Jasper County, Iowa

STUDY

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Introduction

The Jasper County EMS Association solicited a Request for Proposal for completion of a study of Emergency Medical Services in Jasper County. On November 20, 2013 an agreement was entered into with Loon Echo EMS Training and Consulting (dba Loon Echo LLC) for the purpose of completing this study.

About the consultant

Loon Echo EMS Training and Consulting is a limited liability corporation operating under the name Loon Echo LLC. We provide education, assistance and direction to emergency service agencies and systems who are striving to maintain and improve their EMS System. We are EMS professionals helping EMS professionals.

We provide a variety of services that are developed specifically to meet the needs of the requesting agency. Our goal is to meet your needs and exceed your expectations! We offer over thirty-five years of teaching, service direction and management experience. In addition, we work with numerous other EMS and business professionals who assist us in developing programming and solutions to meet your specific needs.

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I. INTRODUCTION

Loon Echo LLC is providing this Final Report for the Jasper County EMS Directors Association on the assessment of the current emergency medical services system in Jasper County. The traditional definition of Emergency Medical Services, more commonly known as EMS, is a system that provides emergency medical care. Once it is activated by an incident that causes serious illness or injury, the focus of EMS is emergency medical care and transportation of the patient(s).

EMS is most easily recognized when emergency vehicles or helicopters are seen responding to emergency incidents. But EMS is much more than a ride to the hospital. It is a system of coordinated response and emergency medical care, involving multiple people and agencies. A comprehensive EMS system is ready every day for every kind of emergency.

When Iowans are confronted with injuries from an accident or a medical emergency, they call 911 for help. Their expectations are quite simple. They want help and they want it now. Regardless of the time of day or weather conditions, they want and expect a timely EMS response. Iowans expect EMS to respond, provide care and transport them to a medical facility.

Unfortunately, in many areas of the state of Iowa, EMS response and the development of EMS systems is inconsistent and underfunded. The Code of Iowa requires that counties, townships and/or municipalities provide law enforcement and fire service. EMS is not a required service and is only noted that it "may" be provided. Lack of being a required service coupled with minimal EMS regulations and standards have not encouraged the development of EMS systems.

In Jasper County, some services are providing a consistent level of emergency medical service. Other services are struggling to assure an EMS crew will respond on a consistent basis. The expectation is the EMS system will respond with properly trained EMS personnel and have the equipment necessary to manage the incident throughout Jasper County.

In preparing this final report, Loon Echo LLC evaluated the current EMS service delivery system that is present in Jasper County. The **Iowa Administrative Code CHAPTER 132 - EMERGENCY MEDICAL SERVICES—SERVICE PROGRAM AUTHORIZATION** was utilized in this review as it sets forth the requirements for EMS Service Authorization in Iowa. This code shall be referenced specifically as it is applicable to the Jasper County EMS System.

II. JASPER COUNTY EMS SYSTEM - CURRENT

The Jasper County EMS System as it exists today is based on individual services that serve their own communities and/or townships. Services are independently funded and managed with minimal oversight, development or direction on a county level. This form of service delivery does allow for the individual service to function but it does not lend to county-wide system development nor will it assure that the needs of the customer are consistently met.

The Iowa Code's definition of an EMS System is "any specific arrangement of emergency medical personnel, equipment, and supplies designed to function in a coordinated fashion." Essentially, an EMS system should focus on the ability to deliver consistent, effective service 24 hours per day, seven days per week.

Iowa Administrative code, 641—132.8(147A) Service program levels of care and staffing standards require that services:

- **132.8(1)** *b*. Maintain an adequate number of ambulances and personnel to provide 24-hour-per-day, 7-day-per-week coverage.
- **132.8 (3)** *g.* Ensure that the appropriate service program personnel respond as required in this rule and that they respond in a reasonable amount of time.
- **132.8 (3)** *p.* Ensure a response to requests for assistance when dispatched by a public safety answering point within the primary service area identified in the service program's authorization application.

The current system includes the following components.

Ambulance Services:

Baxter Rescue Unit
Colfax Fire Department
Kellogg Fire & Ambulance Department
Monroe Fire Department
Iowa Speedway EMS (Special Event)
Newton Fire Department
Prairie City Ambulance
Sully Rural Fire & Ambulance

Iowa Department of Public Health, Bureau of EMS recognizes eight licensed ambulance services. Six of these ambulances services are authorized to provide paramedic level of care. This actually represents an artificial level of available service due to:

- Iowa Speedway EMS is only provided for events connected to the racetrack and are not part of the standard, EMS system for the county.

- Newton Fire Department is the only fulltime, paramedic service with scheduled personnel available twenty-four hours per day, seven days per week.
- Four of the remaining paramedic level services have minimal paramedic staffing which limits their ability to assure paramedic staffing on a consistent basis.

