Moving Toward the Future of Emergency Medical Services in El Paso County, CO

Prepared as a Service Learning Project for the Long Term Solutions subcommittee of the El Paso County Emergency Services Authority

September 1, 2015

by students from the UCCS School of Public Affairs Summer PAD 5130/CJ 6600 Collaboration Across Sectors course
This Report is the Result of a Service Learning Project

In spring of 2015, the El Paso County Emergency Services Authority’s (ESA’s) Long Term Solutions subcommittee, under the leadership of Tim Dienst, Chair of the subcommittee and a UCCS School of Public Affairs (SPA) alumnus, contacted SPA to discuss the possibility of students working on a research project to look at the future of Emergency Medical Services (EMS) in El Paso County. Pam Sawyer, a staff member and lecturer with SPA, adopted an initial overview of the situation as a Service Learning Project for the Summer PAD 5130/CJ 6600 Collaboration Across Sectors course. The course material was a good match for the situation in El Paso County, as EMS coordination in the area necessitates cross-sector collaboration in order to operate effectively. Still, the framework for the course dictated that the compressed session would run for only five weeks. This didn’t allow much time for the class to fully grasp the complexities inherent in the El Paso County EMS situation, but did allow students to apply principles and concepts learned during the course to the issues and also allowed them to provide some input from the fresh perspective of outsiders, free from historical, political, and other potential constraints.

This initial report is seen as a first step, to provide a jumping off point for further research and to serve as a catalyst for conversation and the flow of ideas across sectors and entities. The eleven graduate students who participated in this project brought to it a diverse knowledge and experience base from varied educational and occupational backgrounds. The students worked together collaboratively; their collaborative process was as much a part of this service learning project as the product, or report.

The students worked diligently to complete and compile their research in a very short time frame; some of the students are interested in and available to continue the research process with the Committee, should additional opportunities arise.

The UCCS School of Public Affairs is grateful for the opportunity to work on this project. Our graduate and undergraduate programs have been developed to include community engagement and interaction in the form of capstone projects, internships, and service learning projects. Service learning is a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities (National Service Learning Clearinghouse).
Developing and maintaining relationships with our community partners is vital to the mission of the School of Public Affairs. We thank the Long Term Solutions subcommittee and ESA Board members for their commitment of time and effort to this project and look forward to ways of strengthening our ties over time.

Authors and contributors are students from the UCCS School of Public Affairs Summer 2015 PAD 5130/CJ 6600 Collaboration Across Sectors course:

Brian Barela
Daniel Burks
Bruce Lemack
Nathan Lowry
Aaron Mach
Sarah McCrary
Tiffani Phillips
Phillip Ramsay
Emily Susic
Ethan Thomas
Adrian Vasquez

Project Oversight:
Pam Sawyer
# Table of Contents

**Introduction**  
1

**Current Conditions in El Paso County**  
3

*Emergency Services Authority*  
3

*ESA Budget*  
3

**Overview of the Alternatives Considered**  
7

**Strategic Imperatives Considered in Analysis of Alternatives**  
8

**Alternative 1: Maintain the Status Quo**  
9

*Lessons Learned from a Rural Ambulance Service Void in Westcliffe, CO*  
10

**Alternative 2: Title 32 Special Districts**  
11

**Alternative 3: Additional Options**  
14

*Community Paramedicine*  
14

*The Guardians Approach*  
16

**Summary of Options and Analysis**  
17

**Recommended Alternative: Health Services District**  
19

**Recommendations: Implementation Considerations and Next Steps**  
21

*Education Campaign – A 3-Pronged Approach*  
21

*Collaboration: Theory and Practice*  
22

*Collaboration: Practical Steps*  
24

*Pull versus Push*  
25

**Conclusion**  
25

**References**  
26

**Appendix A: Recommendations for Further Research**  
28

**Appendix B: Establishing a Special District**  
31

**Appendix C: Additional Community Paramedicine Resources**  
37

**Appendix D: Additional Guardians Information and Resources**  
39

**Appendix E: Rural Ambulance Service Failure in Westcliffe, CO**  
45
Introduction

The purpose of this report is to identify the current state of emergency medical (ambulance) services within El Paso County but outside the city limits of Colorado Springs, to understand the strategic imperatives for the county’s future emergency ambulance service needs, to provide options for future emergency services methods, and to provide a recommendation for moving forward based on assessment of these options.

The term Emergency Medical Services (EMS), as used in this report, is defined specifically as those emergency response services provided by an ambulance and trained emergency personnel in response to a 9-1-1 or other emergency call. As used here, EMS does not refer to any mode of transport other than ambulance (e.g. helicopter) and does not refer to routine transport by ambulance of non-emergent patients (e.g. transport of nursing home patients to medical facilities for routine care). However, this document does explore additional emergent and non-emergent medical services that can be implemented in conjunction with EMS. Still, it was the ultimate goal of this study to identify options and opportunities for ambulance transportation services in both emergent and non-emergent situations.

This report briefly outlines the current EMS situation in El Paso County, and examines alternatives for moving forward. Pros and cons of each of these alternatives are presented, and a preferred option is selected as a recommendation. Brief steps to implementation are developed and are included in this document. Although this project and document are specifically tailored to the EMS conditions of El Paso County, many observations and recommendations are universally valid and therefore could be applicable to other entities.

As interested parties outside of the realm of practitioners, the researchers were surprised by a few of the parameters that define EMS in the U.S. Calling the emergency telephone number 9-1-1 in almost all locations in the U.S. will provide the caller access to a public service access point, or emergency dispatch center. Operators link the caller to emergency services such as police, fire, and medical response services based on need. However, while caller access to an emergency operator is virtually universal, a guaranteed response by emergency personnel is not. Many primarily rural locations rely on public safety volunteers rather than paid professionals. Local legislation governs emergency response activities, and in an increasing number of locations, services are not funded adequately, if at all. Where funding is available, fiscal
management in the face of shrinking per capita budgets and changing healthcare regulations is challenging. To put it simply, calling 9-1-1 and requesting an ambulance does not guarantee that one is available or able to come.

Emergency transport services may be provided by public entities (e.g. a fire department), private entities (e.g. a private ambulance company), nonprofit entities, or by any combination. However, payment for services rendered is not assured. In particular, if a patient is treated on-scene but not transported to a medical facility, payment may not occur. Public and private insurance may negotiate considerably lower payment rates than those required to cover expenses, and call volume is a significant factor in whether EMS is able to operate at a profit or loss. This can be another area of concern for suburban and rural area resources.

In some areas, multiple emergency services providers may be under contract to respond to the same call. Depending on information provided, police and/or other emergency responders may also be dispatched to the scene.

These are just some of the factors operating in the changing landscape of EMS. The following report looks at potential alternatives within this context.
Current Conditions in El Paso County

Prior to 2013, the City of Colorado Springs and El Paso County had a joint contract with a private ambulance company to provide emergency medical services within the entire county. In December 2013, the City of Colorado Springs entered into its own contract with the private ambulance company; and the El Paso County ESA subsequently entered into a separate contract with the same private ambulance company. Both the City and ESA contracts with this private ambulance company expire on December 31, 2019.

Emergency Services Authority

The Emergency Services Authority (ESA) board is comprised of twelve EMS and first-responder professionals, physicians, elected officials and citizens, with the intention of providing broad representation. The ESA oversees compliance for the contract signed by representatives from El Paso County, the City of Fountain, and the private ambulance company that became effective on July 2014. This oversight is necessary to protect the public interest and safety. Prior to separation of contractual obligations between City and County, the ESA oversaw the joint contract.

There are many fire-based ambulance transport services currently operating outside of Colorado Springs but within El Paso County, including Black Forest, Fountain, Security, and Tri-Lakes. These and other entities operate along side of and with the private ambulance provider to provide emergency medical transport as needed. This mélange of interests and service providers is a common dynamic within EMS in general. Relationships must be built and nurtured to encourage effective, efficient, and favorable working conditions between and among numerous entities.

