of NIMS (Government, 2011).

The responsibility of the Emergency Medical Services Division would be:

     -respond to the attacked area and begin triage

     -command center- crisis leader. Crisis leadership differs from routine leadership. A crisis

leader would have a flexible mindset, be expert in multiple types of operations. He must be able

to take command of personnel. He must be a risk taker and be able to adapt as the situations

unfold.

-request the additional resources that are needed

-notify hospitals

-treat and transport patients to the appropriate hospitals

-debrief

-all 911 calls are processed at the 911 centers

-activate local agencies, police, fire and EMS

-first arriving personnel will set up a command center. Within the command center will be the crisis leader.

The command center will be as specified by the NIMS ICS Systems.

-Expand perimeter as incident grows.

-first ambulances will triage and request more EMS and Paramedics with additional ambulances

-once the incident is declared as a mass casualty, the county emergency coordinators are notified and can respond. They will assist with the command structure as well as back filling the agencies that are being stripped of their apparatus.

-fire crews will be needed to search and check for fires

-the Medical Reserve Corps (MRC) can be activated to assist with the treatment of EMS patients and shelters as needed

-use of technology to keep everyone apprised of the situations as they evolve.

-since this is a two or possibly a three-site attack, EMS will disperse aid as needed among the sites of the multiple attacks.

-the commanders will decide how to move personnel to be effective.

-lines of communication must remain open among all the sites

-mutual aid will be critical to manage the attack as agencies become overextended

-when the incidents have concluded and the sites are secure, the commander will notify the centers that the threat has passed

-debriefing of the EMS officials on and off site will occur to further strengthen EMS's response to this type of multiple site shooter events.

EMS must be flexible and able to first recognize that this is an extraordinary situation. These must be treated differently. Failure to recognize that a crisis exists will further hamper efforts to mitigate its effect. There is no substitute for planning and training. But there is also a critical need to be flexible as events unfold. After any incident, debriefing is another important component of this plan. It is only after going over what worked and what did not can our skills improve. As first responders it is incumbent upon us to be at the ready for any event. Past attacks and events worldwide must be analyzed and seen as potential threats on American soil. No one is exempt from this whether it be big cities or small towns.

<u>Mumbai, Norway and Arizona Relevancy to our plan:</u>

As stated in the introduction an analysis of Mumbai, Norway and Arizona attacks were conducted prior to creating our plan of action. The following shows the principals, ideology, Al Qaeda affiliations, their modus operandi and India's short and long-term responses. The attackers came to India through Pakistan. The perpetrators were probably members of the Pakistan based Lashkar e Taiba (LeT) terrorist group. They have been designated a Foreign Terrorist Organization (FTO) under the United States Law in 2001. This group seeks Islamic rule in all of Kashmir and also is a proponent of broader anti-India and anti-Western struggles and is the armed wing of a Pakistan based anti-United States Sunni organization formed in 1989. They are said to be closely aligned to Al Qaeda and the Taliban wanting to expand to global jihad. They openly operate in Pakistan even though there was a 2002 ban. The LeT's modus operandi in the past had been to launch multiple attacks involving well-coordinated movements by gunmen who took hostages. The involvement of LeT was supported when the surviving gunmen admitted to ties and training by LeT. He also said that the Mumbai operation was launched from Karachi's port in Pakistan. The motives are not totally known to us but radical Islamist leanings played a big role in the attack. A goal-oriented effort f LeT is to defeat the United States Military and restore Taliban rule in Afghanistan. Another goal of the LeT is to conduct a global war against "American –Zionist Hindu" axis (Kronstadt, 2008).

The attack itself was extremely well executed and complicated. The terrorists had used very detailed reconnaissance to launch their attack. The radicals relied on surprise, confusion, and overwhelming the authorities. This was a prolonged attack that required determination by the perpetrators to make the attack a successful undertaking. The terrorists landed by sea and were

heavily armed with AK-56 automatic assault rifles with a magazine of 30 rounds. They were prepared for the long haul. They also had IEDs. The plan was to launch multiple attacks at different locations to keep the authorities from getting a complete picture of the situation as it unfolded. When they incurred return fire they moved to another target. There were four teams of men. Their purpose was to kill as many as possible. They focused on soft targets some with high emotional value. For 60 hours Mumbai was subjected to a terrorist attack that was broad in scope and well executed (Rabasa, et al., 2008).

India's response was not up to the challenge presented by the attackers. The Police force has a few competent members to service the citizenry. There is a very low police to population ratio. In the short term, the Home Minister did not order the elite National Security Guard Commands be deployed until 90 minutes after the attack had begun. Most of the hostages were dead before the commandos arrived. Two days had lapsed between the engagement and the conclusion of the event.

In the long term, the attack brought to light the need for better counter-terrorism in India. Intelligence was available prior to the attacks but how actionable it was is not clear. There are efforts in India to reform the system but it is slow. A few hundred officials actually specialize in counter-terrorism. The Indian Coast Guard has fewer than 100 boats to patrol the coastline. Poor funding and working conditions also impede intelligence operations.

India has vowed to establish a federal investigative agency, bolster air and sea security and create multiple bases for commando forces. The Indian Parliament passed two major pieces of legislation after Mumbai. The National Investigating Agency Bill and the Unlawful Activities Prevention Amendments Bill. The Prevention Bill is supposed to help with investigation and

trials of terrorism cases. It would also restrict the flow of finances to help terrorist activities. In the long term it is unclear how successful India will be due to its severe lack of resources. However, dealing with their inadequacies is a step in the right direction (Kronstadt, 2008).

As shown in the movie "Terror in Mumbai" the multi-pronged approach by the terrorist's threw the Indian police force into chaos. The police were disorganized, confused and very poorly trained to combat this assault. The police had no plan and when there was a counter-attack by them; it was poorly executed and delayed. The police watched the Taj Hotel attack on CCTV for several hours. At the women's Hospital, by the time the head of the Anti-Terrorist Squad called for backup the gunmen had already left the hospital. The terrorists even took the police car and wounded police lay dying in the streets. The orders given did not lead to action. Only after extensive delay 400 commandos cornered the gunmen. This was 24 hours into the attack. By the end of an almost 60 hour siege there was 170 dead.

Prior to 2008 there had been attacks in Mumbai. In 1993, terrorists targeted the Taj Hotel and the Bombay Stock Exchange. In 2006, 257 people died in 13 bomb blasts across the city. Bombs would have been more effective in 2008, if the body count was the sole criteria. LeT wanted to hold the whole country hostage on the world stage (Zaidi, 2009).

Even following the 2008 attacks, in July 2011 terrorist's bombings occurred in Mumbai. This was likely done by Islamist terrorist militants and demonstrates that Mumbai remains a target for terrorists (Kronstadt, 2008).

It is relevant to examine Norway and the Arizona attack to glean information to prevent, preempt and if necessary mitigate the effects of such attacks. In Oslo, Norway in July 2011 a

homegrown terrorist set off an explosion in Oslo before going to a summer camp dressed as a

police officer to launch a killing spree which resulted in 80 deaths. The attacker was a lone

gunman. He was a 32-year-old Anders Behring Breivik. He was not believed to have been linked

to any terrorist organization. Because he was dressed as a police officer, victims did not realize at

first that he was the one responsible for the shootings and thought he was there to help (Perez &

Barrett, 2011), (Associated Press, 2011).

In the case of the Arizona shooting, here again was a lone shooter who had brought

ammunition at one Wal-Mart hours before the shooting. He was turned away at another Wal-

Mart before that. Jared Lee Laughner's rampage left six dead and injured fourteen others,

including Representative Gabriella Giffords of Arizona. Another one of his victims was a federal

judge (Perez & Barrett, 2011).

The relevance of these two shooters is that one lone gunman with guns, ammunition and

a plan that can inflict carnage anywhere. As in the case of Mumbai, where there were 10 gunmen

who held a city hostage, these perpetrators were on a mission for their cause. All these incidents

occurred in different parts of the world but the results are the same, to cause chaos and

uncertainty in the populous. Your sense of security is undermined when you think that one or ten

gunmen can perpetrate such violence at any time. So it is incumbent upon us to process the

information to structure plans that will mitigate the effects or stop them entirely.

As discussed by Lowenthal there are seven phases of the Intelligence process. Identifying

requirements means defining how issues have a priority over others, collection of information

that must undergo processing and exploitation before it can be called intelligence, analysis,

production, consumption and feedback. A multi-layered Intelligence process is the best way to

gather, analyze, disseminate and consume intelligence. All of these go back to feedback at any

point. It is better to have an open-ended process (Lowenthal, 2009).

Lessons of Mumbai – How to Prevent and Mitigate Threats

    -Sharing Information:

        -In the Homeland Security Act of 2002 Section 892 tells us how to facilitate

homeland security information and sharing procedures. Procedures are set up to ensure that

appropriate state and local personnel are authorized to use the information sharing systems

especially as it pertains to potential terrorist threats. So sharing of information with local

authorities is important in the cycle of terrorism prevention. Partnerships are encouraged

between state and local personnel such as JTTF of the FBI, Anti-terrorism task force of the DOJ

and regional early warning groups. Nothing in the Act authorizes any department to use

information collected by the Federal Government solely for statistical purposes as related to the

confidentiality of such information (Law, 2002).