Non-transport/First Responder Units:

Lynnville Emergency Services	EMT
Mingo Fire Department	EMT
Reasoner Fire Department	EMT

Non-transport/first responder units respond to emergency calls for service and provide emergency care prior to the arrival of transport units. In addition, the Jasper County Sheriff's Department often responds as a first responder to incidents within the county. The first responder unit is an essential component of an EMS system whose importance should not be overlooked.

Communications Center:

All services are dispatched by the Jasper County Sheriff's Office Communications Center. The communications center provides Emergency Medical Dispatching (EMD) service which has the capability to provide pre-arrival instructions to the caller as well as dispatch appropriate levels of service. The implementation of the Emergency Medical Dispatching (EMD) utilizing ProQA software is a fairly new enhancement to the Jasper County EMS System. When properly utilized and managed, it can provide an excellent system enhancement.

III. EMS SERVICE ASSESSMENT

An EMS Service Assessment was conducted for each agency.

Service Information-A

Department	Type	Authorization	Level	# Ambulances	2013 responses	Bill for service
Lynnville Fire Department	Volunteer	Non Transport	EMT	0	8	N/A
Mingo Fire Department	Volunteer	Non Transport	EMT	0	0	N/A
Reasnor Fire & Rescue	Volunteer	Non-transport	EMT	1	9	N/A
Baxter Fire Department	Volunteer	Transport	EMT-Intermediate	1	143	Yes
Colfax Fire Department	Volunteer	Transport	Paramedic	2	257	Yes
Kellogg Fire Department	Volunteer	Transport	Paramedic	1	54	Yes
Monroe Community Fire Department	Volunteer	Transport	Paramedic	2	118	Yes
Newton Fire Department	Career	Transport	Paramedic/CCP	3	2105	Yes
Prairie City Ambulance	Volunteer	Transport	EMT	1	110	Yes
Sully Fire Department	Volunteer	Transport	Paramedic	1	68	*Yes

* Sully Fire Department is not currently authorized to bill Medicare and Medicaid

Service Data-B

Department	Hospitals transport to	Auto dispatch ALS	Tiered response agreement	Transport Agreement	Schedule personnel	CEH Train
Baxter Fire Department	Newton & Des Moines	No/request	Yes	Yes	No	Yes
Colfax Fire Department	Newton & Des Moines	No/request	Yes	Yes	No	Yes
Kellogg Fire Department	Newton	No/request	Yes	Yes	Yes	Yes
Lynnville Fire Department	N/A	N/A	N/A	Yes	no	No
Mingo Fire Department	N/A	N/A	N/A	Yes	No	No
Monroe Community Fire Department	Des Moines	No/request	Yes	Yes	Yes	Yes
Newton Fire Department	Newton	N/A	N/A	No	Yes	Yes
Prairie City Ambulance	Des Moines	No/request	Yes	Yes	Yes	No
Reasnor Fire & Rescue	N/A	N/A	N/A	Yes	no	No
Sully Fire Department	Pella/Grinnell/Newton	No/request	Yes	Yes	No	Yes

Personnel

Department	Personnel	Driver	EMR	EMT	EMT-I	Paramedic	Weekday availability
Baxter Fire Department	*12*	3	5	4	4	0	0-2
Colfax Fire Department	15	22	0	9	2	4	4-6
Kellogg Fire Department	*24*	7	0	15	0	3	4
Lynnville Fire Department	*14*	7	2	5	0	0	2
Mingo Fire Department	*18*	15	0	3	0	0	2
Monroe Community Fire Department	*25*	6	0	16	0	3 (1-RN)	4
Newton Fire Department	*25*	0	0	3	0	22	8
Prairie City Ambulance	*15*	6	0	9	0	0	3
Reasnor Fire & Rescue	*10*	7	0	3	0	0	0
Sully Fire Department	*35*	18	1	15	0	1	5

Policy-Proced	Baxter	Colfax	Kellogg	Lynnville	MIngo	Monroe	Newton	Prairie City	Reasoner	Sully
Emerg. Veh. Ops.	x		x	x	x		x	x	x	X
Unit Inspection			x			x	x	x	x	X
CQI			x	x	x		x		x	X
Pharmacy							x			X
Participation			x			x			x	
Training	x		x	x		x	x	x	x	X
Orientation	x		x		x		x	x	x	X
Clearance							X			X
Abuse Reporting	x					X	X	X		X

Medical Direction

Department	Medical Director
Baxter Fire Department	Dr. Dan Wright
Colfax Fire Department	Dr. Philip Clevenger
Kellogg Fire Department	Dr. Orville Bunker
Lynnville Fire Department	Dr. Cranston
Mingo Fire Department	Dr. Philip Clevenger
Monroe Community Fire Department	Dr. Orville Bunker
Newton Fire Department	Dr. Orville Bunker
Prairie City Ambulance	Dr. Gregory Ingle
Reasnor Fire & Rescue	Dr. Orville Bunker
Sully Fire Department	Dr. Matt Doty

Six physicians provide medical direction and control to ten services.