ESA Budget

ESA budget data from 2010 through 2015 is provided in the chart below. The change from the combined agreement between El Paso County and the City of Colorado Springs is evident in the drop in funding from 2013 to 2014 with a decrease from $364,679 to $40,020 reflecting a six month contract from July through December.
The private ambulance company currently pays ESA an annual administration fee of $80,000 in quarterly payments of $20,000 with additional quarterly contact assessment fees. The periodicity of the assessment fees is currently under review and may change. The funds received from the private ambulance company are used to offset the costs of contract administration including equipment, supplies, website fees, audit expenses, etc.

ESA has previously provided grants to the local community Search & Rescue, Police and Fire districts; grant fund disbursements are summarized in the table below.

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual funding</td>
<td>$276,865</td>
<td>$270,648</td>
<td>$256,812</td>
<td>$364,679 (both)</td>
</tr>
<tr>
<td>Expenses</td>
<td>$239,037</td>
<td>$242,834</td>
<td>$274,125</td>
<td>$40,020</td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td>$32,800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td>$80,075 (both)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Under this analysis, there are numerous funding vehicles available to the districts examined. The following list is an example of those opportunities:

- Property tax (CRS 32-1-1101)
- Sales tax
- Use tax
- Impact fees
- Certificates of Participation (CoPs)
- Service charges
- Franchises
- Eminent domain
• State grants
• Community services block grants
• General obligation bonds
• Revenue bonds
• Assets and appreciation/depreciation
• Private investment

Authorization to charge disproportionate fees to medical providers (CRS 29-28-103)

• Local governments can collect fees for medical service disproportionately to offset costs from Medicaid and providing services to the indigent.

County health care services fund (CRS 29-2-103.8)

• Counties may collect sales taxes to provide health care services.
• These collections are called the county health care services fund.
• Counties may enter into intergovernmental agreements with other counties and municipalities or into contracts with health service districts or private health care providers for these services.
• There is no statutory limit on the sales tax rate for the collection specific to this purpose.

County mental health care services fund (CRS 29-2-103.9)

• Counties may collect sales taxes to provide mental health care services.
• These collections are called the county mental health care services fund.
• Counties may enter into intergovernmental agreements with other counties and municipalities for these services.
• The sales tax rate for collections specific to this purpose is limited to 0.25%.

Development impact fees (CRS 29-20-104.5)

May be collected by local governments including local or regional districts and authorities so long as the fees are for capital expenditures, which are:

• any expenditure for an improvement, facility, or piece of equipment,
• necessitated by land development,
• are directly related to local government service,
• have a useful life of five years or longer, and are
• required by charters or policies pursuant to resolutions or ordinances.
Counties are required to provide copies of preliminary plans for subdivisions to local governments including authorities and districts and to allow at least 21 days for review before they can take action (CRS 30-28-136).

"Voluntary ambulance service" means an ambulance service which is operating not for pecuniary profit or financial gain and no part of the assets or income of which is distributable to, or ensures to the benefit of, its members, directors, or officers.

In order for the ESA to have a more significant impact on the emergency response, grant funding could and should be pursued for the local rural communities. A few of the grant opportunities include: Grants to USA and International Non-Profits for Arts, Education, Health/Medicine, & Social Welfare, Grants to Colorado Emergency Service Providers for Funding to Prevent Service Crises & Shutdowns, Mobility Services for All Americans Deployment Planning Projects, Low or No Emission Vehicle Deployment Program, Innovative Public Transportation Workforce Development Program, or Veterans Transportation Program (VTP).

El Paso County ESA is not the only government entity facing the issue of the high cost for emergency transportation. In 2002 it was recognized that Medicare was reimbursing transport costs at 45% below the national cost average (Overton, 2002). In a report by the Department of Transportation and Health Resources and Services Administration, it was recognized that $597,020,944 of Medicare cost could be saved by either treating patients on scene, or transporting to a physician’s office or other urgent care center (DOT; HHS, 2013). The same report acknowledged that federal responsibility in this area is dispersed across the Department of Transportation, the Health Resources and Services Administration, and the Department of Homeland Security and that a fundamental improvement would be to establish one lead federal agency. And as recently as 2014, the City of Baltimore reported collecting $3.77 million from surcharges on cell, landline and Voice over Internet Protocol (VoIP) to cover emergency services while the cost was $6.87 million (Reutter, 2014).
Overview of the Alternatives Considered

The three alternatives for the provision of EMS in El Paso County considered for this report were developed based on discussions with the ESA and initial exploratory research. While not an all-inclusive list, these options did stand out as most plausible, considering the strategic imperatives outlined later in the report.

The options covered in the report are:

1. **Maintain the Status Quo**

   The first option is manifested by making no changes to the current conditions for EMS in El Paso County. There is no immediate concern that ambulance services would no longer be available to El Paso County barring any sudden and unforeseen changes in the current private ambulance services provider contract(s).

2. **Create a Title 32 Special District**

   Discussion of the second option identifies the different types of special districts available under Colorado Law and contrasts them against the needs of ESA.

3. **Cast a Wide Net: Additional Options**

   This option allowed for creative thinking by the researchers. Considering the needs of the ESA, the authors cast a wide net for their research – locally, nationally, internationally, and even theoretically – to try and identify innovative ideas to address ESA needs.
Strategic Imperatives Considered in Analysis of Alternatives

The strategic imperatives are those critical requirements identified by the researchers as necessary when considering a viable approach to delivering EMS in El Paso County; they were based primarily on discussions with the Long Term Solutions subcommittee of the ESA and on additional research. The strategic imperatives were used to analyze and evaluate the four options considered and in presenting the final recommendation.

The strategic imperatives are:

• a responsive system that provides timely and appropriate emergency responses to patients with life threatening emergencies;
• a robust system which is financially viable and sustainable;
• a feasible system that can be implemented within legal constraints;
• a system which adequately addresses both urban and rural customer needs;
• a flexible system that will adapt to future challenges.
Alternative 1: Maintain the Status Quo

The first option is to make no changes to the current EMS conditions within El Paso County. Changes in the previous contractual arrangements that resulted in separate City of Colorado Springs and ESA contracts with the private ambulance company also resulted in instability of relationships within the EMS community and speculation about future directions. Concern about the ability to provide adequate, viable EMS services outside of city limits prompted this research. While there is no identifiable immediate concern that ambulance services would no longer be available to El Paso County barring a sudden and unforeseen change in the current private ambulance services provider contract, there are some primary considerations for this alternative.

Some municipalities provide EMS publicly, typically through their Fire Departments, without relying on private providers. There had been some speculation that this might be the direction that the City of Colorado Springs was heading. If the City decided not to renew their contract with the private provider, but to handle emergency medical transport services internally, would there be enough motivation for the current, or any, private provider to continue to service the county outside city limits?

Dispatch center personnel described a process in which there were few exceptions of CSFD personnel not being dispatched to medical calls for service. As a result, the CSFD dispatches four-person crews (an Engine or a Truck) to what may be medical-only calls. The dispatch of these types of resources can be much more than what might be needed for a medical-only call. If a Truck gets dispatched, policy does not require the crew to be Advanced Life Support (ALS) equipped, so if ALS is necessary, an Engine might then be dispatched, placing two vehicles and eight crew members on-scene.

Interviews were conducted with several public safety officials within the City of Colorado Springs. Currently, there is no indication that the Colorado Springs Fire Department (CSFD) is planning to obtain medical crews and vehicles to handle medical-only calls and transports. Moving in this direction would require hiring additional dispatchers and administrative staff to manage the staff, billing and other hidden costs, purchase of equipment, and hiring of personnel to fill added roles in ambulances. These conditions were corroborated by several persons interviewed within the CSFD and Colorado Springs Police Department (CSPD) who hold positions where this type of knowledge would be expected.

Currently, the CSPD and CSFD share a dispatch center. A contingent of employees of the private EMS provider has also been integrated into the dispatch center. Embedding these three entities into the same dispatch center was intentional so that the dispatch of medical personnel could be accomplished in a seamless fashion. Further integration of
El Paso County personnel into the shared dispatch center is being explored. This type of renewed coordination and collaboration among the various entities seems to indicate a movement toward transparency and open communication.