    -Training

        -As seen in the Mumbai attack, lack of training essentially crippled the police. In

the film "Terror in Mumbai", it cites that such an attack can be adapted to any American city.

The police were untrained and so could not launch a counter-attack against men with automatic

weapons. They were outgunned and under-trained.

There was no actionable plan in place that could be followed in this scenario. The police

failed to take charge and its cost lives. So it is necessary to train, and re-train personnel to have

the best outcome possible. Personnel must have the ability to think "outside the box" to make changes in the field.

-Improve communication between the field and the Operations Center. When there is communication among the players, strategies can be changed on the spot to accommodate the evolving chain of events. As in the Mumbai there was extremely poor communication with the police department. On the other hand the terrorists were using cell phones to get orders and proceed. They were even able to watch events as they unfolded on television. September 11 also highlighted the need for the best communication possible. Lives are lost when people on the ground cannot gain access real time information to have a good outcome. As technology changes we must keep up to date, since the enemy becomes more adept at using technology to their advantage (Zaidi, 2009).

-Plans must be in place. It is essential that all departments such as emergency workers, fire and police use drills to prepare for any event and to be able to adjust these plans if events change. A group of Rice professors have applied methodologies from computer science in the areas of artificial intelligence and bioinformatics to the issue of terrorism. Mumbai has represented a test case to better understand the theory of transnational terrorism. This will help see who could pull off such an attack in the future. The use of computer technology will be important in the future of terrorism prevention. Academia and governments must develop new tools to cope with information overload (Government, 2011), (Bronk & Ruths, 2008).

-Increased government attention to the Role of the Public. Americans can become victims of terrorist attacks if not physically but from the disruption economically and psychologically. Public support is critical in a crisis for emergency response and long term recovery. There is a

need to educate the public in risk education to provide security and to translate risk awareness into actions by having the public be prepared. Risk education preparedness and warning improve the public's ability to respond in ways that reduce loss of life (Dory, 2003).

-Partnerships between public and private sectors are imperative and need to be developed before an incident occurs to help with the flow of information and ensure the data given to first responders is accurate. The 9-11 Commission Act of 2007 created voluntary sector preparedness accreditation and certification. Programs for companies to be certified as complying with voluntary preparedness standards are in place.

-Soft Targets. There is a need to shore up soft targets and use employees to more fully improve our strategy. First responder's roles need to be clear. They arrive often before the police. National Infrastructure Protection Plan (NIPP), Department of Homeland Security provides sector developed best practices that will improve our ability to deter attacks, respond and recover in a crisis.

-A global trend of 2025 says terrorism is unlikely to disappear by 2025 but its appeal could lessen if economic growth continues in the Middle East and youth unemployment is reduced. As seen in the movie "Terror in Mumbai" these shooters were recruited because there was a lack of opportunity for them and saw jihad as a way to help their families. When we improve opportunity for all, this will lessen the amount of terrorists that can be recruited (Fingar, 2008).

-There should be a shift in the Intelligence Community to use Analytic Transformation (AT), which seeks to shift intelligence operations into greater collaboration. We need to improve

the quality and utility of intelligence to transform how we approach analysis, how we deal with information, how we manage what we collectively know and how we interact with collectors, consumers, and each other. We need intelligence that is useful. AT incorporates near term efforts already underway and longer-term concepts just beginning to turn into concrete initiatives (Fingar, 2008).

- If meta-intelligence was used in Mumbai there could have been more comprehensive coordinating of disparate information and compelling perspectives. Meta intelligence can be more arduous but the rewards can be great. When a web of Meta intelligence is created, a move to action is possible. This will make the nation more secure.

Conclusion

Putting together a plan of action for an impending attack has to take into account many variables. Leadership, planning, re-planning, training, and re-training are essential elements. Also there must be a discussion or debriefing afterwards to evaluate your plan. Looking at other similar attacks that have transpired before can help us use the information to forge a successful plan.

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Chapter 9

Multi-disciplinary Approaches to Homeland Security Related to Emergency Medical Services

    I.   Introduction

    We are aware that our country can be impacted by many events. They could be natural disasters, or

terrorists in nature. But regardless of the source of the chaos the one thing that is clear is that we need to

foster communities that will be resilient and able to cope with any occurrence. The question then becomes,

how cane we best have resiliency in a complex environment. When there is a catastrophic event it as been

seen that the previous ways of dealing with the event may not work as well as it should. No longer can we

prepare for any scenario in isolation. So we need to move toward fostering a multi-discplinary approach to

preparing, preventing, mitigating, responding and recovery from any event. Having the end goal of

building a community that is resilient to disaster is very important as we move forward into the 21st

century. We have seen examples of when communities work together in concert across sectors that there

are better solutions to problems. But to accomplish this in a real, substance way will take a lot of work. It

is not always easy to have people collaborate a way that will effect changes and increase resiliency in the

process.

    Using the top-down model of management would not be a successful way to reach these new

goals. In a mega-community where collaboration is key will require leaders to re-think and change the

way they may have managed an organization in the past.

    The scope of Homeland Security is far reaching. It encompasses reducing terrorism

vulnerability as well as recovery from such an attack with the least amount of damage possible. It also

includes FEMA (Federal Emergency Management Agency) which deals with natural disasters mainly.

Facilitating a new style of leadership that encourages cooperating among leaders in other sectors and

organizations will help leaders see that the mega-community lessons that we learn can be applied at every level of the tri-sector interaction of government, business and civil society. We have seen that economic and societal consequences of a world that is every more connected (Gerencser, Van Lee, Napolitano, & Kelly, 2008).

So using the mega-community concept can help us address issues that are ever more complex and interdependent globally. Good leaders are always looking for new ways to create partnerships with greater multi-sector interactions. The collective leadership model of the mega-community where issues are addressed will reduce the complexity of the issues at hand. This model will help further the global goals of sectors to remain resilient and to encourage cooperation when dealing with issues in a new way where there is room for many views and solutions.

II. Interdependencies

Mega-communities might constitute a shift in thinking for approaching ways to keep our society resilient to anything from natural disasters to terrorist attacks. No longer can one agency come in and fix the problem. As has been seen in the past crises such as Hurricane Katrina depending on one agency such as FEMA can be problematic. However, lessons can be learned from what transpired after Hurricane Andrew in Florida. It was apparent to Florida leaders that no single agency could manage such a catastrophic event so they moved toward what was seen as a new approach namely to each out to the sectors of public, corporate and non governmental and faith based to plan for the future events. A change in planning and consequently a change in their relationships with each other ensued. Future events made it clear that this form of collaboration among government, business and civil organizations provided the quickest relief and recovery for victims. This new model gave rise to what is called the mega-community. Mega-communities are communities of organizations that cross sectoral boundaries

to achieve results that would be impossible to achieve along. This model requires a change from leaders

of the various organizations (Gerencser, Van Lee, Napolitano, & Kelly, 2008).

The mistake in crisis planning comes from thinking any one agency along can manage a large

scale crisis.

According to the National Security Strategy of May 2010 regarding strengthening security and

resilience at home, the United States is pursuing a strategy capable of meeting the threats and hazards

to our communities. These threats can include terrorism, natural disasters, cyber attacks, and

pandemics. Prevention is key but it is also coupled with mitigating the effects if something where to

occur. So security at home depends on shared efforts to prevent and deter attacks, protecting critical

infrastructure, key resources and cyber space. To achieve this, the United States works with global

partners as well as domestic partners. There is a development of coordination at home across Federal,

State, local, tribal, territorial, non-governmental and private- sector partners as well as individuals and

communities. The aim of this is to improve our resilience through increased public – private

partnerships. By frequent engagement between communities and citizens, we can provide clear

information to the public. These efforts will ultimately empower Americans to be resilient in whatever

crisis may occur (The White House, 2010).

FEMA also recognizes that all aspects of a community (volunteer, faith based, community

based, private, public and survivors themselves) not just government is needed to prepare for, protect

against, respond to and recover from and mitigate against any disaster. They note that working together

will increase overall well being of the community. Building community resilience requires emergency

managers to plan for the needs of the whole community. A whole community approach to emergency

management recognizes that it must meet and understand all the needs of the community as well as

strengthening the assets to improve resiliency with better outcomes. FEMA has expanded its outreach efforts to establish relationships with new members to affect these ends (FEMA, 2011).

So in the mega-community a collaborative effort that shares risks, rewards and responsibilities can bring leaders across sectors to make the best plan possible. Having all the stakeholders present at the table making plans will help ensure a better result for all. The mega-community does not require any sector to compromise their own unique priorities but rather takes advantages of self interest to further the goals in a dynamic atmosphere of respect. Building community reslience requires emergency managers to engage effectively with and hosistically plan for the needs of the whole community. By development of training and educational programs that includes business, governmen and civil sectors we will streghten our resiliency.

As the PPD-8 National Prepardedness of March 2011 states "our national prepardness is shared responsibility of all levels of government, the private and non profit sectors and individual citizens. Everyone can contribute to safeguarding the nation from harm. So this direction is aimed at facilitating and integrated all of the nations capabiliites based approach to preparedness. This national preparedness system will allow the nation to track the progress of our abiliity to prevent, protect, mitigate, respond and recover from threats to our secuity as a nation (President, 2011).