Service Notes:

Jasper County Emergency Management

The Jasper County EMA office is a tremendous supporter of EMS System Development in the county. It is highly recommended that EMA play an active role in System Development for the county.

Baxter Fire Department

Baxter Fire Department provides EMT-Intermediate service to the city of Baxter and surrounding areas. Baxter is organized and funded under a city/township agreement. The department works with multiple First Responder Agencies and utilizes Newton and Altoona Fire Departments for paramedic, tiered response. The department is well equipped and has facilities that meet the Iowa EMS requirements.

Baxter currently has 12 EMS personnel and could benefit from additional, weekday responders. Baxter is encouraged to initiate automatic ALS dispatch in specific situations to decrease time to ALS care. There is a perceived level of concern in working with Newton Fire Department during tiered responses. I believe these concerns can be addressed though ongoing discussion and procedure development.

Colfax Fire Department

Colfax Fire Department is authorized at the paramedic level and provides EMT level care when paramedic coverage is not available. The service is staffed with both fire and EMS personnel. The department has active personnel and its facility, equipment and ambulances meet the Iowa EMS requirements.

While Colfax could benefit from additional weekday responders, they have an unofficial agreement with the city that allows two city employees to respond to weekday ambulance responses. The department chief officers are very proud and supportive of the EMS operation.

Kellogg Fire Department

With 25 personnel, Kellogg Fire Department appears to have adequate staff. Weekdays typically provide four available responders. The department's equipment and facility appears to meet Iowa EMS requirements. The department is encouraged to initiate automatic ALS dispatch in specific situations to decrease time to ALS care.

At the time of my visit, the department was conducting an EMT course in a non-traditional format with the majority of class sessions on Sundays. The department has also initiated a junior firefighter program which appears to be engaging not only the youth, but their family as well. This type of "outside of the box" thinking demonstrates the caring initiative that the personnel have for their service and the community they serve.

Lynnville Fire Department

Lynnville Fire Department is a First Responder unit serving the City of Lynnville. The department works closely with their transport service, Sully Fire Department. The department has thirteen personnel, seven which have EMS certifications. Weekday availability is typically limited to 1-2 personnel.

The department truly has a dedicated group of volunteers providing service to the community. The fire station is older and may need renovation or replacement in the future.

Monroe Fire Department

The department appears adequately staffed with 25 personnel with four typically available during the weekday. The department had recently added four new recruits to further increase their roster which is important to their continued success. The department appears to have support from the officers of the department and the community.

The department is encouraged to initiate automatic ALS dispatch in specific situations to decrease time to ALS care.

Mingo Fire Department

Regretfully, we were unable to meet with this department during the term of the contract.

Newton Fire Department

Newton is the sole career fire department in Jasper County. The department provides paramedic level staffing and offers tiered response service to neighboring communities. A fee schedule for tiered response has been established. Newton also performs the ambulance billing function for the majority of the volunteer departments in Jasper County.

Newton Fire Department has been a supporter of EMS system development in Jasper County for many years. The fire department's Training Captain is the liaison with the Jasper County EMS Directors Association and performs the bulk of the association's work load; especially with grant application and management.

It is recommended that Newton Fire Department develop a change-of-quarters protocol that will provide an ambulance to be dispatched from an outlying service to standby in Newton as local ambulance resources are depleted.

Prairie City Ambulance Service

Prairie City Ambulance Service provides basic level emergency medical service to the community and outlying township areas. The department currently has 15 personnel available to provide service. Six of the staff are "drivers" and the remaining nine are EMT certified. The department only has three staff members available for weekday responses and would benefit from the recruitment of additional personnel with weekday availability.

The department is encouraged to initiate automatic ALS dispatch in specific situations to decrease time to ALS care. Prairie City currently utilizes a 2001, Type III Ford Ambulance and is preparing to initiate a process for replacing the unit in the near future. The EMS equipment and ambulance meets Iowa EMS requirements, however, we question if the facility meets these requirements.

The service is housed in a joint facility with the fire department. The station is an older building that has been retrofitted over the years to accommodate larger fire and EMS apparatus. The ambulance is parked in an area that does not have an unobstructed exit to the street for the ambulance and fire apparatus that share an exit door. Vehicles are parked so tightly in the facility that it is difficult to get in the driver's door of the ambulance due to how close the fire apparatus are parked to the ambulance. In addition, the station is not maintained in a clean, safe condition free of debris and other hazards due to the tight parking of apparatus. Also, when the ambulance exterior is being washed, it must be pulled outside on the approach.