Regardless of whether the City continues to separately renew a service contract with a private EMS provider, the issue of financial viability of urban versus rural service areas remains. A high (urban) call rate results in a higher percentage of transport services and of recouped costs. A lower (rural) call rate, which requires the same level of training for personnel, similar equipment costs for medical supplies and vehicle maintenance, and for other associated costs, is not as financially viable. Financial viability is comprised of a few factors:

- Consumers without insurance utilize ambulance transportation services but are unable to pay the out-of-pocket fees associated with such services.
- Insurance providers (public and private) pay a negotiated but sometimes insufficient fee for transport services. This is likely to be further impacted in the next couple of years by full implementation of the Affordable Care Act.
- There may be a lack of a sufficient, dedicated funding stream to pay the full cost of EMS, primarily in rural areas.

Lessons Learned from a Rural Ambulance Service Void in Westcliffe, CO

Bill Lang lived in rural Southern Colorado. When he began exhibiting symptoms of a heart attack, his wife called 9-1-1 and was told there was no ambulance available to respond to the call. Bill passed away as his wife was driving him to a medical facility. More details of his story are in Appendix E of this report. The circumstances of Bill Lang’s death illustrate potential challenges faced by suburban and rural El Paso County.

Challenges evident in Bill Lang’s case include:
- Rural response challenges
- Lack of funding
- Staffing shortages
- Lack of public awareness of the existing situation
- Lack of communication and coordination among service providers
Alternative 2: Title 32 Special Districts

In the process of determining a viable plan for safeguarding EMS accessibility within El Paso County, it was important to consider Title 32 Special Districts. Under the authority of the Special District Act, there are several different kinds of special districts that can be created in Colorado (State of Colorado General Assembly, Colorado Legislative Council (CLC), 2013, p. 38). For the purposes of finding a district that could provide emergency services, the districts that do not provide such services could be quickly eliminated.

- **Special districts not providing ambulance services were eliminated from the deliberation process:**
  - Forest Improvement
  - Metropolitan
  - Parks and Recreation
  - Sanitation

- **Remaining initially viable special district options:**
  - Fire Protection
  - Ambulance
  - Health Assurance
  - Mental Health Care Service
  - Health Service

A **Fire Protection District** “provides protection against fire by any available means and which may supply ambulance and emergency medical and rescue services” to include the ability to own and maintain ambulances (CRS 32-1-103 and CRS 32-1-1002). This means that should the ESA no longer be able to maintain a contract with a private EMS provider, a Fire Protection District could provide ambulance services that would replace those private contract services. Creation of a county-wide Fire Protection District would overlap fire protection districts already in existence (e.g., Hanover, Calhan, or Tri-Lakes Fire Protection Districts).

**Health Assurance Districts** are “created to organize, operate, control, direct, manage, contract for, furnish, or provide, directly or indirectly, health care services to residents of the district and family members of such residents who are in need of such services,” (CRS 32-19-102). Such districts do not have to hold court hearings for their creation (CRS 32-1-304.5). A **Mental Health Care Service District** focuses on the provision of mental health care services to residents of that district (CRS 32-17-103). However, it is unclear if ambulance services are included for either of these types of special district, and therefore neither district would be an obvious solution for future provision of EMS in El Paso County.

An **Ambulance District** is defined as “a special district which provides emergency medical services and the transportation of sick, disabled, or injured persons by motor
vehicle, aircraft, or other form of transportation to and from facilities providing medical services,” (CRS 32-1-103). Ambulance Districts can levy and collect property tax. However, Ambulance District boundaries must be contiguous territory (all property encumbered by the district must be adjacent), and Ambulance Districts must not provide services to fire protection districts, health service districts or municipalities that provide their own ambulance service (CRS 32-1-1007).

A Health Services District (HSD) is a versatile district that can provide a variety of health care services. In addition to the collection of voter-approved property taxes, HSDs can levy and collect sales tax on all transactions except cigarettes and have a one-year minimum before they can be dissolved, (CRS 32-32-1003 and CRS 32-1-709). This type of special district can be as all encompassing or exclusive as the creators and board choose to make it. From hospitals to ambulance services, HSDs can provide a wide array of services to the county or counties that they cover.

With the exception of the Ambulance District noted above, all other special districts in Colorado are not required to be contiguous (CRS 32-1-107). However, a Health Service or Health Assurance district must be organized inclusive of all boundaries of at least one existing municipality, county, or district (or authority) (CRS 32-19-105).

Special districts may overlap if and only if:

• facilities financed or services operated by the district do not duplicate or interfere with existing or planned facilities or services within the overlapping area, and
• approval is received by the respective local governments (county or city) and by the overlapping district (or authority) providing the same type of service (CRS 32-1-107).
## Comparison of Special Districts

<table>
<thead>
<tr>
<th>Type of District</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Protection</td>
<td>• Can supply ambulance and emergency medical/rescue services</td>
<td>• Implementing a county-wide district would overlap existing districts (Hanover, Calhan, or Tri-Lakes)</td>
</tr>
<tr>
<td></td>
<td>• Have the ability to own and maintain ambulances</td>
<td></td>
</tr>
<tr>
<td>Ambulance</td>
<td>• Provides emergency medical services and transportation of sick, disabled, or injured persons</td>
<td>• Limited to only ambulance/ambulance transportation services</td>
</tr>
<tr>
<td></td>
<td>• Can levy and collect property tax</td>
<td></td>
</tr>
<tr>
<td>Health Assurance and Mental Health Care Service</td>
<td>• Both have provisions for health services</td>
<td>• Unclear if either can include ambulance services</td>
</tr>
<tr>
<td></td>
<td>• Health Assurance Districts in particular are charged with organizing and managing health care services to district residents</td>
<td>• Mental Health Care Service Districts are VERY specific to health conditions</td>
</tr>
<tr>
<td>Health Services</td>
<td>• Can include a wide variety of health care services, including ambulance services</td>
<td>• Possibly time consuming in its creation</td>
</tr>
<tr>
<td></td>
<td>• Can levy/collect sales tax (except cigarettes) in addition to property tax</td>
<td>• Possibility of numerous rounds of elections prior to passing</td>
</tr>
<tr>
<td></td>
<td>• Can submit specific license/certificate in lieu of service plan</td>
<td></td>
</tr>
</tbody>
</table>
Alternative 3: Additional Options

Community Paramedicine

“The concept of community paramedicine represents one of the most progressive and historically-based evolutions available to community-based healthcare and to the Emergency Medical Services arena.”

-- Joint Committee on Rural Emergency Care, National Association of State EMS Officials, December 2010

Community paramedicine is crafted around the needs of a specific community. The community paramedics provide services to residents in their home and perform expanded roles.

Standard paramedic services include:

- Resuscitating and stabilizing patients
- Using high tech equipment (e.g. defibrillator)
- Applying spinal and traction splints
- Administering intravenous drips, drugs and oxygen

Community paramedicine can provide the same services as paramedics, but can also offer additional services as appropriate, including:

- checking vital signs in a non-emergent situation
- providing non-emergent blood pressure screening and monitoring
- monitoring prescription drug compliance
- providing breathing treatments
- providing wound care and dressing changes
- providing patient education
- intravenous monitoring
- providing mental health services referrals
- providing social services referrals
- conducting immunizations
- providing well baby checks
- providing asthma management
- providing medically-based dental activities
- conducting blood draws
- providing disease investigation

Community paramedicine works within the medical framework by partnering with and providing field information to clinics, doctors and hospitals, increasing patient care and
better health outcomes, (NCSL, 2015). Community paramedicine services may be provided in conjunction with an ambulance district or health services district.

There are several examples of community paramedicine communities. Eagle County, Colorado provides an informative case study; their Program Handbook contains interesting and relevant information.