Emergency Services could spearhead a plan for action. This plan would include integrated planning:

-inter-agency operational plans

-all sectors will be represented and contribute to the plan

-there woul dbe an ability to share personnel when needed

-there would be an assessment and re-assessment of the plan by all the sectors

The mega-community concept works well to enhance a multi-disciplinary approach the three spheres of business, government and civil sectors. This shift in thinking engages vital stakeholders with a sense of common goals and recognizes the common values among organizations in other sectors building relationships and continually assessing who might be important stakeholders. It is a more holistic way to think and build inter-organizational ties. By having all the stakeholders present and accounted for we can ensure a more resilient community. What is unique in a mega-community is that in a collaborative socio-economic environment where business, government and civil society interact according to their common interests while maintaining their unique priorities. This tri-sector approach can broaden the scope of security to take into account all of the stakeholders. This atmosphere of open communication can draw out a kind of dynamic balance that will sustain these alliances and foster others in different sectors.

In today's global social mega-communities work better than a whole community even though there may be over-lapping goals in both. A whole community looks at itself as more self-sufficient rather than the mega-community that values collaboration by government, business and civil sectors to create resilience. Mega-communities recognize that out national preparedness is a shared responsibility of everyone. The framework of developing a homeland security national preparedness system would include an integrated framework of national planning. The model of top-down leadership is not as effective is this fast changing world as the mega-community concept. We are aware that no one agency can do it all, so we must collaborate to glean the best results possible. Framework of developing a homeland security national

preparedness system would include an integrated framework of national planning. The model of top-down leadership is not as effective is this fast changing world as the mega-community concept. We are aware that no one agency can do it all, so we must collaborate to glean the best results possible.

III. Public – Private Partnerships

When leaders in sectors recognize and include the goals and objectives of the others sectors in their planning of a mega-community strategy it strengthens each sector.

It is not a question of maximizing because this is really effective in solving complex problems that are multi-sectors. Using optimatization behavior is much more successful in a mega-community format. This behavior lets all the sectors achieve their goals over the long term by using their strengths. Putting capabilities together in this way allows the benefits of each to be sustained over time. Using optimization calls for a new way of thinking. There is not a winner per say because all interests are optimized. Building everyone's capabilities to think about problems together can solve problems. The old way of "vertical integration" has gone way to outsourcing. The mega-community thinking can so exist with existing organizational culture. To form these partnerships and sustain there needs to be constant engagement with stakeholders. By optimizing, negotiating, recalibrating and having permeable boundaries can lead to inter-dependence and create a capacity to solve difficult problems. The mega-community is seen as a way to initiate a dialogue in pursuing interests. The Roadmap to Enhanced Community Resilience Communication and Collaboration Across Sectors if February 2009 was developed in partnerships with the CAPRI (community and regional resilience iniative) Gulfport Advisory Group and Communication and Collaboration Across Sectors Focus Team. It was spearheaded

by United States Department of Energy's Oak Ridge National Laboratory (ORNI). Gulfport

became a CARRI partner community in 2007 to develop and share strategies to enhance

resilience in Gulfport. Resilience communities anticipate, reduce vulnerabilities, respond to and

recover from events in a minimized downtime. After interviews, various stakeholders in the

community were asked to serve on the advisory group. The multi-stakeholders worked together

to identify areas to be focused on to increase resilience. This turned into an action plan or

"resilience roadmap." The communication and planning is something that would work in my

strategy in the emergency services field. Insuring reliance is of the upmost important and

involving multiple sectors of the community will speed response and recovery. It also reduces

vulnerabilities while increasing the stakeholders awareness and community well being.

   It reinforced the mega-community idea where leaders listen and learn while building network

capital. There is a need for strong NGO, private sector and rule of law, not rule of individual. We

realize that each sector brings value and when sectors remain apart no one benefit. In the CARRI

group they looked for patterns and not cause to mitigate catastrophic effects of an event. It was

important to have constant stakeholder's engagement and not create barriers.

   The All Hazard Consortium (AHC) is a multi state, multi urban area non- profit formed to

create new resources and partnerships for member states to support multi state collaboration

efforts among stakeholders from government, private sector, higher education and non-profit or

volunteers. It is a conduit to the private sector and facilitated multi state collaboration between

states.

        This mega community brought together business, government and civil society to

interact and all at the same time maintain their unique priorities. Optimizing, that is strengthening ones sector will benefit the other sectors, as opposed to maximizing which does not work in the mega community.

Southeast Emergency Response Network (SEERN) is a public private and academic partnership to communication in real time and become one common operation picture of the southeast. SEERN will have an "all hazard perspective" to maximize preparedness and resiliency. It will coordinate with the Federal Government first responders, inter-agency and the private sectors to have the best results. They are looking for FEMA to hire a knowledgeable person to be a Regional External Affairs Specialist. This model is not really a mega community since it is looking for a top-down leader to be in charge. It is a partnership but in a mega community help flows to those who get help and to those who give help.

IV. Dialogue and Initiating a Mega-community

Dialogue is very important in fostering a multi-disciplinary approach to homeland security. In dialogue we are interested in gaining a greater understanding of the whole as opposed to segments. There is no "winning" but rather an emphasis on learning, collaborating and synthesizing viewpoints.

Dialogue is neither a beginning nor an end but rather it is an on-going process. It should occur throughout the mega-community. Dialogue seeks to inquire to learn to share, to integrate, and to examine assumption to create a fuller picture of reality. It works in all sectors of business, civil and government. When we suspend judgment we create an atmosphere of trust and can accept views of others. When we identify our assumptions we can see the flaws in our strategies and take more effective actions. Listening is another key to effective dialogue. Many times

people hear but do not listen. They are fixed on their views and feel nothing they hear change

their mind. This is not an effective way to solve problems. It is only when we open our minds to

new points of view can true dialogue begin (Communities, 2006).

Perhaps the most important of dialogue is to learn how to ask questions that will give us

additional insight. Then the problem solving can begin. Mega-communities do not come together

on their own. A series of conscious actions need to be taken. Initiators are needed to move a

mega-community that might exist in the latent form to active. A catalyst is needed and in crisis

such as a natural disaster an initiator will step up. The initiator is not a CEO but is is the most

visible leader of the fledging mega-community. The business sector has more resources; so many

initiators come from here. Civil Sector Initiators can also be initiators but more on social or

environmental issues such as aids or global warming. The government sector can also be in the

initiator role. As shown with the aftermath of Hurricane Andrew, the government created a

"rapid response" for natural disasters in the future. To be a good initiator you must be clear on

what the vital interests are. We need to represent our stakeholders even when vital interest are

not always self evident. These vital interests must be defined by someone within the

organization. To have a meaningful self analysis we need to identify the long range factors that

inhibit the organization achieving their goals. The best initiators are the most motivated and see

the greatest value in a mega-community over any other group. Organizations function as hubs

which is the best initiators because it is connected on many levels.

We must identity the stakeholders which will lead to consensus building and team

building. Communicating is vital to the mega-community. Of course, this must be done in an

atmosphere of respect and no one perspective is more important than another. We truly want to

understand others to gain new insight. When we collaborate we form more enlightened views based on differing perspectives.

So the mega-community Initiator respects differing opinions and views while building a strong community that will be able to respond to any disaster since all sides are involved. Of course, it is not easy to be an initiator since we come with our own pre=conceived ideas and must be willing to keep the dialogue open. We can use dialogue in an internal and external analysis to form the mega-community because we need to get all the right players in the room. Just because we might be a local organization that does not mean we operate in a vacuum. It is important to reach out to any and all groups that will help us reach our goals. We cannot be closed minded to differing views rather embrace and learn from them.

V. Whole Community Strategies – Dynamic Tensions

Actions to develop whole community strategies:

-structuring and sustaining multi-disciplinary approach through the mega-community

-dynamic tensions, private sector role in multi-disciplinary approach

There are some problems that can only be solved through a mega community approach. When we acknowledge overlapping vital interests then the mega community will move on to a new set of challenges. The structure and sustainability will be embedded on rules, tools and capabilities. All mega communities are different and thus they may structure themselves differently. The structure and approach can be strict and formal to less strict and less formal. Every meeting in the mega community should move toward actionable goals where problems are solved while educating the participants to advance their skills.

The only ways to keep people engaged is if they see value in their work; realize the mega community can bring more to the issue and that they are accomplishing something. This approach will also work to keep the relationship healthy of multi-disciplines in Homeland Security across the sectors. It will be a viable mega community where strategies are actionable and have effective results.

But how do we articulate our guiding principles. Each mega community would have its own set of internal rules that become more refined as people continue to engage. Holding forums would be a good strategy in the Public Health Sector. Having frequent meetings on a set schedule to keep the lines of communication open is important. People will know that a set schedule is in place and their adherence to it shows their commitment. Meetings can contain simulated crisis to uncover effective strategies for a given scenario. Targeted forums can be effective to build relationships especially in the early stages. When you have large cross sector meetings and conferences you step outside your own area and interact with other players in other sectors to get the most out of everyone. When meetings are held that encourage an "open dialogue" there can be greater movement toward the interests of all involved. There are many models to create open dialogues such as future search leading to see how we get from here to there. Sector move toward greater interactions with other sectors since there are many overlapping vital interests that exist across them. These forums must be carefully planned with ground rules in place to be successful. If not it could devolve quickly into something whereby no one benefits. These forums are action oriented establishing hard goals that can be met.