It is recommended that the City of Prairie City address this situation before an incident occurs that damages apparatus and to be in compliance with Iowa EMS requirements.

The specific area of the Iowa Code are referenced below.

*Reference: Iowa Administrative Code **132.8(5)** Preventative Maintenance requires that each ambulance service program meet specific requirements. We have identified below the specific items we feel may be in violation of this code:*

- *All ground ambulances shall be housed in a garage or other facility that prevents engine, equipment and supply freeze-up and windshield icing. An unobstructed exit to the street shall also be maintained;*
- *The garage or other facility shall be maintained in a clean, safe condition free of debris or other hazards.*
- *b. The exterior and interior of the vehicles are kept clean. The interior and equipment shall be cleaned after each use as necessary. When a patient with a communicable disease has been transported or treated, the interior and any equipment or nondisposable supplies coming in contact with the patient shall be thoroughly disinfected.*

Reasoner Fire Department

Reasoner Fire Department is a First Responder Agency providing service to the community and township areas. The service formerly was a transport service but was not able to maintain this level of service and changed to first response. They work closely with Monroe and Newton Fire Departments for their ambulance transports. The service would truly like to return to transport status in the future.

The service has thirteen personnel, only three are EMT certified. The personnel are very dedicated and truly care about the quality of care they provide. The service has little availability of personnel for weekday responses. The service responded to nine EMS responses in 2013.

Sully Fire Department

Sully Fire Department is authorized at the paramedic level by the Iowa Department of Public Health, Bureau of EMS. The department reports thirty five personnel available for EMS responses. Seventeen have EMS certifications. The service has equipment and facilities that meet Iowa EMS requirements.

The department has transport agreements with multiple services and provides paramedic level care when available. The department currently bills for service but does not bill Medicare and Medicaid since they have not completed the re-validation process. It is highly recommended that the completion of this process be completed as soon as possible.

IV. CURRENT EMS SYSTEM STRENGTHS

There are numerous strengths to the current system that many areas of our state do not enjoy. They include:

1. **Caring and dedicated EMS providers.** One of the most overwhelming strengths discovered during this assessment are the dedicated EMS personnel providing service in Jasper County. Individual service meetings identified providers who truly care about their communities and the quality and availability of patient care they provide.
2. **Staffing.** Majority of services report that it is rare that they do not have personnel respond to calls. Some of the smaller communities have developed unofficial relationships that allow for city employees to respond to emergency calls for service during their normal work hours.
3. **Quality equipment.** First responder and ambulance units appear to be in good to excellent condition and well maintained. Individual services have the equipment required to provide the level of service they are authorized at.
4. **Facilities.** The majority of services in the county have good to excellent facilities to house EMS response units and equipment. Prairie City Ambulance Service does not have adequate facilities to house the ambulance and EMS equipment and we question if the facility meets the requirement outlined in the Iowa Administrative Code.
5. **Medical direction and control.** Each service has a physician medical director who authorizes patient care protocols and personnel for the service as required by the Iowa Administrative Code.
6. **Jasper County EMS Directors Association.** Members include representation from each county EMS service including Emergency Management. This group of individuals truly has the knowledge and ability to assure the EMS system within the county continues to develop and improve.
7. **First Responders.** Appropriate utilization of First Responder units to provide service prior to the arrival of the transport service.
8. **Relationship with Skiff Medical Center, Jasper County Communications Center and Emergency Management Agency.** This is an essential component of any EMS System and one that many areas in Iowa struggle to develop.

V. AREAS IN NEED OF IMPROVEMENT

The areas of improvement identified by this assessment should be evaluated and improved upon as they will lend to the current and future success of the county EMS system.

1. **Assure appropriate response to EMS requests for service.** The current EMS System does not provide or assure an adequate number of personnel are available to respond 24-hours per day, 7 days per week. Since benchmarks for response have not been established, it is difficult to measure or assure that EMS incidents are:

    a. Responded to in a reasonable amount of time.

    b. Ensure a response to requests for assistance.

    The majority of services do not utilize a schedule for personnel. It would appear the majority of the services rely solely on an "open call" system to where any available personnel shall respond.

2. **BLS and ALS response as appropriate to the incident type.** Transport services do have tiered response agreements but do not utilize an automatic dispatch of an ALS Tiered Response when indicated. Jasper County Communications Center has the ability to identify types of incidents that will likely require a paramedic level response.

3. **Recruitment and Retention.** Review of volunteer services identifies a lack of available personnel to provide and maintain service on a consistent basis. While currently they are meeting the needs of the service, weekday availability is a significant area of concern. The current pool of personnel needs to be refreshed with new personnel through a coordinated recruitment process.