The National Association of State Emergency Medical Services Officials and the National Organization of State Offices of Rural Health wrote into their State Perspectives Discussion Paper on Development of Community Paramedic Programs as their Statement of Purpose:

*The concept of community paramedicine represents one of the most progressive and historically-based evolutions available to community-based healthcare and to the Emergency Medical Services arena. By utilizing Emergency Medical Service providers in an expanded role, community paramedicine:*

- increases patient access to primary and preventative care
- provides wellness interventions within the medical home model
- decreases emergency department utilization
- saves healthcare dollars and improves patient outcomes

*As the Community Paramedicine model continues to be adopted across the country, states and local communities need assistance in identifying common opportunities and overcoming challenges. This discussion paper offers insight into the historical perspective and future considerations for Community Paramedicine programs. As well, it advocates for the development of an implementation guide for states.*

This is a valuable document for anyone interested in the concept of community paramedicine and its implementation. Another site that provides step-by-step guidelines, examples and innovations is the Rural Assistance Center (RAC), which provides many resources needed to support community paramedicine initiatives as well as funding links. Links for additional information and examples are included as Appendix C.
The Guardians Approach

This concept takes its name from *The Alliance of Four Cities* (Lund, 1986), a novel based on an imagined post-apocalyptic future society. At the center of this society were Guardians - a single corps of first responders who provided public safety and medical response, but were not divided by functionality.

While not advocating for a complete shift to cross-functionality, elements of this concept may be viable. Some of the potentially implementable elements may include:

- Route 911 calls to qualified medical personnel to verify need when questionable
- Increase the number and type of eyes and ears on-scene to determine needs accurately and quickly
  - Telephone triage – call routing to qualified medical personnel
  - Telemedicine – pads with two-way video, bodycams, etc. supported by FirstNet wireless broadband
  - Focus on EMS delivery and on-scene assessment
- Provide transportation services via other means when medical travel is needed but not urgent
- Use light weight vehicles for emergency medical response to increase speed and reduce cost
- Share resources among participating jurisdictions

Employing a combination of inter-disciplinary practices may increase the quality of emergency medical service and ambulatory care and drastically reduce unnecessary costs:

- Triage and routing of calls by qualified personnel with objective measures and standards of procedure for guidance,
- Tele-medicine options over broadband capabilities like FirstNet to receive additional support, and
- Create deliberate change in who is sent to the scene and how they provide assessments

Additional information related to this concept may be found in Appendix D.
## Summary of Options and Analysis

<table>
<thead>
<tr>
<th>Options</th>
<th>Strategic Imperatives Supported</th>
<th>Strategic Imperatives NOT Supported</th>
</tr>
</thead>
</table>
| Status Quo                                   | • Feasible  
• Financially Viable (city)                                                                 | • Urban and Rural  
• Flexible  
• Financially Viable (county)  
• Responsive                                                                 |
| Other Title 32 Special District (Ambulance, Fire, Mental Health, Health Assurance) | • Feasible  
• Urban and Rural  
• Responsive (Ambulance and Fire)                                                                 | • Flexible  
• Financially Viable (many constraints)  
• Responsive (Mental Health and Health Assurance)                                                  |
| Health Service District                      | • Urban and Rural  
• Flexible  
• Financially Viable  
• Responsive  
• Feasible                                                                                         |                                                                                                   |
| Community Paramedicine                       | • Urban and Rural  
• Flexible  
• Responsive (especially effective for tailored responses)  
• Feasible                                                                                         | • Financially Viable (on its own)                                                                   |
| Guardians                                    | • Urban and Rural  
• Flexible  
• Responsive (especially effective for tailored responses)                                                                 | • Financially Viable  
• Feasible (innovative but unproven approach, initial steps seem feasible)                           |

While there is no identifiable immediate concern that in maintaining the status quo ambulance services would no longer be available to El Paso County it is not deemed viable for the long term due to the issue of inadequate funding streams for EMS in rural parts of the county. Although there is no indication of movement away from the current condition if separate contracts with the private EMS provider, there is no guarantee that the current, or any, private EMS provider will bid on a new contract when the opportunity arises. As understood by the researchers, the two issues that most
influence viability of EMS services in El Paso County are the actual cost for provision of emergency medical services and a lack of a sustainable, effective financing mechanism for rural areas. These primary issues would remain.

However, the apparent stability of the current conditions, at least until the contracts expire at the end of 2019, allows time to determine if other options might be viable.

Comparison of Title 32 Special Districts reveals that creation of a Health Services District is the most flexible option. The ability to rely on multiple funding streams and the flexibility of services provided, as well as the ability to have non-contiguous boundaries, make this the preferred district option.

Both of the innovative alternatives discussed, community paramedicine and elements of a guardians approach, could be implemented as part of a Health Services District.
Recommended Alternative: Health Services District

After weighing the options for El Paso County, the researchers propose that pursuing a Health Services District (HSD) would be the most beneficial for sustainable EMS. The procedures for setting up an HSD, although complex, are viewed as well worth the time and effort in order to ensure the consistency of EMS and health care services in general. These steps include the implementation of a needs assessment, creation and approval of a service plan (or in lieu a license/certificate of compliance with the Colorado Department of Public Health and Environment), selection of funding mechanisms and potential approval by voters, and public board meetings. An HSD is attractive in that they are not required to submit annual special district reports nor are they subject to review by El Paso County for changes in services (unless it affects their license or certificate) (CRS 32-1-207).

A Health Services District:

• Is more flexible than an ambulance or other Title 32 special districts.
• Can provide their own ambulance services or contract these services out to private providers.
• Cannot be dissolved before one year of their organization.
• May include:
  o The ability to organize, own, operate, control, direct, manage, contract for, or furnish ambulance services
  o Public hospitals
  o Convalescent centers
  o Nursing care facilities
  o Intermediate care facilities
  o Emergency facilities
  o Community clinics
  o Other facilities providing health and personal care services

Health Services District revenue generation:

• Provides a way to fund a wider variety of “mandatory health services” especially when payment is not always collectable
• HSDs have the power to levy and collect a uniform sales tax in their entire geographical area, except for the sale of cigarettes
• Private land owners cannot exclude their property from the approved property taxes that fund a HSD
• HSDs are not required to submit a special district annual report, or a notice of its intention to construct facilities, issue bonds, levy taxes, impose fees, etc.

A Health Services District also addresses all of the strategic imperatives considered by researchers in this analysis:

✓ A responsive system which provides timely and appropriate emergency responses to patients with life threatening emergencies

✓ A robust system which is financially viable and sustainable

✓ A feasible system which could be implemented within legal constraints

✓ A system which adequately addresses both urban and rural customer needs

✓ A flexible system that will adapt to the future challenges

Contracting in a Health Service District:

Arguably one of the most important factors to consider when deciding whether or not to establish a Health Services District is the versatility of the district. Within a Health Services District there are vast numbers of medical and health services that can be included. Any new or innovative health care service that might be of interest to those setting up a Health Services District can be included in this district type.

   A [Health Service District] shall have the authority to contract with or work cooperatively and in conjunction with another health assurance district or health service district, or any existing health care providers or services to provide health care services and facilities to the residents of such districts (CRS 32-19-114).

Such a provision clarifies that existing beneficial health services within the district can remain intact after establishment of a Health Services District. Furthermore, any local, state or federal government may cooperate or contract with one another to provide any service authorized to each of the cooperating or contracting governments so long as they are authorized by their legislative bodies to do so (CRS 29-1-203).

Additional information may be found in Appendix B.
Recommendations: Implementation Considerations and Next Steps

Education Campaign – A Three-Pronged Approach

Public education is a huge factor in the success of a drive to implement a HSD. As the researchers were surprised by the existing conditions and potentially unstable future of EMS, the general public will likely be surprised to learn the same.

Our research has shown a three-pronged strategy is most effective when dealing with public safety issues, such as provision of EMS. There are three entities identified that are critical to the education process in this three-pronged approach; the public, County Commissioners, and State legislatures.

The first prong is education of the public through an appropriate education campaign that will have the maximum effectiveness for your target population. Hiring an established political advising firm with local experience is advised, as they possess the desired qualifications and expertise for such a process.

The second prong is education of El Paso County Commissioners in order to bring legitimacy and political support to the issue. It is suggested that this education should initially concentrate on those representing the rural communities of Calhan, Hanover, and Falcon. Gaining support of the County Commissioners from these areas will help gain the support of the remaining commissioners.

The third prong is education of State legislators, potentially through the hiring of a lobbyist firm. The issues discussed in this report are not confined by geographic boundaries. EMS is facing challenges everywhere. Gaining support among the legislature is important in order to create change that will benefit El Paso County. It is also important that this issue is on legislators’ radar at the state and national levels.
Collaboration: Theory and Practice

Collaboration is an essential function of successful policy implementation. Trust, commitment, vision, and understanding of the political environment and appropriate stakeholders are elements necessary to collaboration. This section will provide the fundamentals found in historically successful collaborations.