Using the toolkit can bridge the gap between specialist's knowledge and everyday practice in community engagement. The tools give a systemic framework and shows different

tools and techniques can have relationships to decision making. It can be applied to working towards a more inclusive community engagement in the decision making process. Community engagement would be more structured and informed if the toolkit it utilized. It is important that stakeholders engage in the mega community and by using the toolkit it is another way to have this happens. Active collaboration among sectors is important in achieving long term alliances among people with varying interests.

So having a relationship that will grow among sectors, it is important to keep the player's engaged. At the same time there must be respect for varying interests. This will lead to a common language where interest will be clear to all the parties involved. By visualizing how we see the mega community in its entirety we can move toward realization of this. People will see who they are connected to and how. Using this tool will enable the mega community to see the strengths and weaknesses. It becomes a way for all to look at the mega community and this measure its progress. Feedback is also important to the overall success of any organization. If we do not take the time to reflect we can never do better. It is necessary to keep an eye on how well the mega community is functioning. It is perceived as doing well it will attract more members.

VI. Leadership

So this mega-community model calls for leadership of a different kind. This type of leader must be one who values solutions that will help all the stakeholders. This type of leader recognizes that being inclusive will garner the best results and it's committed to cross sector engagement. For some, it might be hard to work in this larger, more complex atmosphere but if they rise to the challenge, the rewards could be great. This leader's role will not be to convince or coerce others to comply with his or her view but rather to consult with others. But this leader

will need to communicate to others to engage all in the process. He will need to listen to others as well as articulating the priorities that unite or divide them. Using all the technical tools available to him will be important to move the agenda forward while at the same time being able to adapt to changes as they occur. This will be a process with long term goals.

In the field of National Security it is important that this type of leader emerges to lead across all sectors. This leader can be especially important when it comes to the field of Emergency Medical Services. They would be able to coordinate and plan better with the fire, police, hospital and other services that will be called out in a disaster. Being able to collaborate with others will give us a more resilient community as well.

As an Emergency Medical Services Captain, I have found that when we plan for scenarios that could occur, they are most effective when we involve the public, private and civil organizations. Taking into account all the repercussions that could impact each sector gives us a more unified plan. Going forward in the 21st century, we see the need for this type of leader. No longer will the top-down form of leadership bring about the goals we desire. Partnerships should be garnered to respond to any type of catastrophic event that could occur whether they are manmade or of natural origin.

VII.   Conclusion

So as we strive toward increasing our resiliency in dealing with disasters, whatever the source, we look at the mega-community model to move us forward.

When stakeholders are represented in a meaningful way, they are more invested in solutions that will impact their safety and security. All sectors, government, private and public are challenged to work together to elicit the best results. Working this way may be a new way of

thinking for a lot of people but the results can be extremely good and go for beyond a one man solution approach to issues that arise. Multi-disciplinary approaches to the homeland security represents a way to be inclusive in optimizing each player's strengths and thus put in place the strongest strategies to prevent, respond and recover from major events.

Leadership becomes crucial in the mega-community. Since this is not a top down, sector leaders will be challenged to lead as equal partners in deriving a good outcome. This will facilitate funding, and community participation. The mega-community becomes a way to deal with complex security issues. Joining together businesses, government and the civil society will have lasting effects on all.

The multi-disciplinary approach is the only way to truly get out nation prepared for events that could occur in our post 9-11 world. The lessons of Hurricane Katrina and Andrew show that when collaboration is used more successful outcomes occur. Threats can come from anywhere but having plans in place that will involve all sectors, is key to mitigating the long term consequences to our nation.

In my EMS sector we have plans in place that involve the whole community. Meetings are held; drills of scenarios that could happen are practiced. All stakeholders contribute and feedback is given. This keeps the whole community engaged in the process that affects everyone.

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Chapter 10

Protecting Critical Infrastructure In relation to Emergency Medical Services

I. Introduction

Maintaining the nation's infrastructures is imperative in maintaining a resilient community. Presidential Decision Directive NCS-63 on critical infrastructures protection says that critical infrastructures are those physical and cyber based systems essential to the minimum operations of the economy and government. They include in part emergency services both government and private. Due to automation and technology the critical infrastructure systems are more interlinked than previously. A national goal would be to keep any interruptions of the critical functions of these sectors as brief as possible with the least amount of damage. FEMA is a lead agency for emergency services and HHS leads in the Public Health Sector (President, 1998).

The emergency services sector with an emphasis on the ambulance corporations is critical to the health and well being of the nation. In this sector there is an overlap with the Public Health Sector, which contains hospitals. So maintaining the patient's care from arriving on the scene to transport to the hospital encompasses this sector's interdependency. We can see that a failure in one sector may cascade to another thus enforcing the dependency link among sectors. In the hierarchical format of sectors emergency services along with Public Health are on the top strata but could be easily impacted by a failure at the lower levels such as transportation, power or information and technology. The Emergency Services sector is linked to Homeland Security since emergency services are the first on scene of any disaster and thus works in concert with Homeland Security to remain as prepared as we can be for any occurrence. If any sector was

compromised it would be emergency services that are first on scene to mitigate losses. Emergency services are the sector to which people reach out in times of crisis. As seen on September 11, 2001 emergency services were the first on the scene and took tremendous losses for their actions. So it is essential to keep the sector secure and protect its personnel. Even though workers are used to placing themselves in dangerous scenarios, they may be slow to see themselves as potential targets. This sector may be able to deal with routine accidents or even regional ones but something of greater magnitude could seriously tax the system (President, The National Strategy for the Physical Protection of Critical Infrastructures and Key Assets, 2003).

So it is incumbent for us to protect this sector and to have in place strategies to accommodate any scenario that could cause major disruptions to the critical sector. No sector stands alone but rather is in some way interconnected with the other sectors. So as we strengthen one sector we can in essence strengthen others.

To attain this we will identify critical sector assets, threats and probability of occurrence along with counter-measures that can be put in place to prevent or mitigate the effects of an attack on the sector. All this will be done within a budget framework that will secure our sector.

Implementation of a plan is consistent with the Homeland Security Act of 2002, to produce a comprehensive integrated National plan for Critical Infrastructures and Key Resources Protection that includes strategies to protect infrastructures and coordinate with other Federal Emergency Management and preparedness activities including the National Response Plan and National Goals (Security, 2003).

So homeland security and emergency services can work together to create an atmosphere where the public and private sectors are made strong in planning, preventing, responding to and recovering from any incident. We will work with all levels of government to coordinate plans that foster a creative look at issues to give the best possible results.

II. Critical Assets

Protecting America's critical infrastructure and key assets calls for a new national, cooperative paradigm. International terrorism has moved the front line of domestic security to the front lines of Main Street. The structures of a critical infrastructure sector are modeled as a network. Nodes, sectors and links abstractly represent cities and roads, power generators or sector assets. The assets we need to protect are nodes. The relationship between nodes is the links. In the Emergency Services Sector / Public Health Care Sector the ambulances, hospitals and staff are the nodes and the links are the roads that are traveled to attend to patients and transport them to hospitals within or without the county. Other links are the technology used to communicate with people in the field. Most infrastructure sectors have assets highly concentrated, making them very vulnerable. This reveals the critical nodes of the sector. The critical nodes in the EMS sector are the equipment including headquarters, ambulances, personnel, communication capabilities and 911 call centers. In the sector of emergency services within Putnam County, New York this is true. All the Fire Houses that house the ambulances, which are mostly volunteer, are within miles of each other. This includes all 10 houses that hold ambulance and one hospital in the county (Security, 2003).

All infrastructures can be represented by a network of nodes. Nodes are connected by links. When you count the number of links in each node, you can identify critical nodes. In most

cases there are one or two critical nodes, which reduce the problem of protection by several

orders of magnitude. In this way the idea of infrastructure as a network is established and used to

reduce the complexity of size, a challenge that must be surmounted because of the vastness of

each critical infrastructure.

Without Network Theory the problem is too big. We can't protect everything. With

network analysis we can make critical infrastructure a solvable problem. It takes a network to

fight a network. The best strategy for Critical Infrastructure Protection (CIP) will be to identify

and protect the links. It is called critical node analysis.

Assets must go to the most critical components of each infrastructure, the critical nodes.

Using network theory you can identify critical nodes and then allocate resources to reduce or

eliminate risk across the sector.

My critical infrastructure sector is in the sector of public health, mainly in the emergency

medical services including the ambulances and public health, which includes hospitals. The

nodes would be all the ambulances corporations in the county and the links are the roadways and

personnel in each corp. You need to protect the critical nodes and links to protect the entire

sector. Redundancy is very expensive. This infrastructure sector has assets that are highly

concentrated making them very vulnerable and this reveals the critical nodes of each sector.