4. **Lack of locally available and affordable initial EMS Certification and renewal programs.** Once services do recruit new volunteers, often they must travel a significant distant to attend classes required for Emergency Medical Responder or Emergency Medical Technician. Cost for travel in addition to cost of course tuition may be a significant roadblock to recruiting new personnel.

    In central Iowa, tuition and fees for the EMT certification program range from $800-1,300. Typically the class meets two to three nights per week with occasional Saturday sessions. Cost coupled with time commitment for course completion make it difficult for volunteer providers to become certified.

    Once certified, EMS providers must maintain the certification by obtaining formal and optional continuing education credit hours. This is a difficult task for volunteer providers.

5. **Funding mechanisms.** The county does not have a standardized process for assuring funding of emergency medical services county-wide. Funding varies from service to service within the county. The majority receives funding from fees for service, municipal or township resources and/or relies on donations and fundraisers to maintain their service and equipment.

   Available funding on a county wide basis should be evaluated and a process established to allow services be funded for equipment, apparatus replacement and training.

6. **Interoperability between services.** Lack of a single focus for medical direction, protocols, policies and procedures creates a barrier to services operating jointly on a consistent basis. Striving to develop, train and implement these items on a local level is time consuming for the local provider. Development of a county-wide system for the development of protocols, policy, procedures, CQI, skills maintenance and medical direction will greatly assist EMS system development.

7. **Maintaining regulatory compliance.** Maintaining compliance with existing Iowa Department of Public Health, Bureau of EMS regulations and rules are time consuming and difficult for volunteer EMS providers to maintain, finance and document.

8. **Data Collection and Utilization.** The county does not have a single data collection model that will allow response data to be evaluated, monitored and utilized for system development.

9. **Interagency communication.** This is an area that is currently being addressed through the development of the county EMS Directors Association. The Jasper County EMS Directors Association has been organized to bring service directors together as a group to discuss issues and to apply and implement grant funding. The continued development of the organization will be an essential key to the success of EMS system planning.

10. **EMS system requirements, benchmarks and standards.** The county does not have EMS standards in place. Individual services struggle with meeting the requirements of Iowa EMS Requirements and voluntary EMS Standards.

VI. RECOMMENDATIONS FOR JASPER COUNTY EMS SYSTEM DEVELOPMENT

An EMS Response system should focus on the ability to deliver consistent, effective service 24 hours per day, seven days per week. Planning for the development of a comprehensive EMS System for the County is imperative for not only delivery of emergency medical services today but developing the system for the future as well.

Development of this system will not be an easy task. It shall require a cooperative planning and development process so needs can be assessed and solutions developed. It shall require the education and involvement of departments, community leaders, elected officials and the local healthcare system to be successful.

The recommendations found in this final report are intended to build upon the current system strengths, improve areas that have been identified and create an environment for change. Change and improvement of service delivery shall not be easy. But in the end, it will have long range value for the service and the customer.

1. Strategic Plan Development

Strategic planning is an essential, initial component for any successful EMS System Development. Jasper County should engage a Strategic Planning Process as an initial step in its future EMS System Development.

In April, 2005, EMS World Magazine published an article entitled "Strategic Planning for EMS Agencies" by Raphael M. Barishansky, MPH. The article accurately defines a strategic planning process:

> *Strategy in business is defined as "the pattern of objectives, purposes or goals and major policies and plans for achieving those goals, stated in such a way as to define what business the company is in or is to be in and the kind of company it is or is to be."A strategic plan, according to one state health department, is defined as "a document that defines the needs of an organization that will enable the organization to realize its vision and mission."Another definition, from the Internet Nonprofit Center, states that strategic planning is "a disciplined effort to produce fundamental definitions and actions that shape and guide what an organization is, what it does and why it does it, with a focus on the future."*
>
> *Strategic planning is rooted in future-oriented, proactive thinking that anticipates change and adopts long-term strategies to meet the demands of that change. In other terms, a strategic plan is a "master plan" for your EMS agency. It is a management tool that will assist your organization in focusing its energy. There are both short- and long-term strategic plans.*

The objectives can be immediate (accomplished within one year), short-term (two to five years) and long-term (more than three years to initiate and less than 10 years to complete). The scope of this forecasting should focus on multiple facets of your agency, including, but not limited to, finance, personnel, logistics, operations and administration.

The Jasper County EMS Directors should complete a Strategic Planning Process following the "Iowa EMS Strategic Planning Resource Guide" that is available on the Iowa Department of Public Health, Bureau of EMS website. This program will provide a process for the organization to utilize in developing a strategic plan for the future.

2. Lead Agency for EMS in Jasper County

A lead agency should be developed and designated to oversee the development of the EMS System in Jasper County. For the purpose of this document, we shall call the organization the Jasper County EMS Association. The association should be approved and endorsed by the Jasper Board of Supervisors and subsequently recognized by local government including townships. Representatives should be appointed by individual agencies comprising membership. Lay public representation should be appointed by the board of supervisors.