Stakeholders and the appropriateness of their inclusion fall on some basic principles:

• Strong interest in the issue
• Have expertise and knowledge related to the issue
• Can make time to work on the collaborative team
• Have needed resources

Ensuring these elements are present in the people responsible for the execution of the collaboration is paramount, (Linden, 2010).

Creating commitment in the collaboration ensures the project will be followed through until completion. Failure to gain commitment will inhibit the relational and procedural steps necessary to form a successful collaboration. The following are key ingredients to establishing high commitment (Linden, 2010):

• Connect the project to a larger value.
• Spell out, in clear terms, the costs of no action.
• Identify those on the team who are clearly excited about the project.
• Find a senior leader who has a strong interest in the project and will devote time and resources and perhaps take on the role of project champion.
• Make the shared purpose real; bring in customers or other stakeholders who can talk about the problem and why it is so important.

Navigating multiple relationships successfully requires an element of trust (Forrer et. al, 2014). A collaboration is an arrangement of relationships. Developing trusting relationships throughout the project ensures openness, information sharing, cooperation, and resource sharing. The following are tools to increase trust in relationships (Linden, 2010):

• Share information, both requested and unrequested
• Set aside time to work on relationship building
• Model openness; use self-disclosure
• Make good on commitments
• Take a personal interest
• Engage in joint training
• Offer help during a crisis

Some challenges may occur during the collaboration while forming trust (Linden, 2010).

• Egos or difficult personalities
• Hidden or different agendas
• Lack of information sharing
• The dual loyalty dilemma
• A power differential among participating organizations
• Bad chemistry among some individuals
• Competition among individuals for leadership of the group

The common principles of forming a successful collaboration are founded on commitment, trust, communication, relationships, and having a champion to see the project through. Like any venture, there are often hurdles that must be traversed. The following are common obstacles to forming a collaboration (Linden, 2010 and Agranoff, 2012):

• Egos
• Turf
• Lack of time
• Power imbalance
• No perceived reward for collaboration
• Silo mentality
• Inability to accurately frame the problem
• Inability to resolve conflict
• Activist administrators unwilling to devote time and resources

The future of EMS in rural El Paso County is uncertain. However, through proper application of collaborative principles, founded through historical analysis of countless successful organizations, a sustainable solution is possible.
Collaboration: Practical Steps

The concept of collaboration may be separated into segments which, when used together, will lead to successful collaboration. Those segments include (Whitaker and Dreenan, 2007):

- Communication
- Knowing the stakeholders
- Building and maintaining lasting relationships
- Measuring effectiveness

Although many agree that successful collaboration is easier said than done, each segment eases the idea of collaboration across sectors. Our research shows that the concept of collaboration between and among sectors and entities throughout Colorado could benefit us all.

The first step is to have clear and open communication with the public, and with all stakeholders. Concerns need to be expressed to the citizens of El Paso County to make sure they understand the circumstances, the possibilities, and the end goals for a potential Health Services District. Having open communication with all of the stakeholders would assist to make sure everyone understands the proposal.

The second step involves knowing each of the stakeholders for the Health Services District. Once the stakeholders have been discovered, communication needs to remain transparent. Clear communication will help the organization and stakeholders understand the process and open the door for strong, trusting relationships.

The next step is to build long, lasting relationships among stakeholders. Building and maintaining relationships is a crucial part of any type of collaboration. Acknowledging that relationships need time, care, and commitment for each stakeholder is imperative; we must also remember that the time spent with each stakeholder will end up strengthening the overall goal.

Lastly, measuring the effectiveness of the HSD is required. As the Affordable Care Act continues staged implementation, healthcare professionals need to reevaluate the ways they are measuring and evaluating progress.

Each of these stages is important individually but when used synergistically, they will help to achieve successful collaboration.
Pull versus Push

It is the recommendation of the researchers that parties interested in including contracted ambulance services in a newly-created Health Services District of El Paso County strongly consider utilizing the Pull versus Push method. Noted author Russell M. Linden clarifies that “push” and “pull” represent different styles of leadership and engagement with parties interested in (or of interest for) a collaboration. Pull is a method of engaging parties or individuals by way of listening, asking, and inquiring and in doing so, encouraging the parties or individual to become involved on their own accord. “As a collaborative leader, you can use pull to engage people in collaborative efforts in a variety of ways … [for example] show your personal enthusiasm and commitment for the initiative [and] give others control, (Linden, 2010, p. 85).

As there are multiple ambulance service providers within and near El Paso County, pull methods of attracting potential contractors would include the county polling potential contractors, as stakeholders, regarding their interests and needs. In this way, if El Paso County pursues a Health Services District, local companies would be more likely to become interested in entering into a contract with the county under this district due to the attentive nature of the county. Eliciting potential contractors in this way could foster multiple bids for the contract. Utilizing this pull method ensures both a county that is attentive to contractor needs and a competitive environment for contractors to bid on a contract, which benefits the county.

Conclusion

In summary, the following key points encapsulate the research that lays the framework for a future collaboration to address the issues of EMS for the ESA areas of responsibility:

- Given current conditions there is time to proactively pursue other alternatives
- Establish a Health Services District
- Consider incorporating innovative options like community paramedicine and initial steps towards a guardians-style framework
- Collaboration is essential
- A formal public education campaign is vital
References

Appendix A: Recommendations for Further Research

The researchers have identified the following topics as further research opportunities.

1. Conduct a needs assessment and develop a service plan. The service plan must contain the following statutory requirements:
   - Description of proposed services
   - Financial plan
   - Preliminary engineering or architectural survey
   - Map of proposed special district boundaries
   - Description of facilities and statement addressing compatibility with county and city standards
   - Estimated costs of initial organization and operation of the district
   - Any necessary agreements with other political subdivisions
   - Information to establish compliance with C.R.S. 32-1-203
   - Any additional information required by the Board of County Commissioners

   See Appendix B for additional information.

2. Develop and implement a public education campaign
   - Propose methods for communication and campaign efforts
     - Explain why these methods are the best for the needs of the county and campaign
   - Conduct surveys and research with the involved stakeholders, particularly the citizens of El Paso County to determine the current public opinions
   - Determine involved parties
     - Who will spearhead the campaign?
     - Which agencies or organizations will be involved?
     - Will you hire a professional educational campaigner or organization to organize the efforts?
   - Choose topics to be included in the campaign
     - Define clearly the purpose of the campaign by making the following topics understandable and relatable to the public
       - Current conditions of the county and why it is fiscally dangerous to continue with the current practice of requesting ambulance transport when these services are not necessary
       - Medical conditions and emergencies that require emergency ambulance transport versus those that do not
   - Consider the following questions while developing the public education campaign
If this campaign will correspond with the creation and implementation of a Health Services Special District, how will this campaign aid the public support of such a district?

Can this public education campaign be altered in a way that it can be used by any city, county, state, or on a national level to bring awareness to these issues?