Since we cannot afford to protect everything equally, our prevention strategy focuses on

hubs or the clusters in small world networks. These hubs or clusters are the critical nodes. Using

the critical node / link approach to CIP we can identify these hubs. To identify the critical nodes

or links in a network we count the links at each node. Public Health and Emergency Services and

other critical infrastructure sectors have a tendency to cluster thus making it easy for terrorists to identify. Of course, this also helps make it easier on those defending the critical nodes of the sectors structure. When policy makers understand how sectors are set up they can enact policies that have positive effects (Lewis, 2006).

So critical node analysis and theory can lead up to use our dollars more effectively and concentrate on protecting nodes and links in our sector. A large number of nodes and links must be hardened. We, in emergency services, do not have to be as concerned with cascading failures as say a power sector would, but if all the emergency services were impacted by an attack it could and would have devastating effects on the entire community.

In the Emergency Services sectors the assets of the ambulance corporations are concentrated within the firehouse structure.   An attack on the structures could immobilize the response of the corporations to a catastrophic event. In the United States, there have been no actionable threats to ambulances and hospital as there has been abroad. Yet, the vulnerability of healthcare facilities must be considered because they are susceptible to attacks due to public accessibility. Also these assets could be damaged during a natural disaster (Riegel).

III. Sector Threats and Probability of Occurrence

Vulnerability of critical infrastructure can be defined as the hazard – specific susceptibility of a critical infrastructure to impairment or failure with the potential to disrupt the supplying of goods and services to society. Interdependency has become an important part of critical infrastructures. As a result in advances in information technology efficiency, these infrastructures have become increasingly automated and interlinked. This creates new

vulnerabilities to equipment failure, human error, natural causes and cyber attacks. Future attacks may seek non-traditional ways to harm us like attacking our emergency services sector. When a breach does occur we must seek to mitigate the effects on the sector. Many of the interdependencies only become apparent when an infrastructure failure in one sector causes breakdowns in other sectors. This was evident during 9-11 when a hospital in southern Manhattan was affected by a sudden computer system failure. When the Trade Center collapsed so did one of the biggest web nodes and thus the hospital was affected. We cannot eliminate interdependencies among sectors but we can reduce interdependencies between vital sectors as energy and health for example (President, The National Strategy for the Physical Protection of Critical Infrastructures and Key Assets, 2003).

There could be within the global community a pandemic or a terrorist attack. In 2007, international terrorism networks incorporated hospitals into attacks in the U.K. Hospitals, which have people come and go at will are susceptible to outside threats (Riegel).

In the Emergency Services Sector even if we were not the initial threat of an attack we could still be impacted. If the water sector were hit or energy sectors, this would impact the emergency services as well as the hospitals to which we transport patients. There could also be a shortage of supplies and medications since small hospitals such as in Putnam County, New York do not have their own resources, so drugs must be brought in from larger hospitals. During a state of emergency it may become difficult to have the correct supply of medications needed to handle the patient volumes.

Our structures can be vulnerable to chemical, biological, radiological or sniper weapons attacks. There can be disruptions to functions, systems, and facilities by natural disasters too.
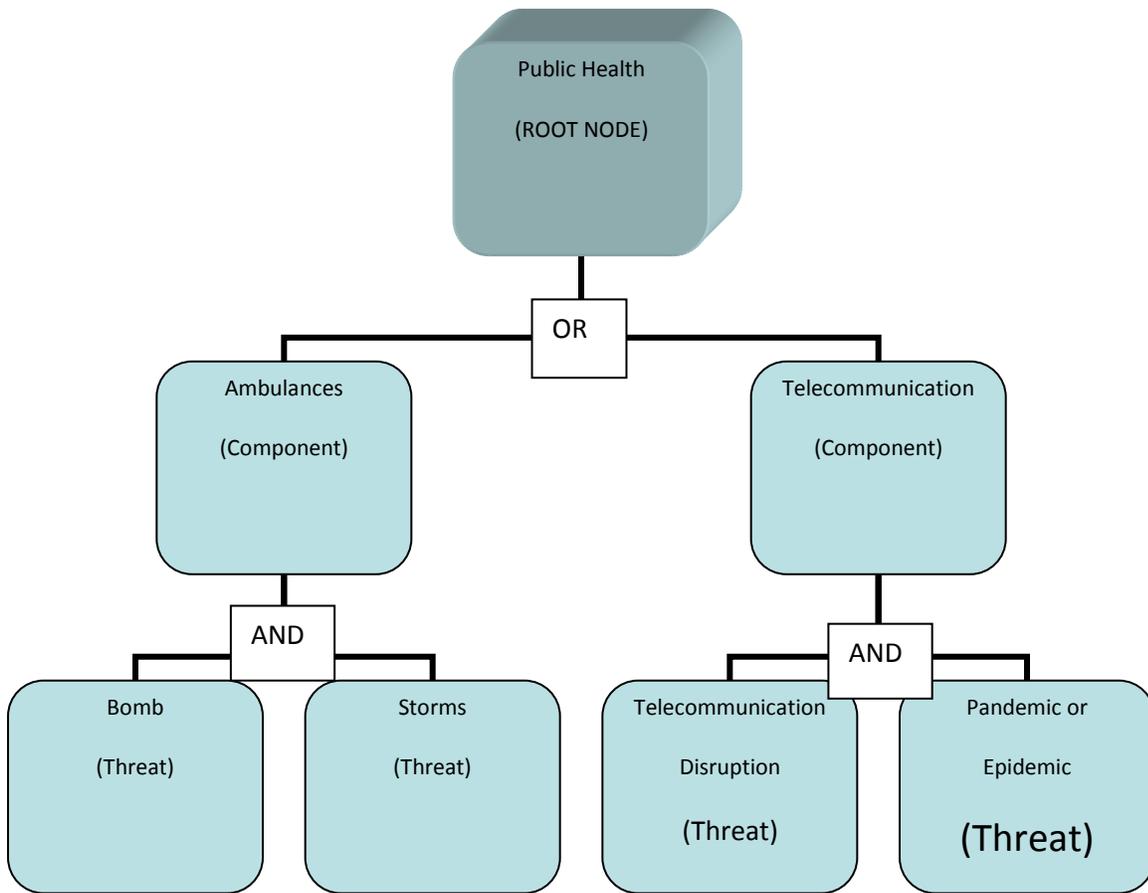
There could be a surge in patients needing care from pandemic or other disease outbreaks. Even though healthcare and Emergency Services are not as reliant on IT systems as some other sectors are, this is changing. So cyber threats could increase our vulnerabilities. We also need to look within the organizations as we could be vulnerable to an attack from a disgruntled person who has access to our facilities (Security U. S.).

Using the MBVA, which combines networks, fault, and event and risk analysis into a simple methodology will help analyze a sector's components. Components are the major assets of the sector. In this case, components would be the ambulances, the equipment, and the structure that houses the ambulances, the roads and the 911 systems. Assets we want to protect are nodes. The relationship between assets is links. So in emergency services the ambulances are the nodes and the links are the roads that are traveled to tend to patients. The threats present in this sector are virtually the same as would be in other sectors such as a terrorists group with a bomb or a virus to interfere with communications and would thus paralyze the 911 system. This would make it impossible to service the community and a crisis would ensue.

Vulnerability is the probability of a successful attack on a component. That is a measure of the strengths of a component in the face of a threat. How would emergency services function in the face of a threat? How would it be able to service those to whom we have a sworn duty? Sector and component vulnerability are sometimes interchangeable but the differences are shown in the fault tree model. By doing a vulnerability analysis we will calculate sector vulnerability from component vulnerabilities. This is the most important skill needed for CIP. This analysis will help policy makers so they do not make wild guesses.

Using the fault tree model will help us identify a fault or failure caused by an event whether natural or manmade. The vulnerability will measure the likelihood that a fault will occur. The threat is what causes the sector component to fail. This model is set up as a hierarchy. The logic OR gates tells how faults go up the tree. In the OR gate an occurrence in one or more faults causes faults to go up the tree. The sector fails only when a fault reaches the root of the tree as a sector wide failure.

Using these tools to analyze our sector, will better prepare us for events and give the policy makers a tool to use to allocate funds to a sector. There are some problems with MBVA. It lacks power because fault trees are static and do not accept the passage of time and can become very big. They cannot be used in all cases, but it's ease of use makes it a good tool.

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                        Public Health
                         (ROOT NODE)

                              |
                            [ OR ]
              _____|_____
             |                                 |
      Ambulances                        Telecommunication
      (Component)                          (Component)
             |                                 |
          [ AND ]                           [ AND ]
        ____|____                         ____|____
       |         |                       |         |
     Bomb      Storms            Telecommunication  Pandemic or
    (Threat)  (Threat)              Disruption       Epidemic
                                    (Threat)        (Threat)
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IV. Counter Measures to prevent the highest nodes / components

Countermeasures are safeguards that address a threat and mitigate risk. To assure the security of the assets in the Emergency Services / Public Health Sector these measures need to be adhered to.

-There should be a closely coordinated plan that involves both the public and private sectors. This would be necessary since an attack could most likely include both facilities in the economy and the government.

-Sectors need to work with the lead agency and the senior officer that the agency designates as the Sector Liaison Official to work with the private sector.