The organization's mission shall be the development of an EMS System for Jasper County. Initially, the organization shall focus on the immediate needs of system planning and development. Long range planning will be an essential component to the success of the county EMS system.

The lead agency should be comprised of the following agencies:

- Service director or designee from each county EMS unit
- Jasper County Communications Center
- Law Enforcement representation (Jasper County Sheriff's Office and/or Newton Police Department)
- Emergency Management Agency
- Skiff Medical Center Emergency Department
- Medical Director Representative appointed by the Jasper County Medical Society
- Jasper County Public Health Department
- Community representatives (non-service connected)

We recommend that the existing Jasper County EMS Service Directors organization be the initial core group that shall develop the lead agency concept. It is also recommended that the lead agency function under the umbrella of the Jasper County Emergency Management Agency.

The purpose of this organization shall be to develop the Emergency Medical Services System for Jasper County that will:

- Assure an appropriate EMS response occurs through the development of policy, procedures and guidelines
- Develop strategic partnerships with county organizations through the formation of specific response policies
- Initiate planning for compliance with Iowa EMS System Standards
- Assist EMS agencies with regulatory compliance
- Collect, monitor and evaluate data
- Establish and monitor benchmarks for quality improvement purposes to maintain system quality
- Regularly issue data reports to system participants
- Identify and apply for grant opportunities

Formation of this agency will have tremendous short and long range impact on the system development in Jasper County. The organization or established subcommittees can greatly impact the workload of county EMS directors through a collaborative effort. The majority of the recommendations to follow rely on a form of this concept being utilized. Participation in this organization shall be voluntary or non-compensated.

3. Fulltime System Director

As the system develops, the future need for a fulltime, county EMS official may be beneficial for not only system development, but development of individual system components as well. This position would answer directly to the lead agency. Funding sources for this position may be through service contributions, county funded or part of a shared service agreement with the County Public Health Department, EMA or one of the current EMS services. It is recommended that this position be under the direction and supervision of the Jasper County EMA office.

While not required immediately, development of this position should be part of the future system development plan. This position will allow for future growth and development of the system while decreasing the burden of local service directors by absorbing some of their individual responsibilities.

4. Assure timely, appropriate response to EMS incidents occur

To assure a timely, appropriate response to EMS incidents, an EMS Response Plan shall be developed. Development of this plan should be focused on meeting the needs of the EMS incident, with appropriate resources in the shortest amount of time possible. In order to achieve this recommendation, system participants shall need to agree on methods to assure a response will occur.

a. Schedule of personnel responsible to respond for each service. Services are required by the Iowa Administrative code, 641—132.8(147A) to:

   132.8(1) *b*. Maintain an adequate number of ambulances and personnel to provide 24-hour-per-day, 7-day-per-week coverage.

   132.8 (3) *g.* Ensure that the appropriate service program personnel respond as required in this rule and that they respond in a reasonable amount of time.

   132.8 (3) *p.* Ensure a response to requests for assistance when dispatched by a public safety answering point within the primary service area identified in the service program's authorization application.

   It is difficult to meet this section of the code without maintaining a schedule of personnel responsible to respond. Minimum staffing based on service type should be maintained.

   Non transport = One certified EMS provider

   Transport = One EMS driver and one certified EMT

   Additional personnel should be encouraged to respond based on local service policy. Several online scheduling software systems are currently available which allows the user to view their schedule online, request coverage if they are not available and sign-up for open shifts that do occur. These systems are relatively low cost for smaller services but provide a tremendous benefit.

b. Utilization of software that is used by responding personnel and viewable by responders and communications center personnel indicating who and how many personnel are responding to a call. Software systems such as "Active 911" and "I Am Responding" will allow for both the service and the communications center the ability to know personnel are responding. This software is also relatively low cost for smaller services and may also provide a scheduling component as identified above.

c. Development of a county response protocol for EMS responses. A simple protocol should be in place that sets a time benchmark for response. EMS Contingency plans or 28E Agreements should be developed for each service identifying who will respond if the initial service is not available.

   For example, if no one has indicated they are responding at a specific time benchmark (i.e. 3 minutes) then the next available service should be dispatched to the incident. This shall assure compliance with Iowa Administrative Code and more importantly, assure a response will occur.

   In addition, Newton Fire Department should consider developing a response protocol that will automatically dispatch a change of quarter's ambulance from a neighboring service when local resources are depleted.

5. Automatic ALS response when appropriate

This is not currently being utilized within the county for a variety of reasons. Services currently wait until they receive additional patient information or until they make patient contact to request an ALS tiered response.

An effective EMS System response includes an appropriate BLS and ALS response to specific type of incidents. These incidents are typically critical and time sensitive in nature. Automatic dispatching to responses that meet specific criteria is imperative to managing a critical incident.