3. Explore the option to develop a plan for Community Paramedicine training and implementation in El Paso County
   - Conduct in-depth research with multiple counties currently using community paramedicine
     - Look at case studies, including Eagle County, CO
     - Identify specific pros and cons for community paramedicine in this location
     - Identify successful practices and areas for improvement from existing counties with community paramedicine presence
   - Identify and pursue funding opportunities including grants
   - Develop a public education campaign for the county to help citizens understand this form of health care service provision
   - Develop a list of interested/capable parties that can help train new community paramedicine technicians; survey:
     - Local medical facilities
     - Educational institutions
     - Private ambulance services companies interested in having their paramedics cross-trained as community paramedicine technicians

4. Consider the potential for the Affordable Care Act to impact the financial viability of current emergency response service, both contracted and publically provided.
   - Develop an understanding of the implications of the Affordable Care Act (ACA) on the financial viability of emergency response services
     - Research the potential impacts of increased coverage to more individuals reducing the costs of providing services to the uninsured
     - Research the potential impacts of lower reimbursement rates increasing the cost burden for the service providers
     - Compare/contrast the benefits of increased coverage against the consequences of lower reimbursement rates to understand the financial impact on the emergency service providers
   - Identify whether or not there is a need for restructuring services based on the ACA’s impacts
     - Identify if there is a varying degree of impact on public versus private provision
     - Identify any avenues that could mitigate any negative effects
• Identify any avenues to bolster or magnify any positive effects
  • Understand the importance of the performance-based bonuses or penalties directed by the ACA
  • Develop recommendations for how emergency service providers can best leverage this system

5. Provide more in-depth research into the implementation of aspects of The Guardians
  • Consider the following as you research:
    ▪ As discussed in this proposal, The Guardians is an innovative and untested idea for improved emergency response
    ▪ Remember that this is a highly creative topic, so by its very nature, there is an extensive amount of room for further innovation in this field
  • Research what was included in this proposal and expand research into other aspects of this concept
  • Survey public opinion of the concepts involved including
    ▪ Telephone triage
    ▪ Telemedicine
    ▪ On-scene emergency services/assessment
  • Survey facilities and organizations that might be interested in becoming involved with the above-listed concepts
    ▪ Medical facilities
    ▪ Educational institutions
    ▪ Private ambulance service providers
  • Develop a proposal for the implementation of some or all researched concepts under The Guardians
Appendix B: Establishing a Special District

The following are key milestones in the establishment of a special district.

- Conduct a needs assessment and develop a service plan. The service plan must contain the following statutory requirements:
  - Description of proposed services
  - Financial plan
  - Preliminary engineering or architectural survey
  - Map of proposed special district boundaries
  - Description of facilities and statement addressing compatibility with county and city standards
  - Estimated costs of initial organization and operation of the district
  - Any necessary agreements with other political subdivisions
  - Information to establish compliance with C.R.S. 32-1-203
  - Any additional information required by the Board of County Commissioners

- The service plan must be submitted for approval to all Boards of County Commissioners and City Councils which would be included as part of the proposed district
- Public notice is given and public hearings are held
- The Boards of County Commissioners and City Councils approve the plan
- After approval of the service plan, a petition for district court approval must be filed
- The district court orders an election on the formation of the district
- An organizational election is conducted to decide whether or not to establish the district and to select the board of directors for the district
- If the vote passes, the court will declare the establishment of the district

Caveats to Establishment of a Special District: The service plan and organizational election must be in accordance with the TABOR Amendment.
SPECIAL DISTRICT SERVICE PLAN CHECKLIST

1. Preparation of Service Plan.

(a) Required contents 32-1-202(2), C.R.S.

i. Description of proposed services.

ii. Financial plan showing how the proposed services are to be financed, including the proposed operating revenue derived from property taxes for the first budget year of the district, which shall not be materially exceeded except as authorized pursuant to section 32-1-207 or 29-1-302. All proposed indebtedness for the district shall be displayed together with a schedule indicating the year or years in which the debt is scheduled to be issued.

iii. Preliminary engineering or architectural survey showing how the proposed services are to be provided.

iv. Map of the proposed special district boundaries and an estimate of the population and valuation for assessment of the proposed special district.

v. General description of the facilities to be constructed and the standards of such construction, including a statement of how the facility and service standards of the proposed special district are compatible with facility and service standards of any county within which all or any portion of the proposed special district is to be located, and of municipalities and special districts which are interested parties.

vi. General description of the estimated cost of acquiring land, engineering services, legal services, administrative service, initial proposed indebtedness and estimated proposed maximum interest rates and discounts, and other major expenses related to the organization and initial operation of the district.

vii. Description of any arrangement of proposed agreement with any political subdivision for the performance of any services between the proposed special district and such other political subdivision and, if the contract form to be used is available, it shall be attached to the service plan. viii. Information, along with other evidence presented at the hearing, satisfactory to establish that each of the criteria set forth in section 32-1-203, if applicable, is met.

ix. Additional information as the board of county commissioners may require by resolution on which to base its findings, pursuant to section 32-1-203.
2. Service Plan Submitted to Board of County Commissioners.

(a) Filed with the County Clerk and Recorder at least ten (10) days prior to a regular meeting.

(b) Filed at the same time with the Division of Local Government.

(c) Filed at the same time with the State Auditor.

(d) Board of County Commissioners sets processing fee in an amount not to exceed $500. Fee may be waived by Board of County Commissioners.

3. Report by County Clerk and Recorder on behalf of the Board of County Commissioners filed with the Division of Local Government in the Department of Local Affairs on form DLG-60.

4. Copy of Service Plan submitted by Board of County Commissioners to County Planning Commission or Regional Planning Commission if such commissions exist.

5. At next regular meeting after filing Service Plan the Board of County Commissioners sets a date for public hearing on the Service Plan within thirty (30) days.

6. Notice of date, time, and location of the public hearing is given by Board of County Commissioners to the Division of Local Government.

7. Notice of date, time, and location of the public hearing is given by the Board of County Commissioners to the Petitioners.

8. Notice of date, time, and location of the public hearing is given by the Board of County Commissioners to the governing body of any existing municipality or special district that has boundaries within three (3) miles of the proposed special district boundaries.

9. Notice of date, time, and location of the public hearing is published by the Board of County Commissioners, the first of which shall be at least twenty (20) days prior to the date scheduled for hearing.

10. Petitioners send letter notification of the public hearing to property owners within district.

   (a) Use County Assessor records.

   (b) Mailing not less than twenty (20) or more than thirty (30) days prior to public hearing date.

   (c) Required contents:

      i. Date, time location and purpose of hearing.
ii. Reference to type of special district.

iii. Maximum mill levy, if any, or that there is no maximum.

iv. Procedures for filing of a petition for exclusion.

11. Board of County Commissioners reviews Service Plan.

12. Hearing held by Board of County Commissioners.

13. Board of County Commissioners by Resolution approves or disapproves Service Plan within twenty (20) days after hearing.

14. Petition of organization of Special District filed with District Court.

(a) The name must consist one of the following phrases:

1. Fire protection district
2. Hospital district
3. Ambulance district
4. Sanitation district
5. Park and recreation district
6. Water and sanitation district
7. Water district
8. Metropolitan district
9. Tunnel district

(b) A general description of the facilities and improvements to be constructed, installed or purchased;

(c) Statement as to whether the proposed district lies wholly or partly within another special district or municipality;

(d) Estimated cost of the proposed facilities and improvements;

(e) Estimated property tax revenues for the first budget year;

(f) General description of the boundaries with such certainty as to enable a property owner to determine whether or not his property is within the district;

(g) General description of the boundaries of director districts, if selected by the petitioners to have director districts. The districts need to have as nearly as possible the same number of eligible electors that shall be represented on the board;
(h) Request for the organization of the district;

(i) Request for the submission to the electors of the district at the organizational election of any questions permitted to be submitted at such election.

15. Bond filed by Petitioners in an amount established by the Court.

16. Order by Court fixing place and time for hearing on Petition.

(a) Date not less than twenty (20) nor more than forty (40) days after filing Petition.

17. Notice published by Clerk of the Court, including:

(a) Pendency of the Petition.

(b) Purposes and boundaries of the Special District.

(c) Time and place of hearing.

(d) General description of the land contained within the boundaries of the proposed Special District.

(e) Information explaining methods and procedures of the filing of a petition for exclusion of territory.

18. Copies of Notice mailed to Board of County Commissioners and all other interested parties within a three (3) mile radius.

19. Hearing on Petition in District Court.

20. Court orders election.

21. Court designates election official, generally the County Clerk and Recorder.

22. Designated Election Official sets date for election.

(a) Not less than ten (10) days after publication of the required election notice.

23. Questions for ballot include:

(a) For or against the organization.

(b) Election of five (5) directors.

   i. Two to serve until next regular election.

   ii. Three to serve until second regular election.

   iii. Four-year terms thereafter.

24. Election results certified to District Court and the Division of Local Government.
25. District Court enters order establishing Special District if election successful.

26. Special District transmits certified copies of the findings and the order of the District Court organizing the Special District to the Clerk and Recorder and the Division of Local Government.