-Develop a plan to alert and contain an attack in progress and in coordination with FEMA, in order to have essential capabilities reconstituted after an incident.

-Frequent assessments of the Emergency Services / Public Health Sectors so we can adapt to any new threats.

-In our field we need to focus on preventive measures as well as threat and crisis management.

-We, as first responders, need to take into account the needs and responsibilities of state and local governments.

-We should set up a warning system to coordinate with the federal government so we can be warned as quickly as possible if an attack on our sector was imminent.

-To isolate and minimize damage to the infrastructure, our goal is to have the quickest response possible.

-We will set up training involving the public and private sectors to alert citizens to the importance of security and to have them partner with us to achieve funding.

-We will develop a multi-year plan to keep our vulnerabilities minimized, while looking at future threats that could appear for which we would have to plan (President, The National Strategy for the Physical Protection of Critical Infrastructures and Key Assets, 2003).

-We need to review HIPPA to see if that could prevent sharing of information during a pandemic. Privacy should be respected, but we also have a need to share data for the good of the community.

Since we are vulnerable because we have open access to our facilities we should enhance surveillance systems and coordinate links between health monitoring facilities and healthcare delivery systems.

-We need to explore the extent to which emergency response communications depends on physical nodes, such as dispatchers, firehouses or 911 call centers.

-It is essential to assure the protection of emergency personnel who are specially trained in the field. It is important to make sure that EMS is protected from unseen hazards at the scene such as CBR agents.

- Enforcing mutual aid agreements in times of a catastrophic incident will be essential to a favorable outcome.

- Keep apprised of weather conditions to have a pro-active plan in place to deal with weather as it approaches.

-Set up meetings with state and local leaders to increase funding so that more adequate training can occur and have funds for updated technology and equipment.

Since we are a service sector, we are set up to deal with emergencies as they occur and to mitigate the cost to those involved. The best counter-measures we could have in this sector are to have the best equipment, personnel, training, and funding to meet all challenges in our community.

V. Budget Allocations

Since budget constraints dictate how we allocate our money we must be very cognizant in the way we appropriate funds. We need to stretch the dollars to yield the greatest results. There are many strategies that could help in budgeting. Using the Ranked Order Risk Reduction Strategy will allow us to allocate funds to reduce vulnerability and risk in the form of financial damages.

This Ranked Order gives more weight to the worst-case events. Nothing can fully be protected so a ranking helps clarify what needs the most protection and thereby funding. This ranked order will fund improvements to reduce the vulnerability to the node. Ranked order uses a weighting algorithm to compute risk. Risk is calculated for each component in the sector and ranked highest to lowest.

Component 1 – Ambulance Equipment …………$80,000.00

Component 2 – Training…………………..…….$18,000.00

Component 3 – Call Centers/ Dispatchers………$2,000.00

We as leaders must take the initiatives to create new ways to minimize risk while maximizing the dollars spent. By doing an assessment of the ambulance corporations taking into account the site vulnerabilities, structural systems, communications and IT systems, equipment operations and maintance, we can be more aware of what critical nodes would benefit from funds and allocate accordingly. Rating vulnerabilities from 10 (very high) to 1 (very low) we can assess how best to disperse funds, but this process must be fluid. That is we cannot just make one assessment and feel it will work forever. We must assess and re-assess to keep up with an ever-changing world where new threats can become known and we must adapt to them. This also means adapting our allocations of funds. Even though the Ranked Order Risk Reduction Method might work today, it may change in the future. Critical nodes in this sector would be the ambulances / firehouses that house the ambulances, the equipment, call centers, communications and Internet. By allocating funds across the sector, we can reduce or eliminate risk. With network analysis we can make critical infrastructure protection a solvable problem.

The threats to the sector come from terrorists who would try to take away a community's safety by attacking the first responders or leaving them incapable of responding to the needs of the community. The major assets are the components that can be threatened whether physically or with cyber threats. When that threat is activated a fault occurs. It is essential to keep threats from being realized by analysis of the sector and properly allocating funds where needed the

most. However, this is not a stagnant enterprise but rather one that evolves and if needed, changes. So even though we may use the Ranked Order Risk Reduction Strategy now because it suits our needs better, that does not mean that we exclude all other strategies, which in the future may meet our needs more readily. Keeping our eye on reducing vulnerabilities will increase our chances to mitigate or prevent breaches in our sector. Decisions for allocation of funds must be free from political influences for the best results.

Using Ranked Order Risk Reduction with a $100,000.00 budget would mean that the equipment namely that ambulance and supplies would garner the greatest allocations since this would be where a threat could occur and cause the most risk. So the ambulance and equipment budget of $80,000.00 is in place. Training is also important in the sector to keep up all the members updated in the latest threats and drills to deal with such threats. These would be on an on-going assessment of strategies to use$18,000.00. The last $2,000.00 is used to help the communication call centers and dispatchers in time of need during disasters.

VI. Conclusions and Recommendations

In our MBVA we have listed our assets, threats / vulnerability counter-measures and budget to secure our infrastructure sector. Keeping the emergency sector secure is vital as this sector helps in mitigating and recovering from the effects of disasters, whether natural or man-made. Physical damage to this sector could prevent a full, effective response and exacerbate the outcome of an emergency situation. The existing infrastructure may be adequate to deal with routine accidents; there may be shortfalls to address when dealing with large-scale incidents even at the local level.

To make the emergency service response more effective certain recommendations should be followed:

-There should be communication and coordination of resources during a response. Failure of communication systems hinders response and put lives of the first responders and the citizens at risk.

-It is imperative to protect the emergency workers in the field as they are the first on the scene and thus come in contact with any kind of hazards. They could also become subject of the attack and so their protection is of the utmost importance.

-On going training for the personnel to become versed in whatever the new scenarios could be.

-Mutual aid agreements need to be in place so as to facilitate the sharing of resources across jurisdictions.

-Since no sector can operate alone, meetings with the public and private sectors is needed to have a coordinated approach to anything that arises.

-Develop redundancies within the emergency response networks to improve communications availability and reliability even during a major event.

-Meet with officials in the jurisdiction to increase funding for securing the infrastructure.

Since keeping our community resilient is our main goal, these recommendations could further this agenda. We cannot know what threats may come but as long as we effectively prepare we can mitigate the effects both financially and in human terms. We need to form viable partnerships, which we can foster better outcomes. No stakeholders can be left out of the discussion since this affects everyone. Emergency services stands on the front line on the war on terror as well as preparing for and recovering from natural disasters. The 21st Century Emergency Services Sector is one that is educated and trained in all facets of threats and vulnerabilities to the community and has the tools to address any situation.

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Chapter 11

Public Health Related to Emergency Services

I. Introduction

Public Health at first glance may not be seen as being intrinsically linked to national security. But as we scratch the surface of this we see how they are connected. As our world shrinks with people traveling to all corners of the globe, our health is also connected. Since a primary goal of Homeland Security is to keep the United States resilient in the face of all threats, we can see that epidemics, pandemics and WMD's can cause the security of the United States to be tested. There can also be threats that arise from domestic catastrophes such as hurricanes, tornadoes and other disasters that can and do put strains on the public health sector.

The Public Health sector operates at all levels of government, federal, state and local. It is therefore imperative that we, at the local level of Emergency Services make the appropriate modification to get the best results. We need to identify threats that exist as well as foresee new threats yet unknown. Once they are identified we must devise ways to prevent and mitigate their effects on the locale.

HSPD addresses the need for preparedness against an attack by terrorists using a weapon of mass destruction. It acknowledges that having sufficient resources on hand at all times is not a realistic probability. An attack from a WMD (chemical, biological, radiological and nuclear) could cause mass causalities, compromise critical infrastructure, adversely affect our economy and inflict damage that could affect the American way of life. We cannot develop and stockpile medical counter-measures against every possible threat. So our primary goal is to prevent an attack, but we need to be able to respond to and recover from one if it occurs. So we have made

significant investments on WMD consequence management capabilities to mitigate impact to public health. The development and acquisition of effective medical counter-measures to mitigate illnesses, suffering and death from nuclear agents is central to our consequence management efforts. Threats that have potential for catastrophic impact on our public health are subject to medical mitigation (Office, 2005).

We in the Emergency Services are charged to look at occurrences around the world to glean the lessons learned in how the situation was handled. As we study the past, we prepare for the future. We can create plans that will better insure our ability to cope with any and all situations that arise. A public health issue in China can affect us, as we are all inter-connected. Catastrophes such as Hurricane Katrina can teach us valuable lessons as we move forward.

II. Challenges in Public Health

There are many challenges to public health. As noted it is almost impossible to control to a great degree the interaction of people in a global society. Since people interact with innumerable people in their travels, it becomes problematic to control any outbreak from getting away from us. We are also challenged to do this while at the same time respecting their rights in a free society.

Communicating with the population must be in such a way so that there is not a panic. It is essential to alert the public to take appropriate precautions but at the same time not create a panic. It is a fine line we walk as said in the movie "Contagion," "you can't let anyone know until everyone knows." In essence once it's been told, it can't be taken back (Soderbergh, 2011).