The Jasper County Communications Center utilizes Emergency Medical Dispatching software that has the capabilities of determining the need for an ALS response as they triage the call. The criteria for this determination should be reviewed by the Jasper County EMS Directors Association so they understand how it is utilized.

It is recommended that the Jasper County EMS Directors Association develop a uniform Tiered Response Agreement that can be utilized throughout the county. The agreement should stipulate:

a. Fees associated with providing the response
b. Who is responsible for the care provided
c. How care is transferred to the ALS provider
d. That each service maintains the responsibility for the actions of its member or employee

BLS services should provide a minimum of one staff member in the transporting unit to maintain continuity of care. The ALS provider entering the BLS unit should be provided a brief patient care report, initiate life saving or critical interventions and resume transport of the patient. Delay of care should not occur for non critical interventions.

After the call the ALS and BLS providers should be encouraged to discuss the call and share information that may be required for their individual patient care reports. The BLS provider should only document the care that they provided.

6. Initiate Iowa EMS System Standard Planning and Development

The Iowa EMS System Standards are a change initiative that provides a consistent and accountable approach to promoting and protecting the health of Iowans through EMS. The Standards describe, in a tempered and realistic manner, the minimum infrastructure (county) and EMS services that all Iowans can reasonably expect from Emergency Medical Services.

Some of the benefits of implementing and utilizing the Iowa EMS System Standards are:

- Creates an "inclusive system" where all EMS providers, service programs and other health care professions participate in attaining identifiable, measurable minimum standards that will bring consistency to EMS practice.
- Standards are statements that define the performance expectations that must be in place for EMS to assure high-quality patient care services.
- Accountability to the public
- Consistent basic (minimal) EMS infrastructure across the state
- Identifying expected range of performance and what is needed to support that performance(capacity)
- Professionalization of EMS
- Increased visibility and understanding of the EMS system by the general public
- Supports ongoing evaluation and improvement of the EMS system
- Increased integration of EMS into the public health system
- Strengthens existing local, county, regional EMS organizations
- Enables proactive initiatives for required law/rule additions or changes
- Enables proactive initiatives for standardized funding mechanism

Meeting the Iowa EMS Systems Standards will allow the local service and the county EMS System to improve and develop.

7. Regulatory compliance

The Jasper County EMS Directors Association should develop a collaborative effort to assist services in complying with regulations outlined in the Iowa Administrative Code. Volunteer service providers find it especially difficult to develop these components so they maintain compliance. Examples include

a. Skills Maintenance Program. (Requires medical director approval) Skills that are classified as high risk/low frequency skills should be included in the skill maintenance program. Two BLS and two ALS skills should be included for monthly maintenance. Skill sheets should be developed from available resources (NREMT, CIEMSD, etc.) and provided monthly to each service.

   Service personnel must practice the skill correctly with another team member and sign off that it has been completed. The medical director's designee shall monitor the program for compliance.

To verify competency, the medical director may require annual or semi-annual skill verification be completed. This verification typically involves 2-3 skills selected from previous months of the program.

b. Policy and procedure development. By working collectively, the organization can develop policies and/or procedures that are required for all services. This provides an added benefit of all services and providers following the same policy or procedure. Policy/procedure examples include:

   i. Abuse reporting
   ii. Emergency Vehicle Operations
   iii. EMS Unit Inspection
   iv. EMS Documentation and approved abbreviations
   v. Continuous Quality Improvement Program
   vi. Orientation of new employees
   vii. Infection Control

c. Equipment and supply pricing. Services are typically purchasing the same supplies and determining which vendor has the lowest pricing can be very time consuming. Annually the organization can send a pricing request to several vendors for disposable supplies and non-disposable equipment. When making this request, you will need to identify that purchases will be made by individual county units and that pricing must be provided for a specified time period.

8. Service Funding

Funding of EMS agencies seems to have different components for each service. Examples include:

a. Revenue generated from ambulance transports
b. Township funding. Fire levies are typically provided to assure fire service. EMS levy may be established to fund EMS services as well.
c. Municipal budget that is often justified or offset by revenue generation
d. Donations

The service director's organization should identify how services are individually funded throughout the county. This information can then be utilized to identify how other services may be funded equally in the county.

9. County Medical Advisory Council

A quality EMS System is the result of dedicated, collaborative form of medical control that provides consistent medical direction and protocol authorization. All services currently

utilize protocols that are provided by the state as their base protocols. Individual medical directors have added or modified protocols to meet the specific needs or requests of a service.

Jasper County currently utilizes six different physician medical directors for ten EMS services. There does not appear to be a coordinated, medical direction system within the county. Lack of a cooperative system of medical direction allows for inconsistent protocols and patient care.

It is recommended that the association assist in the development of a Medical Advisory Council for the county. This council shall be comprised of current medical directors and an appointed representative from the local hospital emergency department and the EMS Directors Association. The Medical Advisory Council will:

a. Develop and approve Patient Care Protocols
b. Approve CQI and Skill Maintenance Programs
c. Review Cases
d. Liaison to other healthcare organizations
e. Consistent medical direction

The council can appoint a single medical director for the county or allow services to maintain individual medical directors. Once implemented, this recommendation has the potential to improve communications regarding EMS in the medical community, provide consistent medical direction and allow for improved interoperability among EMS services.

10. Personnel

Volunteer services have difficulty recruiting and retaining personnel, especially those with weekday availability. Once a new member is recruited it becomes difficult to achieve EMT certification courses locally at a reasonable cost.

Retention of existing personnel is equally difficult at the volunteer level. Retention issues occur for a variety of reasons including difficulty in achieving EMS renewal hours, lack of calls, too many hours' on-call, critical incidents and lack of support from the public and/or local government.

Recruitment and retention of personnel is essential for service survival. The organization should strive to develop tools that can be implemented to improve recruitment and retention.

a. Assure that services are trained in recognizing critical incidents and their effect on personnel. Encourage services to provide Training on Critical Incident Stress Defusing on a regular basis.
b. Develop a "best practices" for recruiting personnel. This document can be developed locally or with the assistance of an outside agency. Services typically start by

identifying the qualities they desire in a potential recruit and then identify people within their community who extol those same qualities.

Spreading the word throughout the community is important to letting people know you are looking for new volunteers. Hosting an open house with information sheets about your service, expectations or personnel and whom to contact for additional information is essential.

c. Develop local continuing education programming or provide resources for online EMS continuing education.

d. Work with area EMS Training agencies to identify requirements, including cost for hosting an EMR or EMT locally within the county. You may be able to decrease course cost by hosting the program, reusing textbooks and providing instructors and skill evaluators.

e. Educate local governments and township boards on what the EMS System is in Jasper County. Develop a consistent message on the system, capabilities, personnel and cost that can be distributed by local services to their governing agencies.

11. Uniform Patient Care Report Software / Data Collection

A single EMS Patient Care Reporting Software is recommended for county EMS services. Group purchasing typically provides significant cost reduction in initial purchase as well as annual maintenance agreements. This also benefits the provider who works with one or more agencies in only having to learn one software program. County wide data collection can be easily accomplished with one software vendor. This will be essential in measuring compliance with standards and benchmarks.

12. EMS Continuing Education Programming

The county should establish a regular schedule of EMS continuing education classes that will provide a minimum of 2.0 hours of formal EMS education credit. These classes can be held four to six times a year with classes rotated among county services who will host the class. The host organization can coordinate the class and instructor or it can be organized by the county association. This format can provide 12 formal CEH's annually to assist with EMS certification. The added benefit is that EMS providers have the opportunity to train and interact with their peers across the county.

VII. SUMMARY

Loon Echo LLC has completed the EMS System Assessment for Jasper County EMS Directors Association with the delivery of this final report. We hope that you find the information provided relevant, informative and useful as you develop the EMS System within your county.

Historically, Emergency Medical Service has been provided by dedicated and caring EMS providers. Providing this service is not an easy task and requires individuals that truly care about the people that they serve and the service they provide. In our assessment of the Jasper County EMS system as it exists today, we have found personnel who possess this caring attitude throughout the county.

These same individuals shall be a critical component in the growth of the county EMS System as it develops and evolves. Change is not easy and it requires working with dedicated EMS professionals to achieve a common goal. Developing your county EMS system shall allow the system to grow, expand and improve the level of service available in the future.

We look forward to the opportunity to continue to work with your organization in the future. Please feel free to contact our organization with any questions regarding this final report.

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VIII. REFERENCE / INFORMATION

1. Iowa EMS System Standards Document – 2010
   http://www.idph.state.ia.us/ems/ems_system_standards.asp

2. Iowa EMS Strategic Planning Resource Guide
   http://www.idph.state.ia.us/ems/common/pdf/strategic_planning_resource_guide.pdf

3. Iowa Code and Administrative Rules, Chapter 132 – EMS Service Program Authroization
   http://www.idph.state.ia.us/ems/iowa_code.asp

4. Improving Access to EMS and Health Care In Rural Communities: A Strategic Plan
   http://www.nasemso.org/Projects/RuralEMS/documents/FinalApprovedbyNASESMSO-NOSORH.pdf

5. Innovation Opportunities for Emergency Medical Services
   http://ems.gov/pdf/2013/EMS_Innovation_White_Paper-draft.pdf

6. NFPA 450: Guide for Emergency Medical Services and Systems
   www.nfpa.org