27. Clerk and Recorder records certified copy.

28. Special District delivers copy of approved Service Plan to Clerk and Recorder who retains the Service Plan as a public record for public inspection.

29. Special District delivers a copy of the approved Service Plan to the Division of Local Government.

30. Special District files map with County Assessor no later than May 1 of the year in which mill levy is to begin.
Appendix C: Additional Community Paramedicine Resources

1. Information on the most recent pilot programs in California from website: http://www.emsa.ca.gov/Community_Paramedicine

"On November 14, 2014, The Emergency Medical Services Authority (EMSA) received approval from the Office of Statewide Health Planning and Development (OSHPD) to pilot Community Paramedicine in 12 sites across California.

A listing of pilot sites, partnering medical providers, and services provided is available here.

- View the pilot project site readiness dashboard here
- Read the approval letter here
- Read the Press Release here
- Listen to the 12/23/14 airing of “Community Alert” where hosts Ted and Mike speak with EMSA Community Paramedicine Project Manager, Lou Meyer regarding the recent approval of CP pilot projects to begin in California. This Audio file is copyright of KZSB-AM1290 News-Press Radio

Beginning in January 2015, Medical Director selected Paramedics received specialized training provided by the UCLA Center for Prehospital Care, under the direction of Dr. Baxter Larmon, Director, UCLA Center for Prehospital Care & Professor at the David Geffen School of Medicine. This training was structured to build upon the training and skill sets of experienced paramedics to include patient assessment, clinical skills and familiarity with the other healthcare providers and social services available in a local community, which will lead to a more integrated approach to health care delivery. Visit OSHPD’s website to learn more about HWPP and to review an abstract of this project here.”

For questions regarding California’s Community Paramedicine, please contact:

Lou Meyer
Project Manager
Community Paramedicine-Mobile Integrated Healthcare
Office: (916) 431-3709
Lou.Meyer@emsa.ca.gov

or

Sean Trask
Chief, Personnel Standards, EMSA
Phone: (916) 431-3689
Sean.Trask@emsa.ca.gov

5. https://www.raconline.org/
6. https://www.raconline.org/success/project-examples/other-collections

Colorado Rural Health Center connects rural healthcare providers with resources necessary for success.

8. Program Evaluation Tools:
Appendix D: Additional Guardians Information and Resources

The following concepts assume implementation of a Health Services District (HSD).

1. Assess each incident and respond accordingly

First responders could provide incident management, situation assessment, and emergency medical service attention first and request ambulatory and fire, law enforcement and other specialties (technical rescue, hazmat, etc.) as needed. They would operate light-weight fuel-efficient vehicles to provide emergency medical services. If an emergency ambulance isn’t required they would provide vouchers for non-emergent paratransit services.

The HSD could pay paratransit providers to assist those who need some medical attention but can receive that attention during regular hours at a primary care physician's practice. The HSD could also operate its own fleet of vehicles that provide transportation for non-emergency situations. People at higher medical risk could be accompanied by emergency medical personnel without an ambulance when unnecessary.

This option isn't completely unlike community paramedicine which aims to provide care on the spot. However the emphasis in this option is less on having the personnel and materials to solve the medical problem on scene and more to determine whether an ambulance to an emergency room is necessary and if not to provide alternative transportation with sufficient oversight for patient safety.

2. Triage 911 calls and route calls for ambiguous service to qualified medical personnel.

These individuals would be trained to determine, in advance of an on-site team, the urgency and severity of caller needs and be trained specifically on how to engage with the caller not only to understand the emergency but also to resolve questionable needs with quick and accurate validation.

In 2012, dispatchers at MedStar in Fort Worth began routing calls of questionable validity to a nurse, trained as a medic and a 911 call operator, to review caller needs and suggest best care options.
Telecommunications operators and emergency dispatchers have limited incident information from those contacting emergency services via 911 and this initial information may not always be credible or reliable. Process steps designed to assure a correct understanding of the caller's situation and screening mechanisms with assurance loops to reduce costs and minimize risk while the caller is communicating can be derived from health care call centers who triage patient calls according to need.

3. Increase the number of eyes and ears on-scene by way of telemedicine. Two-way video via first responder broadband wireless network and continuous audio and video via secure Voice over Internet Protocol (VoIP) and bodycams. Another way to increase eyes and ears on-scene is to use the public safety broadband network (PSBN) organized by the U.S. First Responder Network Authority (FirstNet) or the State of Colorado.

With qualified personnel and a common logical understanding among them on how and to whom calls are routed for response, a great increase in knowledge concerning what is happening on the scene can be obtained by existing and forthcoming emergency mobile communications technologies. Live video, texts, photos, from multiple sources can be aggregated and communicated between the on scene and operations personnel supporting them in a manner that helps to more positively assess the changing situation. Emerging tele-medicine practices like Palidina for primary care can be adapted for emergency care especially as wireless public safety broadband networks (e.g. FirstNet and its alternatives) become available. Exploring these options helps maximize the eyes and ears on the scene early – first to assess the situation and second to support the on-scene service personnel by providing them the most needed resources of manpower, equipment and vehicles for the situation. Greater information (intelligence) provided to trained personnel improves emergency operations.
Emergency Medical Services (EMS) Video Use

The National Public Safety Telecommunications Council (NPSTC) gave a presentation on pre-hospital use of video by EMS personnel. This session focused on information being compiled by NPSTC after polling paramedics, medical directors, and emergency department managers on preferred methods of video use. A number of divergent views were identified in the report as well as some strong consensus on use of video in certain patient care scenarios. Issues of privacy, security, and video ownership were also discussed.

View the presentation and read more about the Workshop including case studies and new technologies…

4. Reorient personnel to the assess, care and refer mission. Equipping and training HSD personnel to assess, provide medical care and request resources may help initial information gathering and first interactions to be more credible and successful. The HSD could consider providing training experiences to help EMS professionals further develop their incident management and assessment skills. The HSD could increase pay for higher-value assessment skills provided by on-scene personnel. The agency could require training and experience in dispatch, logistics or technology before on-scene assessment, emergency medical service and communications on the beat.

The HSD can consider employing more of the knowledge and experience gained by veterans of recent wars in our community. Returning military personnel particularly may have the skills, training and experience to provide rapid on-scene assessment and to directly radio needed resources. Indeed, the Pikes Peak Region may be an ideal setting for this change in approach as many U.S. service men and women from the armed forces who have fought in theater in Iraq, Afghanistan or elsewhere have skills and experience that can be adapted from the battlefield to the home front. These skills could be greater used to more quickly and ably assess a situation, handle immediate concerns and communicate effectively and efficiently the needed resources to bring on scene right away.
Consider the following information on Combat Medics or 68W and those trained by this specialty as Combat Lifesavers.

**Responsibilities of the Combat Medic**

- Initial stabilizing treatment and triage
- Plan and conduct evacuation from the scene
- En route life support and clinical medicine
- Field sanitation and preventive medicine

**Skills of the Combat Lifesaver**

- Basic casualty evaluation and airway management
- Chest injury and tension pneumothorax management
- Controlling bleeding and intravenous drip therapy
- Requesting medical evacuation

Use of returning 68W Army Combat Medic and Combat Life Saver skilled army personnel into a civilian corps provides trauma specialties to the scene.

5. Share more resources. Cross-jurisdictional, cross-functional and cross-sector coordination and integration will continue to increase over time to manage cost and deliver quality service. To a degree, emergency responders already do this but most often with very cognizant silos and spheres of responsibility. But those lines are already being blurred by the level of cooperation and team integration among fire response, law enforcement and medical services personnel in an emergency. Consider for a moment the following developments in the last 35 years:

- Consolidated 9-1-1 call receiving
• The National Incident Management System (NIMS)
• Co-location of fire, law enforcement and EMS dispatch in Colorado Springs

Many functional teams across jurisdictional boundaries are being integrated today. Consider the following example:

About Us - Adams and Jefferson County Hazardous Response Authority (AJCHRA)

The Adams and Jefferson County Hazardous Response Authority (AJCHRA) is an autonomous government entity created through an Intergovernmental Agreement (IGA) between the two counties and run by a Board of Directors. The Board of Directors is selected by member agencies and represents cities and towns, law enforcement, fire departments/districts and others interested in hazardous materials emergency response. The City and County of Broomfield is also included in the AJCHRA through its relationship with the North Metro Fire Rescue Authority. The AJCHRA is funded through yearly contributions controlled by the respective boards of county commissioners as approved within the IGAs. This cooperative approach has led to “A Government Partnership Committed to Service.”