In the United States since 50 states have 50 different health departments, there is not one set of protocols in place for any one incident. During a crisis of great magnitude it is essential to keep the players engaged. Finding the contagion's origin is another challenge. It is virtually impossible to isolate all the people someone comes in contact with even within a 24-48 hour time span.   So how do we meet these challenges to keep us safe? First we need to all speak the same language during a crisis. Getting the information out to the public is a clear, concise manner is critical to prevent a panic.

Our health departments across America need to meet to come up with protocols that can work during a crisis so everyone is on the same page. We can develop ways of identifying what is that we are dealing with and do it fast enough to mitigate the spread without undue chaos.

We need to partner with the private and public sectors to deal with anything that may happen and be able to adapt to changes in the field. Partnering with and coordinating with our partners can help us forge a plan for the best outcome possible.

In the Emergency Services Sector, we prepare and drill for all scenarios but we have seen that being able to improvise in the field is out biggest asset. We need to disseminate information appropriately so that we do not cause panic. As a local ambulance corps, it falls upon us to transport patients in a safe way to the hospital. We in the Emergency Services are linked to Homeland Security as we secure the scene. Modern technology links us to the other sectors. We need to protect our critical infrastructure of nodes and links to keep the public safe; coordinating, communicating and implementing a plan is critical in such a scenario. At the same time we need to be flexible and adapt to new situations as they arise.

Another threat that exists is from radiological and nuclear agents. In such an event there are challenges to policy makers. There could be a large number of injured who would need treatment. This could overwhelm local emergency responses and health care systems to secure, evacuate and treat patients, as seen in Israel. As they faced new threats of terrorism; radiological teams were used to take images as a first line of defense. The command station during a mass casualty event would be equipped with all necessary communication aids and should register all casualties and their conditions. Knowing that the best possible treatments are given to patients can enhance the strength and endurance of the citizenry (Sosna, et al., 2005).

Patient management of radiation casualties is essential. Triage based on injuries, signs, symptoms and contamination is needed to mitigate the harm to the patient. Medical stabilization is the highest priority. Pre-planning, training and decontamination of patients can minimize exposure and contamination risks. Identifying early symptoms can indicate the severity of radiation injury. Since the first 24 hours are crucial, as many resources as possible should be utilized (Mclnerney).

We can mitigate the effects of these challenges by being pro-active. Having plan in place at the local level and coordinating it with other levels of government will make us see what flaws exist and we can address them before an incident happens. On the local level we would coordinate with FEMA to prepare a national strategy clarifying federal and local roles in dealing with contamination. Extra exercises in recovery and preparedness should be encouraged. Knowing what to do, and who should do it are essential in a clear, concise plan for effective containment of a nuclear or radiological event.

We in Homeland Security are also challenged to deal with the effects of explosives and traumas. The HPSD 19 found that there needs to be an implementation plan to prevent, detect, protect and respond to terrorist use of explosives in the United States. The threat to the United States is real and thus we need to be prepared in the Public Health arena to deal with this situation. The United States needs to counter these threats by coordinating with all the players, from federal to local, to respond in the most efficient way. Homeland Security is charged with allocating the appropriate resources to deal with the pre and post blast (United States President, 2007).

Since the first peak for death in trauma victims occurs within seconds to minutes of the event, it is imperative to have a comprehensive injury prevention program in place to mitigate these deaths. The second peak for death occurs minutes to several hours after the event. Emergency doctors need to be trained to properly care for those in the situations. It is necessary for treatment to be quick in order to have the best results possible (Werman & Kube).

It is important that the roles are clear in these situations. Effective preparedness and response demand an established functional leadership structure with clear organizational responsibilities. It has been seen that especially at the local level this may not be in place. Confusion over roles may occur and increase the potential for redundant efforts or lapses in decision-making and response. Responding to terrorist incidents requires mutual leadership. Prehospital care is essential to make sure that the patients get to the hospitals as quickly and safely as possible. Causality distribution must be addressed as well as which hospitals are better equipped to handle bombing victims. Keeping the public aware is essential to mitigate causalities. Also public and private partnerships should be forged to create the best plans for the

community (CDC, 2010). Without immediate federal assistance many communities would find

it problematic to deal with an onslaught of victims. There are system-wide challenges that exist

in an already taxed hospital system where they have been reductions while patient loads increase.

Ambulances, which would be essential during a surge, are routinely diverted from one facility to

another. Paramedics are often made to wait for long periods of time before transfers are

approved. This of course impacts patient care.

The way to counteract this challenge lies in training. Practice is important for any

scenario. The leadership roles must be clearly laid out to make sure that the structure is clear. As

EMTs, we are constantly training and drilling to meet all the challenges that could occur.

However, there should be training given to local area doctors who are not ER doctors to prepare

them for the surge. It is possible they could be called on to help. Coordination and

communication remain essential to mitigate casualties. As first responders it falls upon us to

assess the situation and to triage. This is challenging since there are limited times this occurs

other than in a drill scenario. So it is necessary to set up a training methodology to establish

consistent and easy triage (CDC, 2010).

The incident command center must be set up to bridge the transition between pre hospital

(on scene care) and the hospital care. The more efficient our strategies are in the field the better

the results in the patient outcome in the hospital will be. A solution would be to have a unified

incident command structure such as NIMS incorporated into the healthcare response, making

EMS more important piece of the structure. When all the main actors on scene have a role, the

outcomes are clearer.

Another on scene challenge in a surge could be how to decontaminate those who need it.

Even though treatment may come later on, it is essential to decontaminate those who need it as quickly as possible. Here again, we need to establish a uniform policy and protocol for decontaminating personnel and patients, including all scenarios from weather-related to terrorism. Only when the protocols are universal can the best response be made especially when we are using mutual aid in these mass casualty scenarios.

Essential to a good result will be the receiving hospital's ability to adequately handle the expected increase in patients that could easily over-whelm it. The only way to prevent this is to prepare in advance. There needs to be quick assessments of available beds, operating rooms, ICU's, etc. It must be a flexible plan to move patients as needed. Using triage will separate the critical from non-critical patients. These are a few of the challenges of any mass casualty event. Overall the best way to prepare for all scenarios is with ongoing education and drills. Having consistent protocols in place will allow for the seamless sharing of personnel since everybody will be training the same way and thus be on the same page. Confusion and lack of leadership can be deadlier in these events than the attack itself. As part of EMS, I am aware that the level of training varies greatly among communities and so do resources and experience. So it is essential to move training in a more uniformed way regardless of where EMS is located. Evaluation after each incident will allow us to grow and improve. Through this feedback we can assess our strengths and work on our weaknesses.

Public Health has to also deal with the aftermath from natural disasters such as the ones in Haiti, Japan and Katrina in the United States. Looking back on these disasters reveals many lessons that can be learned and implemented in future scenarios. The Federal Response to Katrina Lessons Learned (February 2006), stated that the federal government should work with

Homeland Security in revising the existing places and have a clear process for all National

Preparedness efforts. The government must ensure that the Executive Branch agencies are

organized, trained and equipped to perform their roles and finalize and implement the National

Preparedness Goal (Government, 2006).

There cannot be a lack of communication among the levels of government, state, local,

federal, tribal and the citizenry of the affected areas. As we have seen in the other tragedies

communication is vital. People must be given the latest information so they can plan for what

they need to do.

Since Katrina destroyed the core of the communication infrastructure along with

electricity, people were left literally in the dark and isolated. They had no way of knowing what

was going on. The storm took out 911 emergency call centers disrupting the local emergency

services. Coordination of services was deemed impossible under these conditions. There was not

sufficiently adequate integration of federal, state and local agencies to respond to the disaster.

There were options that were not utilized to their fullest because there was not a state or regional

plan to incorporate them. The radio cache of the U.S. Department of Agriculture Forest Service,

the largest civilian cache of radios in the United States, had additional radios that were not even

used.

In emergency services, communication is key. If we are cut off and cannot respond them,

it is the public who suffer. There needs to be a comprehensive strategy among federal, state and

local governments to improve operations to meet the needs of first responders. There is a need to

incorporate existing equipment along with new technologies as they develop.

As always there is a need to plan, drill, debrief, and plan again. There are no easy fixes here but it is only when we have a coordinated effort to improve the lines of communication will the chances for a repeat of this diminish. This is not just a local issue, but also rather a federal and state one. We must share resources to have the best outcomes. A National Emergency Communication Strategy to support interoperability will support a better outcome and create a more resilient community. A plan is only as good as its ability to adapt as the crisis evolves. We need to have multiple strategies in the plan to have a full-pronged approach to getting the word out to the public and other agencies.

The devastation of the earthquake in Haiti left a country that was already called one of the 50 least developed countries in the world in truly dire straits. They had been making some progress prior to the event to give citizens access to basics such as clean water. But this earthquake set progress back on its heels. About 1/3 of the population was affected by the quake. Aftershocks also posed problems to those on the island. The disaster risk management response was still in its early stages and it was not geared toward earthquakes but rather hurricanes, which were the most common cause of natural disasters on the island. It was necessary for the United Nation Security to support the recovery, stability and reconstruction efforts since Haiti could not do this on its own.

The public health challenges following the quake were search and rescue critical needs for food, clean water, sanitation, medical assistance and setting up key infrastructure operations. Even as the conditions slowly improved there were still dire needs for shelter, food and operational hospitals. There is a need for long term follows up care especially for amputees. There is a shift to focus on primary health care and vaccination programs are planned for the

people in temporary settlements. An outbreak of any kind of gastro-intestinal virus could further

devastate the situation so latrine usage and sanitation are a priority to prevent spread of disease.

The longer-term outlook for Haiti remains problematic. Prior to the quake there was a

lack of medicine, treatments and sanitation, which has only worsened. Health care is vital to raise

Haiti out of poverty and help families to develop and thrive. There was an overwhelming

response by the international community to this disaster but the safety net needs to stay in place

for the immediate and long term if Haiti can ever be expected to truly recover (Margesson &

Taft-Morales, 2010).

In Japan on March 11, 2011 a magnitude 9.0 earthquake hit Honshu, Japan's largest

island. The tsunami that was generated by the quake was responsible for the most deaths. Unique

to Japan's disaster was the fact that 40,000 U.S. troops are stationed in Japan and resources were

in close proximity to deal with the crisis. There was an almost immediate coordinated response

with Japan's responders to engage in search and rescue. Japan, unlike Haiti, was a thriving

society, with a vibrant economy so they had many more resources in place prior to the quake.

Years of joint training and many interoperable assets helped the integrated effort.

Communication between US forces seemed to function effectively. There was one unique cause

of concern in Japan from the Fukushima nuclear reactor. There were severe shortages of

electricity. There is concern about the effect to the fisheries sectors. The floodwaters can be

contaminated due to reaction break. Radiation can contaminate food, plants and animals.

Another difference between Haiti and Japan is that Japan needs more mental health personnel,

which are a major concern, unlike Haiti where the immediate need was for more orthopedic

doctors.

Both countries had strains on their medical systems and medicines. There were also environmental concerns especially in Japan due to the radiation and gas leaks. Both countries suffered devastation and it will take both a long time to recover. Japan's efforts moved more quickly due to a more stable government than Haiti but the contamination problems will have to be monitored for a long time with ongoing testing (Feickert & Chanlett-Avery, 2011).

Since travel has globally made us all susceptible to many diseases, we need to have in place strategies to mitigate the spread of any disease that could cause a global health crisis. China has become an enormous trading partner for the United States. So travel there by both businessmen and tourist is ever increasing. Since the movement between the continents is growing, so is exposure to the various illnesses that are in China and its environs. SARS heightened our awareness to the very real dangers of bringing diseases back to the United States. SARS is not the only disease that poses a threat to the US. Hepatitis A is a virus infection that could occur through food or water. Cases of Hepatitis A can occur in travelers to developing countries with "standard tourist" itineraries and food consumption behaviors. Hepatitis B vaccination is recommended for all unvaccinated people traveling to or working in China or Hong Kong, especially those who might be exposed to bodily fluids of the local population. Typhoid vaccine is recommended for people traveling in East Asia. Japanese encephalitis vaccine is recommended if you are visiting rural areas. Rabies vaccines are also recommended for all those who travel who may come in contact with bats, which are widespread in China.

Other diseases in Asia are Dengue fever filariasis; highly pathogenic flu (H5N1) continues to cause outbreaks in domestic and wild bird populations and has caused human cases in several East Asia countries. Measles remains endemic to the region and has occurred in

adopted children from China and travelers to the region. Influenza occurs any time in the year. Swimming areas can carry a traveler's disease of schistosomiasis.

Any of these diseases can pose a threat to the United Sates and could potentially cause a pandemic here. Since we know resources can be scarce, it is essential that travelers take all precautions to avoid the international spread of disease as they travel through China. Travelers themselves must be vigilant in taking precautions that will keep them safe such as using insect repellent to prevent bites, and being careful with food and water. Using protection to avoid sexually transmitted diseases is also important.

The World Health Organization (WHO) took an aggressive stance in its response to the SARS outbreak. As a result China changed its police. The health assemble saw that it was necessary to "collaborate" with member states to mobilize financial and human resources to develop or enhance national, regional and global systems for epidemiological surveillance to ensure effective responses to emergency or emerging disasters including SARS.

Within the United States, the state and local governments have control over quarantine and isolation; the federal government is responsible for interstate and international control of the spread of disease, so clear communication among all levels of government is essential.

Keeping the food and water supply safe is another scenario that can affect our national security. Governments cannot ignore the possibility that terrorist criminals or others could target the food supply. Member of the World Health Organization expressed concerns about the possibility of biological chemical agents that could harm civilian population. A release of biological, chemical or physical agents could cause severe harm to our public health systems.

Food-borne diseases, whether intentional or not, could severely impact public health services. The 1995 attack with nerve gas on commuters in Tokyo, while not food-borne, shows how the fear and terror perpetrated on unsuspecting victims is devastating. The response was swift: 131 ambulances and over a thousand technicians and 688 people were transported by emergency services. Over 4000 patients got themselves to the hospital.

So since most countries do not have the ability to respond to such catastrophes, the public health sector could be severely strained. There need to be special attention given to preparing for threats against food supplies. This is not just a U.S. concern, but rather has international implications since we do import large quantities of our food supply from other countries. The World Health Organization (WHO) has provided support for food safety management programs and response systems at all levels. But these systems need to be expanded and strengthened to specifically address diseases that may be caused by deliberate contamination of our food supply. All member states need to establish basic systems to prevent or deter food contamination. Counter-terrorism is one aspect of a broader, comprehensive food safety program, nationally and globally. Increasing surveillance will allow us to detect incidents early and thus mitigate the effects on the general population.

There needs to be a strong, comprehensive approach to food safety, not the fragmented inspection structure that exists here in the U.S. The economic impact of even a perceived contamination could be devastating to the global economy, as well as our own. It could also paralyze public health services. So we need to have a quick and massive response to any incident whether real or perceived. Our country has emergency plans in place for earthquakes or hurricanes, but food contamination as an agent of terror is not always planned for. So we need to

broaden our outlook for terrorism in the field of food and water. Two major strategies for

countering food threats are prevention and response. We may not need new plans but rather seek

to integrate them into existing preparedness plans already in place.

Having a complex system governing our food supply administered by 15 agencies causes

a disjointed approach to the safety of our food supply. Even though there have been many

proposals to consolidate the U.S. food safety system, to date no action has been taken. So it is

imperative that consolidation occurs to insure the optimum safety for all citizens. Setting up a

single food safety agency would alleviate some of the bureaucracy encountered in this (GAO-05-

212).

Canada consolidated its food inspection with the Canadian Food Inspection Agency to

improve effectiveness and efficiency while reducing spending. Even though there are challenges

with this, it is worth exploring as it has been effective elsewhere. Other countries have followed

suit with varying degrees of success, but this approach of consolidation merits a closer look.

Having DHHS and DHS partner together when terrorism is suspected is important for the

US food supply safety. They must work with international agencies also (Policy memorandum

2007, M. Chertoff).

III. Conclusion

In the Emergency Services sector, we are trained to deal with many scenarios. But we are

acutely aware that there are situations that could quickly drain our resources and hamper our

abilities to administer appropriate care to our patients. To mitigate the effects of threats to public

health we must make sure that our agencies are well trained. Training and drills are not enough

on their own to lessen the effects of any of the threats mentioned. There must be partnering with between the private and public sectors to create plans that will be the most efficient. There has to be review of each crisis and how it was handled. It is only when we look back and critique what transpired can we improve the future.

As seen in the food safety initiatives, there have been proposals from the Congress to reform existing laws and consolidate the governmental structures for ensuring the safety of the food supply. It is also suggested that the current fragmented system is inconsistent in its effectiveness and use of resources (Office, 2005). Only by studying how we use resources can we get the most out of the expenditures. We have seen that communication or lack thereof can have catastrophic repercussions. Alerting the public as well as keeping members apprised of the situation is essential for the best outcome. Emergency workers need to know how to proceed especially if the normal course of action needs to be changed to accommodate the present set of circumstances. This also ties in with a clear chain of command in the field. It is necessary that all people on the scene know to whom they should report. When command lines are blurred there could be deadly circumstances. We can have a plan in place but as events unfold that plan most likely will change and thus a commander must be able to articulate to the group what the new procedures will be.

There can be no better way to deal with pandemics, natural disasters nuclear and radiological agents, medical surges and other threats than by having a plan in place that is fluid and can adapt on the ground to events as they unfold and where all the players are clear in their roles.

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Conclusion

We know that there is no way to completely protect the country from any and all threats. But by using the strategies we have delineated we can increase our ability to prevent or recover from any attack that is perpetrated upon us.

The tradition of our country is that we are innovative problem solvers. We always rise to the occasion and meet any challenge head on. Working within the Constitution to ensure rights are protected while reaching for the best solutions to our problems is our charge.

Whatever level of government we work in, from local to federal, we need to foster strategies that will assure our resilience in our sector. Using collaborative planning with private and public entities will give us the most appropriate solutions to issues as they arise. Planning and re-planning while looking at the feedback from prior incidents will help us make the best decisions for future events. We are part of the global community where our needs are inter-related, so we must examine all events with our global partners. The isolation of the past will no longer work in the 21st century and beyond.