Read more...

Sharing of resources among fire districts in the Denver north metro area developed into a completely integrated and holistically managed set of resources among personnel, equipment and facilities for Hazardous Materials and Technical Rescue response without any change in jurisdictions but by cooperation via an Intergovernmental Agreement. An AJCHRA-like model for ambulance services in El Paso County exurbs would still need to be reconciled with a status quo precedent to contract with an ambulance service provider as few districts have money or the mandate to institute these services on their own. But a growing capability modeled off of AJCHRA's success over time is possible.

6. Shift from risk avoidance to risk mitigation. In 2008, the US Air Force Civil Engineer reviewed all functions under its purview. Firefighting in the US Air Force at military installations had been assuming the need to provide a response to two major incidents simultaneously as an essential requirement for their operation. But in review of the data, such situations were extremely rare.
Subsequently, the Air Force made the deliberate decision to shift from a risk avoidance model to one of risk mitigation. By reducing the readiness requirement, operational costs could dramatically decrease, and some of the cost savings from this decision could be re-invested to mitigate the slightly increased risk. Fire Station Number 2 on Peterson Air Force Base remains in cold storage today.

Fundamental changes to reduce costs, increase revenue, and provide quality service lie more with what we can do within our current setting than whether we can significantly change that setting. Changes in public perception, finance, operations, service, may have an equal if not greater effect than political change through a referendum with the electorate. Increasing local government authority isn't the only means to a viable solution. Many of the most essential business transformations depend more on changes from within than with external structure and political opportunities.
Imagine having a heart attack and the only medical center within 50 miles is closed for the day and 9-1-1 can't find an available ambulance or paramedic to help you.

What sounds like a movie plot happened in real life for one Westcliffe woman whose husband died approximately 45 minutes after calling 9-1-1.

Christine Lang filed lawsuit against the Custer County Medical Center, only to have her case dismissed under the Colorado Governmental Immunity Act.
She says she doesn’t care about the money, she just wants answers about why the small county with just over 4,000 people didn’t have a single ambulance or emergency responder available to try and save her husband.

The morning of January 6, 2013 started out like any other day for Christine, until her husband, Bill, began having chest pains.

“He kept up with his doctor,” she said when News5 inquired about Bill’s prior medical history. “There was no indication of heart problems whatsoever.”

Christine was worried and called the Custer County Medical Clinic.

“It was my understanding we had 24-hour emergency care, but I got an answering machine and was told to call 9-1-1,” she said.

On the medical clinic’s website, they promise to provide “emergency medical/ambulance service” 24-hours a day.

It’s even stated in a contract the clinic signed with the County more than two decades ago.

What’s on paper is not what’s reflected in the 9-1-1 audio tapes obtained by News5.

“The ambulance that I have on-duty has just left St. Thomas More Hospital so I’m trying to get a second one,” the dispatcher said.

Christine asked, “Is there anything I can do until then?”

“Just make him comfortable,” the dispatcher said. “Let me try once more (to get an ambulance).

The dispatcher keeps Christine on the phone for 7 minutes before breaking the bad news.

The dispatcher asked, “Do you think he (Christine’s husband) would be able to make it in your car? Can you drive him down?”

Christine replied, “Yes. To Pueblo?”

“To Pueblo or Canon City,” the dispatcher said.

Christine replied, “There’s nobody to take us and help us?”

“There isn’t at the moment,” the dispatcher said. “I’m so sorry. I have nobody on call and nobody extra. Like I said the ambulance is just on their way from St. Thomas More.”

St. Thomas More Hospital is 51 miles away from Westcliffe.

The dispatcher eventually tells Christine they can meet the ambulance halfway.

“We get in the car and start driving,” Christine said. “I was terrified. I knew something was wrong.”

Just past mile marker 18 is where things went from bad to worse.
“He cried out (screamed), Christine explained. “I pulled over to the side of the road as quickly as I could and that’s where he passed.”

An ambulance arrived nearly an hour after the initial 9-1-1 call came in.

“CPR is in progress,” a paramedic stated over the radio.

By the time CPR was performed, it was too late. Christine's husband was pronounced dead on the side of the highway.

"If you're in the car having a heart attack, your spouse or loved one has no way to help treat you," Tamera Rosenbaum, Director of Cardiovascular Services, Neurosciences and Critical Care for Memorial Hospital said. “All they can do is drive faster.”

Rosenbaum's advice to help a person suffering from a heart attack contradicts what the dispatcher asked Christine to do.

“You've got a 9-1-1 operator on the phone with you so if that patient starts to decompensate, there's somebody on the phone who can walk you through CPR,” she said. “If you were driving somebody in the car, you can't do CPR while you're driving which is why that person probably died.”

The dispatcher never walked Christine through CPR, a second ambulance from another county or district was never called, and a Flight for Life helicopter wasn't immediately dispatched. It arrived at nearly the same time the ambulance showed up.

We asked Christine whether she believed her husband would still be alive had Flight for Life helicopter been dispatched immediately.

“I believe he would be alive,” she said. “Perhaps he wouldn't have made it, but at least he would have had a chance. He didn't have a chance.”

A year after Bill died, Christine filed a wrongful death lawsuit against the clinic, alleging they were negligent and broke their “24-hour emergency services” contract.

“It's like Bill's life wasn't worth it to investigate and find out what happened,” Christine said. “I think they (the clinic) are afraid to admit a little bit of guilt and nobody wants to be forthcoming with any information.”

Under the Colorado Governmental Immunity Act, the law lays out what a person can sue a government entity or employee for.

“There is not a broad ability to be able to sue first responders,” attorney Gordon Vaughan said.

Vaughan says the Colorado Governmental Immunity Act is meant to protect public employees like first responders from being held liable in cases like Christine's, and there are few exceptions.

“There is one provision under the immunity act that provides that if a public employee willfully and intentionally tries to hurt someone, there is an exception that provides for a claim against that individual,” Vaughan said.
Christine's case didn't fall under this category and attorneys for the medical clinic argued her claims do not constitute a lawsuit.

According to the county's emergency dispatch center supervisor, no additional investigations, disciplinary actions, or procedural changes have been made.

However, newly elected Sheriff Shannon Byerly says they have since tweaked how they handle these type of calls. You'll hear about these changes during part two of our story Thursday night at 10 p.m.

Christine hopes by speaking publicly, the County and medical clinic will take another look at their policies and what procedures may not have been followed.

Delwin Lester, the executive director for the Custer County Medical Center will sit down Wednesday morning with News5 to talk about their operations why there's a disconnect over the services Mrs. Lang believes they should be providing to residents in the county.

Meanwhile, Mr. Delwin responded to our initial inquiry via email:

“In regards to Ms Lang’s allegations, due to various reasons not explained by her, her law suit was dismissed- TWICE. Her case has been investigated by several entities, and on separate occasions, dismissed. However, we understand Ms Lang’s deep felt hurt from the loss of a loved one, and we extend our deepest sympathies to her and her family. The District does not operate a hospital but a Rural Health “Clinic”, and under the guidelines for a CMS certified RHC, we operate an outpatient clinic on a limited bases and not 24 hours with ER as a hospital does. Also, one of Ms Lang’s concerns was the slow response of our EMS to her 911 call. However, our EMS was already in route with a patient to another hospital, and given the time frames involved from call, dispatch to death, it was doubtful even Flight for Life could have arrived prior to Mr Lang’s expiration. Again, our deepest sympathies for Ms Lang’s loss, but in a frontier community with extremely limited resources, we strive to serve knowing we have chosen to live in very secluded surroundings.”

Lester adds an updated contract was submitted to county commissioners after Mr. Lang's death and he'll discuss those changes Wednesday morning.

In October 2014 Custer County underwent consultative visit to “review and evaluate the components of the EMS and trauma system in order to provide recommendations for system improvement and enhancement.” Here is a link to the full report: