Colorado Department of Public Health and Environment
Emergency Medical and Trauma Services

Standardized (Regional) Needs Assessment Project

Northeast Colorado
Regional Emergency Medical and Trauma Advisory Council
Final Report

A report from:

The Abaris Group
Walnut Creek, CA

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Colorado Department of Public Health and Environment
Emergency Medical and Trauma Services

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Northeast Colorado RETAC

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Executive Summary

The Abaris Group conducted a needs assessment for the Northeast Colorado Regional Emergency and Trauma Advisory Council's (NCRETAC) Emergency Medical and Trauma Services (EMTS) system beginning in September 2009 and concluding in April 2010. The assessment included onsite visits and interviews with the NCRETAC stakeholders, the use of two surveys; a standardized Benchmarks, Indicators, and Scoring (BIS) survey instrument and a problem ranking survey. The comments from the onsite assessments were formatted into a Strengths, Weaknesses, Opportunities and Threats (SWOT) format and the data from the two surveys was entered into several spreadsheets for analysis. This report contains the results of the needs assessment and recommendations for the NCRETAC's consideration to enhance the EMTS system in Northeast Colorado.

The Northeast Colorado RETAC has good representation and participation from the EMTS disciplines and stakeholders in the Northeast Colorado region. The current way RETAC Board members are selected assures a balanced representation from each county in terms hospital and pre-hospital providers. The NCRETAC has a comprehensive and aggressive biennial plan that addresses the needs of the region based on RETAC strategic planning sessions, previous EMTS system assessments and surveys conducted regarding EMTS system issues.

The NCRETAC Board uses a regional approach to EMTS and has accomplished several regional EMTS projects, including mass casualty incident planning and educational curriculum, outreach education and training for both initial and continuing education, and the development of the Northeast Colorado Physician Advisory Board. The NCRETAC website is a great resource for EMTS information in the region as well as statewide.

The overall BIS scores from respondents were fairly low, with average scores of 3 for the agency and 2 for the system. Hospital providers, emergency management, and pre-hospital providers gave similar scores for both their agency and the system. The majority of respondents scored most categories with either twos or threes, indicating that these categories are either still in the planning or discussion phase, or not comprehensively established. Law Enforcement gave a low average score of one, indicating that respondents do not conduct/participate in research efforts. For many topics, the most common system score was "don't know," indicating that there seems to be very little knowledge about the system's efforts.

The issues that were identified as most challenging for all respondents were Agency Funding/Financial Viability, Recruitment and Retention of Personnel. The least challenging issues were Administrative Support, Cooperation with Other Agencies, and Medical Director Involvement. Overall respondents reported that Support from RETAC was also one of the least challenging issues.

Because of the diversity between urban, rural and frontier regions within the RETAC there are differences in the challenges faced by the NCRETAC stakeholders. The level of care ranges from BLS to ALS provided by both paid and volunteer staff. The NCRETAC and its activities in support of enhancing the EMTS system is critical to the smaller rural/frontier agencies.

The recommendations for the Northeast Colorado RETAC include both short-term and long-term activities. The council members should review and prioritize the recommendations for the region. Inclusion of these recommendations into the biennial plan is highly encouraged.

Background and Project Overview

In September 2008, the EMTS Section, within the Health Facilities and Emergency Services Division of the Colorado Department of Public Health and Environment (CDPHE) notified The Abaris Group of its intent to award to the firm a contract to conduct comprehensive assessments of the EMTS systems of 11 regional emergency medical and trauma advisory councils (RETACs) of Colorado over the next three fiscal years, anticipating three or four assessments may be completed each fiscal year. Colorado Revised Statute (CRS), 25-3.5-704 (2) (c) (II) (F), requires "The identification of regional EMTS through the use of a needs-assessment instrument developed by the department; except that the use of such instrument shall be subject to approval by the counties and city and counties included in a RETAC." The EMTS Section, in partnership with Colorado's RETACs, established a task force to address a Standardized, regional Needs Assessment Project (SNAP). The goal of this project is to support each of Colorado's RETACS in completing an assessment process as required by statute, but more importantly to assess local and regional EMTS in a way that provides consistent results that can be the basis for future development of biennial plans that addresses those needs and accurately identifies the policies and resources necessary to meet the future system requirements.

In 2006, the Western RETAC completed a comprehensive assessment that was funded through a grant from the Department of Local Affairs (DOLA). A requirement of the DOLA grant was that all assessment tools, products and processes of the Western RETAC model would be made available to the RETACs across the state of Colorado for possible standardization and replication. The SNAP Task Force reviewed the Western RETAC model which used onsite assessments of the RETAC stakeholders, a problem ranking survey, and an assessment instrument that included benchmarks, indicators, and scoring (BIS) sections based on the 15 trauma/EMS components identified within the Colorado Administrative Code. The SNAP Task Force modified the BIS assessment instrument to measure Colorado's EMTS system development from a RETAC perspective. (For more information on the BIS instrument, read the WRETAC final report available on the EMTS website.)

Assessments were completed on four RETAC in the first year of this project. The second and third years of this project were combined with the goal to complete the remaining 8 RETAC assessments by June 30, 2010. In collaboration with staff from EMTS and the SNAP Task Force, the eight RETACs for the second-year assessment were divided into two groups.

<u>July - January</u>
- Northeast Colorado RETAC
- Northwest RETAC
- Plains to Peaks RETAC
- Southeastern Colorado RETAC

<u>January – June</u>
- Foothills RETAC
- Mile-High RETAC
- Southwest RETAC
- Western RETAC

Methodology

The methods utilized for the NCRETAC assessment consisted of the following:

- Review of documents – Several documents related to the EMTS systems in Colorado, including relevant CRS, NCRETAC Biennial Plan, NCRETAC agency profiles, NCRETAC meeting minutes, NCRETAC budget and 2002 NCRETAC Needs Assessment were reviewed.
- Development of RETAC specific questions – The BIS instrument is designed to accommodate additional RETAC specific questions related to the 15 Colorado trauma/EMS components. The NCRETAC developed seven specific questions related to cardiac care in the region.
- Attend NCRETAC Meeting – The Abaris Group attended the NCRETAC board meeting prior to the onsite assessments, presented an overview of the SNAP and introduced the BIS instrument and problem ranking survey to the NCRETAC Board members.
- Distribution of BIS and Problem Ranking Survey – The BIS instrument and problem ranking survey were provided to the NCRETAC stakeholders electronically and in paper form.
- Onsite Assessments – In collaboration with the NCRETAC coordinator, The Abaris Group met with a sampling of the NCRETAC stakeholders. A SWOT analysis of the NCRETAC was performed with the information provided by the NCRETAC's stakeholders.
- Tabulation and Analysis of BIS and Problem Ranking Survey – The returned, completed BIS data and completed problem ranking surveys were entered into a data base. The BIS scoring and problem rankings were analyzed.
- Conclusions and Recommendations – Based on the data from the onsite assessments, BIS and problem ranking survey, conclusions and recommendations for NCRETAC system enhancements were identified.
- Draft Final Report – A draft report with conclusions and recommendations was submitted to the NCRETAC Coordinator and Chairperson for confirmation of factual data.
- Presentation of the Final Report – The final report was presented in an open forum to the entire NCRETAC Board.

Overview of the Northeast Colorado RETAC

The NCRETAC consists of nine counties; Jackson, Larimer, Logan, Morgan, Phillips, Sedgwick, Washington, Weld and Yuma. NCRETAC is the largest RETAC in Colorado; both in square miles and the number of counties, most RETACs are comprised of five to six counties. The NCRETAC Board is composed of 18 voting members and a paid full-time regional coordinator. There are two Board members from each county representing both pre-hospital and hospital disciplines. The NCRETAC Bylaws allow ex-officio members to be appointed to the Board representing specific disciplines as needed. The organizations currently represented on the RETAC Board include the following:

Jackson County

- Jackson County Ambulance
- North Park Hospital District

Larimer County

- Thompson Valley EMS

- Trauma Center of the Rockies

Logan County
- Life Care Medical, Inc.
- Sterling Regional Medical Center

Morgan County
- Morgan County Communications
- Morgan County Community College

Phillips County
- Haxton Ambulance
- Melissa Memorial Hospital

Sedgwick County
- Sedgwick County Ambulance
- Sedgwick County Hospital

Washington County
- Washington County Ambulance
- Washington County Ambulance

Weld County
- Weld County Paramedic Service
- Northern Colorado Medical Center

Yuma County
- City of Yuma Ambulance
- Wray Community District Hospital

The Council has an elected president, vice-president, a secretary, and a treasurer. The NCRETAC Bylaws allow for the establishment of standing and special committees to address specific EMTS and RETAC issues. The standing committees include:

- Executive Committee
- Finance Committee
- Professional Committee
- Training Committee
- Bylaws Committee

- Facility Committee
- Pre-hospital Committee
- Data/Quality Committee

Many of the NCRETAC projects are managed by these committees or ad hoc or task force committees. Current NCRETAC ad hoc committees include an Injury Prevention Sub-committee and the SNAP Task Force.

The NCRETAC meetings are held monthly and committee meetings are held as necessary. The meeting location is in Greeley at the North Colorado Medical Center. The NCRETAC meetings are well attended by the board members and other interested EMTS stakeholders.

The NCRETAC Coordinator acts as a liaison between the RETAC agencies and various state entities, including the CDPHE, SEMTAC, other RETACs as well as other agencies or organizations that affect the concerns and decisions of the NCRETAC. The NCRETAC Coordinator is extremely busy with day-to-day RETAC business.

The Northeast Colorado RETAC EMTS system consists of over 100 EMTS agencies or facilities:

- 100 non-transport agencies, including volunteer fire departments
- 17 transport agencies
- 2 Level II hospitals/trauma centers
- 4 Level III hospitals/trauma centers
- 7 Level IV hospitals/trauma centers
- 9 State approved training center/groups
- Public Safety Answering Points (PSAP)
- County dispatch centers

Other agencies include law enforcement, dispatch centers, public health, county EMS councils, and emergency management. Staffing of NCRETAC EMTS pre-hospital agencies includes a combination of paid and volunteer personnel; there are more paid personnel in Larimer and Weld counties and in the eastern counties, EMS is primarily provided by volunteer or part-time personnel.

Northeast Colorado RETAC Onsite and Offsite Activities

The Abaris Group consultant attended the NCRETAC meeting on September 15, 2009. At that meeting, an overview of the SNAP was provided and the BIS and problem ranking survey were introduced to the council members. The consultant also attended the Morgan County and Weld County EMS Council meetings and was able to speak about the SNAP for Northeast Colorado.

Onsite assessments were conducted on September 15 - 17 and December 14 - 15, 2009. Onsite assessments consisted of traveling to a sample of the EMTS agencies and organizations' primary place of business or a mutually agreed upon location and interviewing one or more

representatives. Participants were asked to provide an overview of their organization and the NCRETAC, including a SWOT assessment of both related to the 15 Colorado EMTS components. The results of the SWOT analysis are included in this report.

The following 16 agencies/organizations participated in the onsite visits or telephone interviews:

- Colorado Plains Medical Center
- East Phillips County Ambulance
- Life Care Medical, Inc.
- Melissa Memorial Hospital
- Morgan County Ambulance Service
- Morgan County Communications
- Morgan County Community College
- North Colorado Med Evac
- North Colorado Medical Center
- Poudre Valley Hospital Ambulance Service
- South Y-W Ambulance Service
- Sterling Regional Medical Center
- Thompson Valley EMS
- Washington County Ambulance Service
- Weld County Paramedic Service
- Wray Community District Hospital

Two Town Hall meetings were conducted, one on the evening of December 14, 2009 in Akron, CO and the second the afternoon of December 15, 2009 in Greeley. A SWOT analysis format was used to stimulate discussions related to each of the 15 Colorado trauma/EMS components. Notes were taken during the meeting and are summarized in this report.

Representatives from the following 13 agencies and organizations were in attendance at the Town Hall meetings:

- Frederick-Firestone Fire Protection District
- McKee Medical Center
- Morgan Community College
- Morgan County Ambulance
- Morgan County Communications
- North Colorado Medical Center
- Poudre Valley Health System – Medical Center of the Rockies
- Sterling Regional Medical Center
- Thompson Valley EMS

- Washington County Ambulance
- Washington County Office of Emergency Management
- Weld County Regional Communications Center
- Yuma District Hospital

In total, there were 25 agencies or facilities involved in this assessment process with over 38 individuals providing some form of input either through onsite or telephone interviews, town hall meetings, or the completion of the BIS or problem ranking survey. The groups that were underrepresented in this assessment are the EMTS agencies in Jackson County.

Offsite activities included reviewing several documents and other sources related to the NCRETAC. These sources include the following:

- NCRETAC 2009 – 2011 Biennial Plan
- NCRETAC 2009/2010 budget
- NCRETAC Bylaws (2004 edition)
- Recommendations from Needs Assessment in 2002 and status
- Multiple documents available on the NCRETAC website
- Internet search on NCRETAC

Onsite SWOT Analysis

There were onsite or telephone interviews with representatives of 16 NCRETAC EMTS agencies/organizations. There were 13 NCRETAC EMTS agencies/organizations represented at the Town Hall meetings. Overall, either through individual interviews or by attending the Town Hall, input was received from 25 NCRETAC EMTS agencies and organizations.

Overall the NCRETAC and RETAC Coordinator have been very effective in meeting the needs of the EMTS stakeholders in the region. There are several regional projects that have been accomplished or are ongoing. The RETAC Coordinator is very knowledgeable about the region, well respected and been in the position for several years. The NCRETAC has been successful in obtaining state grant funds for several regional and local EMTS projects or equipment. The RETAC conducts annual strategic planning meetings to establish goals to enhance EMTS in the region. There is good integration of health services, not only with pre-hospital and hospital agencies, but there is participation from emergency management, law enforcement dispatch and educational entities. EMTS research is a low priority for the RETAC primarily because of concerns with protecting data. Legislative and regulatory concerns are not a major concern for the RETAC and the RETAC coordinator keeps up to date and disseminates any issues related to this category either by email, at RETAC meetings, and by updating the NCRETAC website. The RETAC was also very active in the passage of legislation including Senate Bill 2. System and agency/facility finance issues vary across the RETAC with the frontier/rural agencies/facilities being more challenged. Human resources are a challenge for the frontier/rural agencies and facilities with recruitment of volunteer EMS personnel. Some of the frontier/rural hospitals have difficulty in finding physicians for the hospital. The NCRETAC has done an outstanding job providing and coordinating the initial and continuing education of both pre-hospital and hospital providers through shared training, scholarship funds, and outreach programs such as the annual; paramedic refresher program. Public access to

911 is good and there are consolidated 911 communications facilities in some of the counties. A few of the facilities are state-of-the-art centers, provide emergency medical dispatch services, and are compliant with the FCC's latest communications standards.

The NCRETAC's involvement in the evaluation of the system has been ongoing with regular strategic planning sessions and periodic regional assessments. Almost all of the EMTS agencies/facilities use the 800 MHz radio system, although several stakeholders expressed the need for more training, especially for inexperienced or infrequent users of the 800 radios. Medical direction is provided by several physicians, some providing medical direction for more than one agency. The NCRETAC created the Northeast Colorado Physicians Advisory Board (NPAB) that meets at least quarterly to discuss medical direction concerns from a regional basis. There have been some discussions on standardized protocols with agency specific variations. The level of clinical care meets the national standard for both BLS and ALS care, BLS being provided in most of the frontier/rural areas and high-level ALS in Larimer and Weld counties, including hypothermic treatment for cardiac arrest patients. Almost everyone interviewed indicated that they felt the level of clinical care was outstanding. The RETAC has developed a RETAC specific mass casualty care plan and curriculum that can be utilized throughout the region. The plan is exercised routinely with the involvement of the Northeast All Hazard Region. Public education and illness/injury prevention is more agency/county specific, although the RETAC does make funds available to the counties for public education or prevention programs. Information systems vary as well from the urban areas and frontier/rural areas but many agencies are using electronic patient care reporting systems. A few of the Level IV Trauma Centers submit data to the state on a voluntary basis.

The comments from the interviews and Town Hall meeting were organized in a format indicating strengths, weaknesses, opportunities, and threats (SWOT). These comments are summarized below.

Strengths

- NCRETAC Board Members – Long working history and cohesiveness as a group; diversity of Board members (small and large agencies represented); very well organized and effective
- RETAC Coordinator – Well respected and very knowledgeable; good Board support; driving force, understands and integrates urban, rural and frontier EMTS issues; advocates for all regions of the RETAC; good liaison, attends meetings and updates stakeholders
- Integration/Cooperation – Hospitals and pre-hospital personnel work well together and assist each other as needed
- Medical Direction – The creation of the Northeast Colorado Physician Advisory Board (NPAB); regular meetings of NPAB
- RETAC Communications – NCRETAC website; regular well attended RTEAC meetings; teleconferencing, V-Tel system
- Education/Training – RETAC focused on education; multiple and shared education and training programs; no charge for most training; ALS refresher program; scholarship/tuition assistance reimbursement program; outreach training/education programs
- Size of RETAC – Many EMTS resources available in the region; larger agencies able to assist smaller ones
- Grants/Funding Opportunities – Grants have been extremely beneficial to enhance EMS delivery in the region
- Mass Casualty Plan – Developed by RETAC; Plan exercised with drills

Weaknesses

- Size of RETAC – Long distances to travel for meeting or training; different issues because of the diversity between counties (urban/rural/frontier); east/west division based on call volumes and resources available
- RETAC Coordinator Workload – Coordinator extremely busy
- Personnel/Staffing – Recruitment and retention of EMS and pre-hospital volunteer EMS agencies and some of the rural hospital personnel; lack of management depth; lack of succession planning for rural/volunteer agencies
- Patient Transfers – Patient destinations sometimes based on alliances between EMS and specific hospitals
- RETAC funding – Concerns about the need for additional funding for operational needs
- Quality Improvement – Limited system activity because of concerns with patient privacy (HIPAA) concerns; no common data collection process

Opportunities

- Funding – Continue to apply for grant funds from all sources; enhance ambulance/hospital collections
- Education/Training – Continue to enhance the education/training opportunities, including the annual ALS refresher programs
- Public Education/Injury Prevention – Coordinate current public education and injury prevention programs on a regional basis; consider the use of pre-packaged programs and regional themes and programs
- Regionalization/Standardization – Continue to implement and fund regional projects; consider standardization of protocols and medical direction; regional CQI program

Threats

- Funding –RETAC regional projects dependent on current funding; future financial stability; additional staff support
- Personnel/Staffing – Retention/recruitment of hospital and EMS providers in rural/frontier areas; reliance on EMS volunteers in many communities

Benchmarks, Indicators, and Scoring (BIS) Instrument – Results, Analysis and Recommendations

This section of the report contains the analysis of the BIS instrument including both the agency/facility scores and the system (Northeast Colorado RETAC) scores. There were a total of 19 completed BIS surveys returned, 6 from pre-hospital providers, 11 from hospital providers, one from emergency management and one from law enforcement dispatch provider. Some stakeholders only completed the BIS or the problem ranking survey, most respondents completed both surveys.

There was variation among how the respondents answered providing insight into how respondents view the efforts of both their agencies and the EMTS system in Northeast Colorado.

The overall scores from respondents were fairly low, with average scores of 3 for the agency and 2 for the system. Hospital providers, emergency management, and pre-hospital providers gave similar scores for both their agency and the system. The majority of respondents scored most categories with either twos or threes, indicating that these categories are either still in the planning or discussion phase, or not comprehensively established. Law Enforcement gave a low average score of one, indicating that respondents do not conduct/participate in research efforts. For many topics, the most common system score was "don't know," indicating that there seems to be very little knowledge about the system's efforts.

Integration of Health Services

Just over 40 percent of respondents stated that their agency participates in a regional committee/group that meets regularly to develop and implement a comprehensive system plan. An additional, some said their agency/facility has accomplished even more, some by developing, implementing and maintaining a comprehensive plan (21.1 percent) and some by using a multidisciplinary committee (26.3 percent).

Similarly, respondents generally felt that the RETAC is involved in developing a system plan, with 36.8 percent saying that a multidisciplinary stakeholders group regularly reviews the plan and progress towards system integration. On the other hand, 26.3 percent felt that there is an unwritten/informal process that is used when convenient, although it is not regularly or consistently used.

The onsite and telephone interviews validated that the system is extremely well integrated with very few exceptions, some felt fire department involvement could be better, especially with the small volunteer fire departments. Specific disciplines are invited to participate on an ad hoc basis, i.e. public health's involvement in the pandemic flu outbreaks.

Recommendations

- Consider inviting other non-EMS or hospital representatives to RETAC meetings on a regular basis
- Consider enhancing small volunteer fire department involvement in RETAC activities
- Ensure all stakeholders receive RETAC EMTS information and meeting minutes

EMTS Research

Just under one-third of participants believe that their agency has policies that allow contribution of data to research efforts. However, another third of the respondents said that their agency/facility conducts limited local research, but does not on a broader scope. In general, respondents did not know whether the system conducts or is involved in any research efforts.

Interviews with NCRETAC EMTS stakeholders revealed very little research is being done on a system basis.

Recommendations

- Determine if there is any interest in conducting research through the RETAC
- Identify resources, both personnel and financial, to undertake research if the RETAC so desires
- Continue the current periodic survey process used by the RETAC
- Encourage system stakeholders to participate in research conducted by the few agencies/facilities that do
- Collaborate with hospitals and educational institutions to conduct research in areas of mutual interest

Legislation and Regulation

Over half of the respondents (57.9 percent) claimed that their agency was in full compliance with laws and regulations and that their agency operates based on laws/regulations, and another 42.1 percent said that they are in compliance for most requirements. The majority also stated that the decision making and operations of the agency are in compliance with applicable policies, laws, rules, ordinances, and contracts. Respondents were divided regarding the regularity of external reviews of their operations, with some saying that they have regular objective external reviews and an equal number saying they have never had an objective external review.

Most respondents stated that they do not know whether the system's decision making and operations are in compliance with laws and regulations, or whether or not they regularly review their plans, policies, and operations.

Recommendations

- No major recommendations, the RETAC Coordinator provides adequate information to the EMTS agencies/facilities
- Review the need for an external review of the RETAC and EMTS agencies/facilities regarding compliance to legislation and regulations

System Finance

Most respondents believed cost, charge, collection, and reimbursement data are collected or analyzed. The majority stated that budgets are produced and approved by the governing body and that progress against the budget is monitored. Respondents were divided on whether financial resources exist to support their planning, implementation, and ongoing management.

Most respondents do not know if the system collects or analyzes data, or if there are financial resources for the planning, implementation, and ongoing management of the system. The majority of respondents believe that RETAC staff and leadership are involved in developing an annual operating budget.

The NCRETAC has been very active with system finance issues, including seeking and obtaining grants, EMS fee surveys, and the provision of information related to EMTS funding opportunities.

Recommendations

- Provide the NCRETAC financial data, including the annual operating budget and monitoring reports to system stakeholders on a regular basis
- Continue to assist EMTS agencies identify and apply for grants to enhance EMS delivery

Human Resources

Respondents said that their agency/facility has established recruiting policies, standardized feedback processes, and is staffed appropriately. On the other hand, many respondents did not know about these same topics at the system level.

Recruitment and retention is a major issue for many of the volunteer agencies, educational needs of personnel are being met with several outreach programs for initial and continuing education.

Recommendations

- Consider a system wide focused recruitment and retention program
- Consider sharing volunteer EMS personnel between EMS transport agencies

Education Systems

The respondents reported differences in the extent of continuing education efforts at their facilities and how the effectiveness of these programs is monitored and competency evaluated.

Many respondents did not know of the system's efforts, and those that did varied in how they perceived these efforts. Some believed that the RETAC does provide at least some coordination to ensure that education programs meet the needs of the EMTS system.

Based on the interviews and a review of NCRETAC documents, education and training is clearly a priority for the RETAC.

Recommendations

- Continue to enhance the current regional education and continuing education system
- Continue to share educational opportunities among EMTS agencies/facilities
- Consider an education/training needs survey of NCRETAC stakeholders

Public Access

Almost 75 percent of respondents agreed that there is a 911 system in place, which includes Enhanced-911, Wireless-911 and other emerging technologies. Approximately 32 percent believe that information is gathered from the public regarding their ability to access the system, however another 36.8 percent feel don't know if this is the case. Most also feel that the system has at least begun to identify the needs of special populations, and some believe that the system has already identified these special populations and made accommodations for their needs.

Most respondents believe that the RETAC has developed a comprehensive communications plan, but many do not know if a needs assessment has been conducted or if special populations have access at the system level.

The region has good public access to 911 and at least two consolidated dispatch/911 center, Morgan County Communications and Washington – Yuma Combined Communications that are FCC Phase II compliant.

Recommendations

- Explore the feasibility of creating additional consolidated state of the art emergency medical dispatch centers
- Provide consistent pre-arrival instructions in the frontier/rural counties, possibly by transferring calls that need pre-arrival instructions to a dispatch agency that does provide them

Evaluation

Responses with respect to having computer based analytical tools for monitoring the system's performance ranged from 26.3 percent who said they don't know to 52.7 percent saying they have the computer system in place (21.1 percent), they have the analytical tools available (21.1 percent), and upgraded and technically advanced computer systems and analytical tools were available (10.5 percent).

Respondents reported that they are generally unaware of how the RETAC uses computer systems to collect and analyze patient care data, or whether the RETAC is a leader in research and evaluation of EMTS activities.

Many stakeholders expressed reluctance to conduct any system QA or QI activities because of concerns that QA/QI data would be discoverable.

Recommendations

- Address QA/QI information concerns with discoverability
- Determine what data is currently collected that can be used to evaluate the system
- Develop a list of data components useful for system evaluation
- Consider the development of a research and evaluation agenda with service providers, hospitals, NPAB and the medical community at large
- Assist pre-hospital agencies in developing a CQI program or facilitate their participation in another agencies CQI process

Communications System

The majority of respondents stated that their agency has adopted a system communications plan, however 42.1 percent of respondents say that issues of integration and inter-operability have not been fully resolved. Over one-third of respondents (36.8 percent) said that needs assessments are conducted and procurement needs are coordinated with other agencies, jurisdictions, and disciplines. Respondents were split as to whether the communications system is routinely evaluated or not.

Most respondents did not know whether the RETAC provides initial and continuing education on the communications systems.

A common concern voiced by NCRETAC stakeholders was the need for additional training for inexperienced or infrequent users of the 800 MHz radios. The NCRETAC has an active Communications committee and has conducted surveys of 800 DTR users.

Recommendations

- Provide routine ongoing education and training on the use of the 800 DTR system for inexperienced or infrequent users
- Incorporate the communications system components in annual drills and exercises to test reliability and interoperability

Medical Direction

Almost all of the respondents said that their agency/facility has a medical director, and the majority said that their medical director has formal authorities and responsibilities, and that there is evidence that he/she has used this authority to adopt protocols, implement a quality improvement program, and to fully integrate the facility/agency into the health care system. Many also stated that protocols have been developed in coordination with other facilities, and that there is a "feedback link" to change these protocols as appropriate. Almost all respondents said that they have at least occasional retrospective medical oversight procedures for protocols, however several reported that this is neither regular nor timely.

Responses varied as to whether the RETAC provides technical assistance or monitors the medical direction, but many felt they do provide some level of technical assistance and monitoring of medical direction.

Recommendations

- Support and encourage active participation of the Northeast Physicians Advisory Board
- Survey stakeholder agencies regarding their needs for medical direction and their level of satisfaction with the current system of medical direction
- Enhance the feedback process from the Medical Director to the Pre-hospital agency director or chief

Clinical Care

The majority of respondents said that their agency has a plan which clearly defines the roles and responsibilities of personnel, and that written protocols and guidelines are regularly reviewed and updated. Only one respondent said that such protocols do not exist. Critical Care is

documented at most of the facilities. However, five respondents said they didn't know or that the documentation was not reviewed for local or regional quality and performance improvement.

The majority of respondents believe that either the RETAC is not involved in quality assessment or protocol monitoring or that the RETAC has not come up with a CQI plan.

Recommendations

- Consider moving towards standardized medical protocols with agency specific variations
- Consider the development of a regional Continuous Quality Improvement (CQI) plan or at least a template for a comprehensive CQI plan that can be adopted by system stakeholders
- Expand the implementation of electronic patient care report systems, including funding assistance for the purchase of such systems for those agencies not using ePCR systems

Mass Casualty

The majority of respondents said that formal disaster plans are either in development (15.8 percent) or in place (68.4 percent), and that working relationships exist to coordinate disaster efforts. Many also said that there is a formal system-wide analysis following all-hazard exercises, and that this often results in improvements to the plan.

Responses varied as to whether the RETAC participates in local and regional disaster planning. However, some didn't know whether the RETAC is not involved in disaster planning in any way.

The NCRETAC has developed a RETAC specific mass casualty plan and curriculum.

Recommendations

- Continue to participate in local, regional, and state mass casualty exercises and drills
- Conduct regional exercises and drills based on the RETAC MCI plan
- Develop an evaluation process for mass casualty exercises and drills

Public Education

The level of public education programs varies among the responding agencies, with a few stating that they have no public education plan in place. Additionally, many report that they have strong community support, but some also did not know what level of community support they engendered.

Most did not know if the RETAC has a public information program, assesses the needs of the general public and if they have strong community support.

There are several individual agency public education programs. The RETAC does not have a comprehensive focused public education program but does assist individual agencies with some grant funding.

Recommendations

- Assume a leadership role in the provision of public education through collaboration with the EMTS providers
- Identify agencies and organizations that currently provide good public education programs
- Partner with the hospitals and conduct public education campaigns on a rotating basis
- Develop an annual, continuous public education campaign to promote awareness of the EMTS system, including the promotion of wellness and prevention
- Continue to explore funding sources and grants, including pooling of funds to support a regional public education campaign
- Develop "off-the-shelf" public education programs that individual agencies/facilities can implement

Prevention

Most respondents said that either they do not know or they do not have a written plan for a coordinated injury/illness prevention program, but a few reported that there is a local written plan. Only one respondent said that their hospital's data is routinely provided to be used for the injury/illness prevention program. The extent to which EMTS and the public health system have linked to share injury and illness data is reported by most survey respondents to be limited at best.

As with public education, several agencies have individual illness or injury prevention programs in place; there is not a RETAC specific injury/illness prevention program.

Recommendations

- Consider having the current NCRETAC ad hoc Prevention Committee develop a coordinated comprehensive regional injury/illness prevention program
- Develop partnerships and linkages with the public health system and area hospitals to identify program
- Identify sources of information, including public health surveillance and emergency department data to identify the types of injuries and illness that may be prevented in the region

Information Systems

More than half of the respondents said that there is a data collection system in place, but there are a few that do not know or they stated that data is not routinely collected. While the majority did not know if there is an information system available, there were a few who said that their information system was in place, but needed some tweaking or they said their information system was fully integrated. Responses varied with respect to the question on using the information system to assess the system and provider performance. Over half said they did not know.

Most respondents do not know about the data collection and information systems that RETAC has in place. However those that were aware of RETAC's information system status generally report that it is limited at best.

Recommendations

- Determine what information and data sources are currently available from the EMTS stakeholders
- Identify data elements necessary to monitor and evaluate the system
- Identify funding sources for hardware and software to collect data
- Integrate pre-hospital, hospital, and trauma data to assess the quality of the regional EMTS system
- Use the integrated information to drive policy and protocol decisions
- Provide feedback to management and providers on a regular basis
- Consider a system to provide patient feedback to frontier/rural EMS providers, especially for medical patients

NCRETAC Specific Questions – Cardiac Care

Responses to the special question on cardiac care varied greatly. Many answered "do not know" to all of the questions. Almost 60 percent said that their agency/facility encourages group involvement with respect to cardiac care. On the other hand, 57.9 percent said that the agency/facility is not involved in research planning or activities. Just over half of the respondents said they support the development of efficient public service access points (the other half responded that they did not know or that the agency/facility is either not involved or is currently in development).

The majority of respondents said they did not know if their agency/facility was a leader or that they do not serve in that function or that they are beginning a dialogue. There were 9 respondents who said differently: their agency/facility engages some providers or serves as a leader in system activities or serves as a leader and is instrumental in working with providers.

Continuing quality improvement (CQI) was identified as established at some level for 9 respondents. On the other hand, one said they are not involved in CQI and two others responded that it is a goal. Seven respondents did not know if CQI was used at all. The majority of respondents said that their agency/facility plan includes regional education efforts to promote cardiac care.

Recommendations

- No recommendations – continue to collect data and study issue

Problem Ranking Survey – Results and Analysis

The problem ranking survey asked respondents to rank ten listed issues from most challenging (1) to least challenging (10). The ten issues listed on the survey were:

- Administrative Support
- Aging Building/Equipment
- Cooperation with Other Agencies
- Medical Director Involvement
- Retention of Personnel
- Agency Funding/Financial Viability
- Billing/Accounts Receivable
- Initial/Continuing Education
- Recruitment of New Personnel
- Support from RETAC

There were 22completed surveys returned, 15 from hospitals and seven from pre-hospital agencies. The issues that were identified as most challenging for all respondents were Agency Funding/Financial Viability, Recruitment of Personnel and Retention of Personnel. The least challenging issues were Administrative Support, Cooperation with Other Agencies, and Medical Director Involvement. Overall respondents reported that Support from RETAC was also one of the least challenging issues.

Table A and B below summarizes the responses by agency/organization type.

Table A

NCRETAC - Hospital Providers

Issue	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Administrative Support	10	4	8	8	8	7	8	8	8	8	4	4	10	1	8
Agency Funding/Financial Viability	6	2	5	2	1	2	4	1	6	3	10	7	1	4	7
Aging Building/Equipment	7	1	10	3	5	3	10	10	3	2	9	8	6	5	6
Billing/Accounts Receivable	5	10	6	5	9	1	1	3	4	4	7	6	5	3	3
Cooperation with Other Agencies	9	8	4	9	6	4	7	9	10	9	5	9	7	7	4
Initial/Continuing Education	3	3	9	1	4	5	3	6	5	7	2	3	4	6	5
Medical Director Involvement	4	9	7	7	10	8	9	5	7	6	6	10	9	9	9
Recruitment of New Personnel	1	5	2	4	2	10	5	2	1	1	1	2	3	8	1
Retention of Personnel	2	6	3	10	3	9	2	4	2	5	3	1	2	2	2
Support from RETAC	8	7	1	6	7	6	6	7	9	10	8	5	8	10	10

Table B

NCRETAC – Pre-hospital Providers							
Issue	16	17	18	19	20	21	22
Administrative Support	8	7	8	5	9	5	8
Agency Funding/Financial Viability	1	10	2	1	3	1	7
Aging Building/Equipment	5	2	3	3	8	7	10
Billing/Accounts Receivable	4	8	1	7	7	2	4
Cooperation with Other Agencies	9	6	9	10	6	6	9
Initial/Continuing Education	6	5	6	4	1	10	3
Medical Director Involvement	7	9	7	8	10	9	6
Recruitment of New Personnel	2	4	4	2	2	4	1
Retention of Personnel	3	3	5	6	4	3	2
Support from RETAC	10	1	10	9	5	8	5

Table C lists the frequency of each issue by rank.

Table C

NCRETAC Problem Ranking Frequency of Each Issue by Rank										
	Frequency by Rank									
Issue	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Administrative Support	1	0	0	3	2	0	2	1	1	2
Agency Funding/Financial Viability	6	4	2	2	1	2	3	0	0	2
Aging Building/Equipment	1	2	5	0	3	2	2	2	1	4
Billing/Accounts Receivable	3	1	3	4	3	2	3	1	1	1
Cooperation with Other Agencies	0	0	0	3	1	4	3	1	8	2
Initial/Continuing Education	2	1	5	3	4	4	1	0	1	1
Medical Director Involvement	0	0	0	1	1	3	5	2	7	3
Recruitment of New Personnel	6	7	1	4	2	0	0	1	0	1
Retention of Personnel	1	7	6	2	2	2	0	0	1	1
Support from RETAC	2	0	0	0	3	3	3	4	2	5

Table D lists the proportion of issue by rank.

Table C

NCRETAC Problem Ranking Proportion of Each Issue by Rank										
	Proportion by Rank									
Issue	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Administrative Support	4.5%	0.0%	0.0%	13.6%	9.1%	0.0%	9.1%	50.0%	4.5%	9.1%
Agency Funding/Financial Viability	27.3%	18.2%	9.1%	9.1%	4.5%	9.1%	13.6%	0.0%	0.0%	9.1%
Aging Building/Equipment	4.5%	9.1%	22.7%	0.0%	13.6%	9.1%	9.1%	9.1%	4.5%	18.2%
Billing/Accounts Receivable	13.6%	4.5%	13.6%	18.2%	13.6%	9.1%	13.6%	4.5%	4.5%	4.5%
Cooperation with Other Agencies	0.0%	0.0%	0.0%	13.6%	4.5%	18.2%	13.6%	4.5%	36.4%	9.1%
Initial/Continuing Education	9.1%	4.5%	22.7%	13.6%	18.2%	18.2%	4.5%	0.0%	4.5%	4.5%
Medical Director Involvement	0.0%	0.0%	0.0%	4.5%	4.5%	13.6%	22.7%	9.1%	31.8%	13.6%
Recruitment of New Personnel	27.3%	31.8%	4.5%	18.2%	9.1%	0.0%	0.0%	4.5%	0.0%	4.5%
Retention of Personnel	4.5%	31.8%	27.3%	9.1%	9.1%	9.1%	0.0%	0.0%	4.5%	4.5%
Support from RETAC	9.1%	0.0%	0.0%	0.0%	13.6%	13.6%	13.6%	18.2%	9.1%	22.7%

Conclusion

The Northeast Colorado RETAC has good representation and participation from the EMTS disciplines and stakeholders in the Northeast Colorado region. The current way RETAC Board members are selected assures a balanced representation from each county in terms hospital and pre-hospital providers. The RETAC meetings are well attended and there is always a quorum to carry out RETAC business. The RETAC President and Coordinator both provide the leadership necessary to improve the EMTS system in the Northeast Colorado. The RETAC Coordinator is highly respected and is currently meeting the needs of the EMTS stakeholders in the Northeast Colorado. The RETAC Coordinator has a large and diverse geographical area, nine counties, and has an excellent understanding of the issues affecting urban, rural, and frontier EMS systems. The NCRETAC has a comprehensive and aggressive biennial plan that addresses the needs of the region based on RETAC strategic planning sessions, previous EMTS system assessments and surveys conducted regarding EMTS system issues.

The NCRETAC Board uses a regional approach to EMTS and has accomplished several regional EMTS projects, including mass casualty incident planning and educational curriculum, outreach education and training for both initial and continuing education, and the development of the Northeast Colorado Physician Advisory Board. The NCRETAC website is a great resource for EMTS information in the region as well as statewide.

The overall BIS scores from respondents were fairly low, with average scores of 3 for the agency and 2 for the system. Hospital providers, emergency management, and pre-hospital providers gave similar scores for both their agency and the system. The majority of respondents scored most categories with either twos or threes, indicating that these categories are either still in the planning or discussion phase, or not comprehensively established. Law Enforcement gave a low average score of one, indicating that respondents do not conduct/participate in research efforts. For many topics, the most common system score was "don't know," indicating that there seems to be very little knowledge about the system's efforts.

The issues that were identified as most challenging for all respondents were Agency Funding/Financial Viability, Recruitment and Retention of Personnel. The least challenging issues were Administrative Support, Cooperation with Other Agencies, and Medical Director Involvement. Overall respondents reported that Support from RETAC was also one of the least challenging issues.

Because of the diversity between urban, rural and frontier regions within the RETAC there are differences in the challenges faced by the NCRETAC stakeholders. The level of care ranges from BLS to ALS provided by both paid and volunteer staff. The NCRETAC and its activities in support of enhancing the EMTS system is critical to the smaller rural/frontier agencies.

The recommendations for the Northeast Colorado RETAC include both short-term and long-term activities. The council members should review and prioritize the recommendations for the region. Inclusion of these recommendations into the biennial plan is highly encouraged.

NCRETAC Regional Emergency Medical and Trauma Advisory Council
Standardized (Regional) Needs Assessment Project
Benchmarks, Indicators and Scoring (BIS)

The Colorado Department of Health and Environment Emergency Medical and Trauma Services (EMTS) Division has contracted with The Abaris Group to conduct a needs assessment of each Regional Emergency Medical and Trauma Advisory Council (RETAC) areas. This assessment will consist of on-site visits with EMTS agencies and individuals, town hall meetings and analysis of an anonymous survey completed by EMTS stakeholders. The results of the assessment will be presented to the local RETAC and the Colorado EMTS Division. Your local RETAC Coordinator will be actively involved in the assessment process.

The survey below is referred to as Benchmarks, Indicators and Scoring, or "BIS." We are asking for your input by completing the BIS prior to a meeting that will be held in your community during the on-site phase of the assessment. We also hope you will be able to attend the meeting held in your community where we will review and discuss results of the BIS scoring and provide a "town hall" like forum where you can help us understand issues and challenges facing your agency, your community and your region.

To assist us in this task we have developed Indicators and Scoring that relate to the 15 components contained in the Colorado EMTS Plan. Those components are:

1. Integration of Health Services
2. EMTS Research
3. Legislation and Regulations
4. System Finance
5. Human Resources
6. Education Systems
7. Public Access
8. Evaluation
9. Communications Systems
10. Medical Direction
11. Clinical Care
12. Mass Casualty
13. Public Education
14. Prevention
15. Information Systems

For each of the 15 "Benchmarks" there are 4 indicators that relate to Structure, Process, Outcome and the RETAC. These indicators are described as follows:

1. Structure – legislation; rules or regulations; bylaws or charter; policies and procedures or authority
2. Process – Is there a process in place to implement requirements or expectations contained in the structure indicator? If so, does the process reflect the requirements or expectations contained in the structure?
3. Outcome – Are there tools in place to measure the effectiveness of the process (e.g. data collection)? Are measurements or evaluations ongoing? Is data used to drive improvements?
4. These are Regional Emergency Medical and Trauma Council (RETAC) indicators and measure or create expectations for the RETACs that support either local EMTS agencies within the RETAC or that drive statewide improvements through RETAC representation on state advisory bodies.

For each of these indicators, we ask that you mark or circle the score that most closely reflects your knowledge of or opinion of the progress toward or compliance with each indicator. As you read through the scoring, you will see that each score, from 1 – 5 describes a rank in system development. **Remember, you are ranking your own organization within the Regional Emergency Medical and Trauma system.** If you are a rural system with limited resources you may rank low in score. This does not mean you are a "bad" system. It simply reflects the reality of your resources, be they human or mechanical. If you do not have sufficient information to mark a score, mark or circle "0" = I don't know.

Please note: **In each scoring box there are boxes for 2 separate scores.** In the box marked "**Agency/Facility Score**," please score your agency or organization. In the box marked "**System Score"** please score the overall Regional Emergency Medical and Trauma System as you perceive it. In many cases, the two scores will be different. For example, you may score your agency higher or lower in disaster response capabilities than you score the overall system in your area.

During the town hall meeting to be held in your community we will have an informal discussion regarding the strengths, weaknesses, opportunities and threats (SWOT) regarding each one of the 15 EMTS components as defined by the State of Colorado specific to your RETAC. The BIS tool scores and the town hall meeting will allow each agency or system will help drive performance improvement plans and activities. This assessment process can be used 1, 2 or 3 years in the future to assist you in determining the growth in your system over time and to show your accomplishments in system improvement.

Please take a few minutes to complete the BIS prior to your community meeting. **If you plan on attending the town hall meeting, please bring the completed BIS with you to the meeting. If you cannot attend the meeting, please fax or email the BIS answer sheet to your RETAC Coordinator or The Abaris Group at 925-946-0911.**

If you have any questions regarding this assessment or the BIS, contact your local RETAC Coordinator, Jeff Schanhals at 970-774-3280, or by email ncretac@pctelcom.coop or **Ken Riddle**, The Abaris Group, at 702-287-6546, or by email at kriddle@abarisgroup.com.

NCRETAC Regional Emergency Medical and Trauma Advisory Council
Standardized (Regional) Needs Assessment Project
Benchmarks, Indicators and Scoring (BIS)

Demographical Information: (Indicate provider type and check all that apply below the provider type selected.)

__ **Pre-Hospital Provider**
__ Volunteer __ Paid
__ BLS __ ALS
__ Fire/Rescue
__ Ambulance
__ Other

__ **Hospital Provider**
__ Trauma Center Level
__ MD
__ RN
__ Administration

__ **Other Provider**
__ Law Enforcement
__ Dispatch/Communications
__ Emergency Management
__ Public Health
__ Elected Official
__ Other

Note: The word "system" in this survey is defined as the local RETAC comprised of multiple counties.

Emergency Medical and Trauma System Component (EMTS): Integration of Health Services	
1. All disciplines that influence patient care within the system work together within their regional communities as a whole to assure integration and coordination of patient care.	
Structure Indicator	*Scoring*
1.1 Your agency/facility participates in multidisciplinary planning within your regional system.	0. Don't Know 1. There is no evidence of partnerships, alliances, or working together to integrate the system. 2. There have been limited attempts to organize local groups, but to date no ongoing regional system committees meet regularly to design or implement a regional system. 3. Our agency/facility participates in a regional committee/group that meets regularly to develop and implement a comprehensive system plan. 4. Our agency/facility either brings together or participates in, a multidisciplinary EMTS group that is developing, implementing, and maintaining a comprehensive system plan. 5. Our agency/facility has brought together or participated in a stakeholder group to assist with, the development and implementation of the EMTS system, through a multidisciplinary committee. Multiple stakeholders from various disciplines are routinely recruited to participate in system operational issues and refinement depending on expertise needed (e.g., public health, public safety) and as part of a comprehensive system planning process. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System Component (EMTS): Integration of Health Services	
Process Indicator	*Scoring*
1.2 There is a clearly defined process to communicate and notify all stakeholders regarding planning efforts or changes that may affect patient care or the delivery of patient care within your region.	0. Don't Know 1. There is no defined process for communicating important issues and planning efforts that affect patient care. 2. There is an unwritten/informal process that is used when convenient, although not regularly or consistently utilized. 3. The process for communication and notification to all stakeholders regarding planning and proposed changes in the delivery of patient care is articulated within the system plan, although it has not been fully implemented. Policies are not written. 4. The process for communication and notification to all stakeholders regarding changes in patient care is contained within and guided by the system plan. There are current policies and procedures in place to notify our stakeholders regarding possible changes in patient care issues. 5. There is a clearly defined written process for notification of all stakeholders regarding changes in patient care that impact the agency/facility. The process is stated in the system plan and incorporated into the policy and procedures for the service provider. Stakeholders are actively engaged in issues affecting patient care to resolve issues and to improve the program and its integration within other health care and public safety efforts in the community and the region. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Integration of Health Services	
Outcome Indicator	*Scoring*
1.3 Your agency/facility has clearly stated goals and objectives to assure effective care of patients within the system. These goals and objectives contain all disciplines and there is a system in place to measure progress.	0. Don't Know 1. There is no plan with goals and objectives pertaining to system integration. 2. There is a plan in place for system integration, but no method to measure progress. 3. Our agency/facility leadership periodically reviews its activities related to system integration without input from various stakeholders. 4. A multidisciplinary group/committee is in place that reacts to issues that demonstrate a lack of appropriate system integration, e.g. did one agency's/facility's protocols affect another's? 5. A multidisciplinary group/committee regularly reviews our agency's/facility's progress towards the goals and objectives pertaining to system integration at the local and regional level and assists in the continuous refinement of those efforts. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS)Component: Integration of Health Services	
RETAC Indicator	*Scoring*
1.4 Are there regional partnerships that conduct or coordinate activities to improve patient care through collaborative efforts among health related agencies, facilities and organizations within the region?	0. Don't Know 1. There are no partnerships between health services entities providing coordination of activities. 2. There is an informal or sporadic process that reacts rather than plans with regard to integration of health related issues between agencies facilities and organizations. 3. Regional multi disciplinary health care system stakeholders and staff periodically reviews its activities related to health systems integration with input from various stakeholders. 4. Regional multidisciplinary health care system stakeholders group discusses issues that demonstrate a lack of appropriate system integration. 5. Regional multidisciplinary stakeholders group regularly reviews the regional activities that measure and provide for collaboration of health related agencies facilities and organizations. **RETAC Score**

Emergency Medical and Trauma System (EMTS) Component: Research	
2. All disciplines participate in and contribute to research efforts that increase the evidence upon which the system design is based.	
Structure Indicator	*Scoring*
2.1 Your agency/facility and stakeholders group has sufficient policies to conduct and participate in system research efforts. Note: In this context, research is defined as a "systematic process of inquiry, using the scientific method, aimed at discovering, interpreting and revising facts." (as differentiated from Evaluation)	0. Don't Know 1. Our agency/facility does not conduct or participate in research efforts as no policy exists. 2. Our agency/facility does not conduct or participate in research efforts even though policies permit participation. 3. Our agency/facility has policies that allow contribution of data to research efforts. 4. Our agency/facility conduct research in collaboration with physicians and research centers to increase the evidence upon which system design, patient care and specific interventions are based. 5. Our agency/facility policies promote system research in collaboration with physicians and research centers. The data are used to analyze and improve system design, patient care and specific interventions. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS)Component: Research	
Process Indicator	*Scoring*
2.2 Your agency/facility and/or stakeholders group cooperate to conduct and participate in system research efforts. Research efforts may include collaboration with social scientists, economists, health services researchers, epidemiologists, operations researchers, and other clinical scientists.	0. Don't Know 1. Our agency/facility does not conduct research. 2. Our agency/facility conducts limited local research but does not cooperate on research projects of broader scope. 3. Our agency/facility participates in or conducts cooperative research. 4. Our agency/facility supports (e.g. through upgrades in computer technology or dedicating staff time) research as the basis for clinical and operational practices, and some providers become active participants in the research process. 5. Our agency/facility is actively involved in conducting cooperative research that involves internal and external stakeholders and research centers or qualified scientists. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Research	
Outcome Indicator	*Scoring*
2.3 Your agency/facility is integrated with external stakeholders in creating, applying and publishing research projects.	0. Don't Know 1. Our agency/facility does not contribute to research projects. 2. Our agency/facility contributes to research projects. 3. Our agency/facility contributes to, evaluate and apply appropriate research results. 4. The efforts of system professionals, delivery systems, academic centers and public policy makers are organized to support and apply research. 5. The efforts of system professionals, delivery systems, academic centers and public policy makers are organized to support, implement evidence-based practices and publish the results of research in peer reviewed journals. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Legislation & Regulation	
3. All disciplines are in compliance with all applicable federal, state, and local laws, rules, ordinances, contracts, and/or bylaws.	
Structure Indicator	*Scoring*
3.1 Your agency/facility is in full compliance with all applicable laws, rules, ordinances, contracts, etc. that govern all aspects of their operation and maintain current copies of all relevant policies and required licenses, certifications, insurance policies, etc.	0. Don't Know 1. There is no evidence that our agency is aware of applicable laws, rules, ordinances, and contracts that govern our operation or maintains any required documentation. 2. Our agency/facility can demonstrate that it is aware of applicable laws, rules, ordinances and contracts that govern our operation but we only maintains documentation of some of the specific requirements (e.g. vehicles properly licensed, inspected, and insured) 3. Our agency/facility has committed in writing to compliance with all applicable laws, rules, ordinances and contracts, but it only maintains documentation of some of the specific requirements. 4. Our agency/facility can demonstrate compliance with most applicable laws, rules, ordinances and contracts that govern our operation and maintains documentation of most (> 50%) of the specific requirements. 5 Our agency/facility demonstrates full compliance with all applicable laws, rules, ordinances and contracts that govern our operation and our agency maintains documentation of all specific requirements. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Legislation & Regulation	
Process Indicator	*Scoring*
3.2 Your agency/facility makes decisions and operates based upon internal policies, and the applicable laws, rules, ordinances and contracts that govern operations.	0. Don't Know 1. The decision-making and operations of our agency/facility are routinely not in compliance with applicable policies, laws, rules, ordinances, and contracts. 2. The decision-making and operations of our agency/facility are sometimes not in compliance with applicable policies, laws, rules, ordinances, and contracts. 3. The decision-making and operations of our agency/facility are generally in compliance with applicable policies, laws, rules, ordinances and contracts. 4. The decision-making and operations of our agency/facility are in compliance with applicable policies, laws, rules, ordinances, and contracts. If an area of non-compliance is identified, immediate corrective action is taken. 5. The decision-making and operations of our agency/facility demonstrate that it regularly surpasses the requirements and expectations of applicable policies, laws, rules, ordinances, and contracts. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Legislation & Regulation	
Outcome Indicator	*Scoring*
3.3 Your agency/facility is reviewed periodically by objective, third-party experts, reviewers, or regulators to ensure that it functions in compliance with all applicable policies, laws, rules, ordinances, and contracts that govern its operation.	0. Don't Know 1. Our agency/facility has never had an objective external review. 2. Our agency/facility has had episodic, objective external reviews of a limited number of specific operational areas (e.g. financial audit or equipment inspection). 3. Our agency/facility has had regular objective external reviews of a limited number of operational components that include compliance with some applicable policies, laws, rules, ordinances, and contracts. 4. Our agency/facility has regular objective external reviews of a wide range of operational areas to ensure compliance with applicable policies, laws, rules, ordinances, and contracts. These reviews are then tied into timely quality improvement activities to help ensure corrective action whenever required. 5. Our agency/facility has regular objective external reviews of all operational areas to ensure compliance with all applicable policies, laws, rules, ordinances, and contracts. Such reviews have led to agency/service accreditation and re-accreditation from an independent third party such as the Joint Commission, Commission on the Accreditation of Ambulance Services or the Commission on the Accreditation of Air Medical Transport Systems. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: System Finance	
4. All disciplines are financially stable organizations with approved budgets that are aligned with the Regional EMTS plan and priorities.	
Structure Indicator	*Scoring*
4.1 Cost, charge, collection and reimbursement data are projected and collected; are compared to (benchmarked) against industry data; and, are used in strategic and budget planning.	0. Don't Know 1. Cost, charge, collection and reimbursement data are not collected. 2. Cost, charge, collection and reimbursement data are collected. 3. Cost, charge, collection and reimbursement data are collected and analyzed by internal or external finance experts. 4. Cost, charge, collection and reimbursement data are collected and analyzed by internal or external finance experts e.g. CPA, but are not benchmarked against industry data. 5. Cost, charge, collection and reimbursement data are collected and analyzed by internal or external finance experts and are benchmarked against industry data. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: System Finance	
Process Indicator	*Scoring*
4.2 Budgets are approved and based on historic and projected cost, charge, collection, reimbursement and public/private support data.	0. Don't Know 1. There is no data that can be accessed for budgetary planning purposes. 2. Data is collected but reports are not routinely generated that can be used for budget planning. 3. Data is collected and reports generated, but there is no formal budget planning process. 4. Data is collected, reports generated and there is an expense budget process, but it is not linked to revenue. 5. Data is collected, reports generated, and revenue and expense budgets are produced and approved by the governing body. Progress against budget projections is monitored throughout the budget cycle. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: System Finance	
Outcome Indicator	*Scoring*
4.3 Financial resources exist that support the planning, implementation and ongoing management of the administrative and clinical care components of your agency/facility.	0. Don't Know 1. Administrative, management and clinical care planning is not conducted. 2. Administrative, management and clinical care planning is conducted, but priorities are not identified. 3. Administrative, management and clinical care planning is conducted and priorities are identified, but are not linked to the budget process. 4. Administrative, management and clinical care planning is conducted, priorities are identified and linked to the expense budget, but revenue sources are not identified or allocated. 5. Administrative, management and clinical care planning is conducted, priorities are identified and linked to the expense budget, and revenue sources are identified and allocated. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Human Resources	
5. All disciplines have sufficient capacity and ability to recruit, train, support, and maintain adequate numbers and an appropriate mix of volunteer and/or paid personnel consistent with its written plan and commensurate with identified needs within the community.	
Structure Indicator	*Scoring*
5.1 Your agency/facility has personnel recruitment and retention policies and programs to maintain adequate numbers of trained and licensed personnel (paid and/or volunteer) to meet performance standards for level of care and response times. **Formal personnel policies are reviewed regularly by your agency/facility governing authority and clearly identify expectations and responsibilities for both the agency and staff.**	0. Don't Know 1. Our agency/facility has no formal or ongoing policies or programs for the recruitment and retention of personnel. There are no personnel policies identifying the expectations and responsibilities of the agency or its staff. 2. Our agency/facility periodically organizes a program to recruit new staff on an as-needed basis. There are no personnel policies identifying the expectations and responsibilities of the agency or its staff. 3. Our agency/facility periodically organizes a program to recruit new staff on an as-needed basis. Personnel policies are informal or although written are not reviewed regularly. 4. Our agency/facility has a regular program to recruit new staff as needed and also has an ongoing program to retain current staff through formal process and providing supportive and improved incentives as appropriate. Personnel policies are written, reviewed, and updated regularly. 5. Our agency/facility maintains optimal staffing levels through a pro-active recruitment and retention program that provide benefits and incentives to help ensure staff satisfaction and stability. Personnel policies are written, regularly reviewed, clearly communicated and fairly applied. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS)Component: Human Resources	
Process Indicator	*Scoring*
5.2 Standardized feedback processes reflect that personnel understand applicable policies and procedures and demonstrate awareness of accessibility to required and advanced training, leadership opportunities, and stress management services as needed.	0. Don't Know 1. There are no regular opportunities for staff feedback. 2. Feedback is informally requested from staff on a limited and/or episodic basis with no commitment towards utilizing the results for positive change. 3. Staff is invited to provide feedback on a regular basis, but it is limited to specific issues identified by management and there is no expectation for a response from management. 4. Staff is invited to provide feedback/input on a wide variety of topics, including working conditions, personnel policies, training needs, etc. There is no expectation for a response from management 5. Staff is regularly surveyed and/or invited to provide feedback/input on a regular basis on a wide variety of topics. Management commits itself to acknowledging the feedback/input and explaining its responses and decisions as appropriate. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Human Resources	
Outcome Indicator	*Scoring*
5.3 Your agency/facility is fully staffed. All personnel understand policies and their job duties/ responsibilities. Staff indicates that they have input into operational decisions, and have reasonable access to needed equipment, supplies, training, and support.	0. Don't Know 1. Our agency/facility is constantly under-staffed and excessive turnover is an ongoing problem. 2. Our agency/facility is periodically under-staffed due to turnover. 3. Our agency/facility is usually able to maintain an adequate staff to perform the mission, but turnover and recruitment of new personnel is a challenge. 4. Our agency/facility has low turnover and is able to recruit personnel as needed to fill any gaps. Personnel indicate that they are satisfied with working conditions and personnel policies. 5. Our agency/facility maintains a pool of candidates to fill any vacancies in a timely manner. The staff indicates high satisfaction with their working conditions, input into decision-making, and access to equipment, training, and supportive services. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS)Component: Education Systems	
6. All disciplines provide appropriate, competency based education programs to assure a competent work force.	
Structure Indicator	*Scoring*
6.1 Your agency/facility has written educational requirements and a structure in place to provide education and maintenance of clinical skills consistent with state and national levels of training.	0. Don't know 1. Our agency/facility has no written policy regarding education and continuing education requirements. 2. Our agency/facility has written policies regarding minimum education requirements but has no structure in place to support those policies. 3. Our agency/facility has written policies regarding minimum education and requirements and has a structure in place to provide some education and skill maintenance for its employees. 4. Our agency/facility has a structure in place to provide the educational needs of its employees. 5. Our agency/facility bases its education and continuing education programs on local data as well as national standards and evidence. There is a process in place to provide for the on-going educational needs of the employees. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Education Systems	
Process Indicator	*Scoring*
6.2 Your agency/facility provides initial and continuing education programs with competency testing, consistent with state and national recognized levels of care.	0. Don't know 1. Our agency/facility provides no initial or continuing education to its employees. 2. Our agency/facility provides some initial and continuing education for its employees. 3. Our agency/facility provides for a program of initial and continuing education to its employees 4. Our agency/facility provides a comprehensive program of initial and continuing education for its employees consistent with state and nationally recognized levels of care. 5. The agency provides for competency-based initial and continuing education consistent with state and nationally recognized levels of care. Continued competency is assured by periodic testing. Training programs are based on current best practices and are supported by distance learning resources. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Education Systems	
Outcome Indicator	*Scoring*
6.3 Your agency/facility measures the effectiveness of its continuing education program by evaluating competency on a regular basis and bases continuing education and remedial education on structured performance improvement processes.	0. Don't know 1. There is no evaluation or measurement of the adequacy or effectiveness of initial or ongoing education programs. 2. Clinical or field procedural problems are occasionally addressed in continuing education programs. There is no regular, consistent evaluation of competency. 3. Monthly continuing education is provided and individual competency is measured at least annually. 4. Monthly continuing education is provided based on regular competency evaluations. Quality improvement information is available but does not drive continuing education methods or content. 5. There is a regular, consistent measure of competency. Continuing education programs are integrated with competency assurance and driven by service quality improvement programs with input from the service provider medical director. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Public Access	
7. The public has reliable, robust and redundant access to a system that can dispatch appropriate resources promptly and accurately to the location of the patient and provide potential lifesaving services prior to their arrival. Access should be universally available regardless of incident location, socio-economic status, age, or special need and an integral part of the Regional EMTS plan.	
Structure Indicator	*Scoring*
7.1 There is a universal access number for citizens to access the system, with dispatch of appropriate medical resources in accordance with a written plan. The dispatch system utilizes Enhanced-9-1-1 and Wireless-9-1-1 technologies and provide pre-arrival medical instructions to callers **The universal access number is part of a central communications system and plan that ensures bidirectional communication, inter-facility dialogue, and disaster communications among all system participants.**	0. Don't Know 1. There is no 911 system in place. 2. There is a 911 system in place but it does not offer emergency medical dispatch. 3. There is a 911 system in place that also offers emergency medical dispatch. 4. The agency has adopted a communications plan that was developed with multiple stakeholder groups, and endorsed by those agencies, including emergency medical dispatch. However, the integration of Enhanced-911, Wireless-911 and other emerging technologies are not included. 5. A comprehensive communications plan has been developed, and adopted in conjunction with stakeholder groups, including emergency medical dispatch. It also includes the integration of Enhanced-911, Wireless-911 and other emerging technologies. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Public Access	
Process Indicator	*Scoring*
7.2 An assessment of the needs of the general public and their ability to access the system has been conducted and the results integrated into the system plan.	0. Don't Know 1. There is no routine or planned contact with the general public. 2. Contact with the public is addressed when system failures occur. 3. Information has been informally gathered from the general public. However, no formal process is in place to address their needs. 4. The general public has been formally asked about the ability to access the system however changes have not been made to the system or to the systems plan. 5. General public needs have been identified and integrated into a plan and changes are routinely made to increase the public's ability to access the system in a timely manner. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Public Access	
Outcome Indicator	*Scoring*
7.3 Our community's special populations (e.g., language, socially disadvantaged, migrant/transient, remote, rural, and others) have access to the system.	0. Don't Know 1. There has been no consideration of the needs of special populations to access patient care within the system. 2. The system and stakeholders are beginning to consider the needs of special populations. 3. The system has identified the special populations that may require special accommodations to access the system. 4. The system has accommodations for special populations that allow them to effectively access the system. 5. The system has accommodated the needs of special populations that allow them to effectively access the system. Routine monitoring, review, and reporting of these populations are incorporated into the evaluation of system effectiveness. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Evaluation	
8. All disciplines use its management information system to facilitate on-going assessment and assurance of system performance and outcomes and provide a basis for continuously improving the Regional Emergency Medical and Trauma System.	
Structure Indicator	*Scoring*
8.1 Our agency/facility has computer based analytical tools for monitoring system performance Note: In this context, Evaluation is defined as "Utilization of system data to effect continuous quality or performance improvement.	0. Don't know 1. There is (are) no computer(s) to analyze or monitor system performance. 2. There is a basic computer program that collects the minimum state required data. 3. A computer system is in place and is used by providers to collect patient care information. Data is submitted to the state on the required submission schedule; however analytical tools are not used for system monitoring. 4. A computer system is in place and analytical tools are in use to assess system performance. 5. An upgraded and technically advanced computer system and analytical tool set is available for system monitoring and individual performance review. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Evaluation	
Process Indicator	*Scoring*
8.2 Your agency/facility collects and evaluates patient care data within the system and has a mechanism to evaluate identified trends and outliers.	0. Don't Know 1. Our agency/facility is not collecting patient care information for each episode of care. 2. Our agency/facility collects patient care information to use for internal decision making and billing. 3. Our agency/facility collects patient care data and provides the minimum data set to an approved statewide database. 4. Our agency/facility collects patient care data and provides the data to an approved statewide database as well as uses the data for its own internal monitoring. 5. Our agency/facility participates in a comprehensive data collection system that is integrated into the hospital system. Routine evaluation and assessment of system performance and administrative services is completed and shared with stakeholders. A comprehensive process improvement (PI) system is in place. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Evaluation	
Outcome Indicator	*Scoring*
8.3 Your agency/facility engages the medical community in assessing and evaluating patient care. These assessments are coordinated into quality care efforts. Findings from other quality improvement efforts are translated into improved service.	0. Don't Know 1. Our agency/facility has no relationship with the medical community to assist in evaluating system service delivery and quality of care. 2. Our agency/facility is engaged in projects but the medical community is not active in these efforts. 3. Our agency/facility is working with the medical community to develop a plan for assessing and evaluating system services and participating in research opportunities. 4. Our agency/facility participates with the medical community in evaluating system service to improve service delivery and patient care. 5. Our agency/facility has a process improvement (PI) program integrated in the medical community in system service delivery and patient care. Data is translated into routine reports for assessing performance, measuring compliance and conducting research all in an effort to improve services both clinically and administratively. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Communications Systems	
9. All disciplines are able to transmit and receive electronic voice and data signals between its own agency assets, between the agency and other community stakeholders, and between the agency and regional/state response partners.	
Structure Indicator	*Scoring*
9.1 Your agency/facility has worked with local/regional stakeholders to develop and adopt a communications plan to enhance all voice and electronic data transmissions at all levels to improve the delivery of emergency services	0. Don't Know 1. There is no system communications plan, and one is not in progress. 2. Draft elements of a formal communication plan are in place but not formalized o are under development. 3. Our agency/facility has adopted a system communications plan. However, the plan has not been endorsed by multiple stakeholder organizations. 4. Our agency/facility has adopted a communications plan that was developed with multiple stakeholder groups, and endorsed by those agencies. However, issues of integration and inter-operability have not been fully resolved. 5. A comprehensive system communications plan has been developed, and adopted in conjunction with stakeholder groups and includes full integration and interoperability between communications assets of all agency, health care, public safety and public health assets at local, sub-regional, regional and state levels. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Communications Systems	
Process Indicator	*Scoring*
9.2 Your agency/facility's purchases and configurations of communications equipment are coordinated to standardize the equipment at the local, regional and state level.	0. Don't Know 1. Needs assessments are not conducted prior to communications equipment upgrades. 2. Needs assessments are conducted and procurement needs identified but are not coordinated with other agencies, jurisdictions, or disciplines. 3. Needs assessments are conducted and procurement needs are coordinated with other agencies, jurisdictions, and disciplines. However, the results are not used to guide investment in communications infrastructure improvement. 4. Needs assessments are conducted and procurement needs are coordinated with other agencies, jurisdictions, and disciplines. 5. Comprehensive system communications needs assessments are conducted, procurement needs are coordinated and the results are used to guide investment in communications infrastructure improvement at community, sub-regional, regional and state levels. This has resulted in efficiencies and economies across the EMTS communications system. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Communications Systems	
Outcome Indicator	*Scoring*
9.3 The communications system is routinely evaluated and tested to ensure its reliability, redundancy and interoperability during routine applications.	0. Don't Know 1. The communications system is not evaluated for its reliability, or redundancy. 2. The communications system has been evaluated at a local level and issues of reliability within the agency have been addressed within the system's primary service response area. 3. The communications system has been evaluated at a local level through a multi-agency process and issues of reliability have been addressed by all agencies within the system's primary service response area. 4. The communications system has been evaluated at a regional level through a multi-agency process and issues of reliability have been addressed by all agencies within the system's primary service and mutual aid response areas. 5. The local, regional and state communications system are rigorously tested at least annually in drills, simulations and real events (routine and multi-agency) and issues involving reliability, redundancy and interoperability have been addressed. Back-up systems have also been fully exercised. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Communications Systems	
RETAC Indicator	*Scoring*
9.4 Your agency/facility provides initial and continuing education on the communications systems to provide competency with operations.	0. Don't know. 1. Our agency/facility provides no initial or continuing education to its employees on our communications systems. 2. Our agency/facility provides only initial education on our communications systems. 3. Our agency/facility provides both initial and continuing education on our communications systems. 4. Our agency/facility provides a comprehensive program of initial and continuing education on our communications systems. 5. The agency/facility provides a comprehensive program of initial and continuing education that includes a competency-based evaluation component. **RETAC Score**

Emergency Medical and Trauma System (EMTS) Component: Medical Direction	
10. Your facility/agency has a physician medical director that has received medical director training, been recognized by the state and is actively involved in Regional EMTS issues including triage, treatment, and transport, dispatch, quality improvement, education and training.	
Structure Indicator	*Scoring*
10.1 Your agency/facility medical director has clear-cut responsibility and the authority to adopt protocols, implement a quality improvement process, and to restrict the practice of providers within the system to assure medical appropriateness within the system.	0. Don't Know 1. There is no agency/facility medical director. 2. There is an agency/facility medical director with a written job description; however, the individual has no specific time allocated for these tasks. 3. There is an agency/facility medical director with a written job description and whose specific authorities and responsibilities are formally granted. 4. There is an agency/facility medical director with a written job description, but with no specific authority. The system medical director has adopted protocols, has implemented a quality improvement program, and is taking steps to improve the medical appropriateness of the system. . 5. There is an agency/facility medical director with a written job description who has authorities and responsibilities that are formally granted. There is written evidence that the facility/agency medical director has, consistently used their formal authority to adopted protocols, implemented a quality improvement program and to fully integrate the facility/agency into the health care system **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Medical Direction	
Process Indicator	*Scoring*
10.2 Your agency/facility medical director is actively involved with the development, implementation, and ongoing evaluation of protocols to assure they are congruent with other agencies/providers. These protocols include, but are not limited to, which resources to dispatch (ALS vs. BLS), air-ground coordination, triage, and early notification of the medical care facility, pre-arrival instructions, treatment, transport and other procedures necessary to ensure the optimal care of ill and injured patients.	0. Don't Know 1. There are no protocols. 2. Protocols have been adopted, but they are in conflict with the other agencies/providers resources. 3. Protocols have been adopted and are not in conflict with other agencies/providers resources, but there has been no effort to coordinate the use of protocols between the agency and the other agencies/providers within the system. 4. Protocols have been developed in close coordination with the other agencies/providers within the system and are congruent with the local resources. 5. Protocols have been developed in close coordination with other agencies/providers within the system and are congruent with the local resources. There are established procedures to involve the appropriate dispatch, public safety and other critical stakeholder personnel and their supervisors in quality improvement and there is a "feedback link" to change protocols or to update education when appropriate. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Medical Direction	
Outcome Indicator	*Scoring*
10.3 The retrospective medical oversight of your agency/facility protocols, including but not limited to, triage, communication, treatment, and transport is accomplished in a timely manner and is closely coordinated with the established quality improvement processes within the local healthcare system.	0. Don't Know 1. There is no retrospective medical oversight procedure for communication, treatment, and transport protocols. 2. There is occasional retrospective medical oversight procedure of protocols, but it is neither regular nor timely and is often as a result of a reported breach in those protocols. 3. There is timely retrospective medical oversight procedure for protocols by the quality improvement processes of the agency/facility. 4. There is timely retrospective medical oversight of protocols that is coordinated with partners within the local healthcare system. 5. There is timely retrospective medical oversight of protocols through the system that includes a multidisciplinary review coordinated with partners in the local healthcare system. There is evidence this procedure is being regularly used to monitor system performance and to make system improvements. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Clinical Care	
11. All disciplines are integrated into a resource-efficient, inclusive network that meets required standards and that provides optimal care for all patients.	
Structure Indicator	*Scoring*
11.1 Your agency/facility has a clearly defined plan that outlines roles and responsibilities of agency/facility personnel. Evidence based written patient care protocols and guidelines are maintained and updated.	0. Don't Know 1. Our agency/facility has no plan that outlines roles and responsibilities of personnel. No written patient care protocols exist. 2. Our agency/facility has a plan that outlines roles and responsibilities of personnel, but no written patient care protocols and guidelines exist. 3. Our agency/facility has a plan and patient care protocols exist but are not reviewed and updated regularly. 4. Our agency/facility plan clearly defines the roles and responsibilities of agency/facility personnel and emergency department personnel in treatment facilities for trauma patients. Written protocols and prehospital care guidelines exist and are reviewed and updated at regularly. 5. Our agency/facility plan clearly defines the roles and responsibilities of agency/facility personnel and emergency department personnel in treatment facilities for both trauma and medical patients. The plan is reviewed and updated at least annually. Evidence based written treatment protocols and care guidelines exist for personnel. Critical patient protocols are jointly practiced by prehospital and hospital personnel. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Clinical Care	
Process Indicator	*Scoring*
11.2 Clinical care is documented in a manner that enables your agency/facility to provide information to be used for system wide quality monitoring and performance improvement.	0. Don't Know 1. Clinical care is documented but documentation is not reviewed for local or regional quality monitoring or performance improvement. 2. Clinical care is documented and limited review is done at the local level. 3. Clinical care documentation is systematically reviewed at the agency/facility level but is not available electronically for quality monitoring and performance improvement. 4. Clinical care documentation is systematically reviewed at the local/regional and system level and procedures exist to utilize care data to drive performance improvement 5. Clinical care is systematically reviewed by the agency/facility Medical Director at the agency/facility level and is documented in a manner that enables agency and system-wide data from other health care and public safety agencies to be used for quality monitoring and performance improvement. Oversight of the performance improvement process is done through the agency/facility Medical Director. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Clinical Care	
Outcome Indicator	*Scoring*
11.3 Patient outcomes and quality of care are monitored. Deficiencies are recognized and corrective action is implemented.	0. Don't Know 1. There is no procedure for our agency/facility and local hospital to monitor patient outcome and prehospital quality of care. 2. Our agency/facility maintains a quality of care system including patient outcomes, but they do not regularly monitor these outcomes, or quality of care, nor do they regularly review findings together. 3. An ongoing agency/facility quality improvement program is in place to monitor and assure that quality of care is consistent with adopted protocols. 4. Our agency/facility quality improvement program monitors patient outcomes, and uses these data in an ongoing quality improvement program, and benchmarks outcomes against regional or statewide standards. 5. Our agency/facility quality improvement program monitors patient outcomes, and uses these data in an ongoing quality improvement/performance improvement program. Deficiencies in meeting the local standards are recorded, and corrective action plans are instituted. Results of comparisons with State or national norms are regularly documented, along with an explanation for significant variations from these norms, and a written plan to reduce unacceptable variations. There is a process for confidentiality of findings and recommendations of performance improvement (PI) activities. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Mass Casualty	
12. All disciplines are integrated with, and complementary to, the comprehensive mass casualty plan for natural disasters and manmade disasters, including an all-hazards approach to disaster planning and operations.	
Structure Indicator	*Scoring*
12.1 Your agency/facility has an operational plan and has established an ongoing cooperative working relationship with other stakeholders.	0. Don't Know 1. There is no agency/facility plan and no system for integration between disciplines. 2. There have been discussions between the agency/facility and the disaster system, but no inclusive formal plans have been developed. 3. Formal plans for our agency/facility and other disaster services systems integration are in development. Working relationships have been formed and cooperation is evident. 4. There are plans in place to ensure that our agency/facility and the disaster system are integrated and operational. Disaster exercises and drills have the cooperation and participation. 5. Our agency/facility system and the disaster system plans are integrated and operational. Routine working relationships are present with cooperation and sharing of information to improve system readiness for "all-hazard" multiple patient events. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Mass Casualty	
Process Indicator	*Scoring*
12.2 Our disaster training and exercises routinely include situations involving an all hazards approach, that test expanded response capabilities and surge capacity that are consistent on a regional basis.	0. Don't Know 1. Disaster training and exercise is not a routine part of the system. 2. Disaster training and exercises are conducted haphazardly by our agency/facility alone without other stakeholders involvement. 3. Disaster training and exercises are conducted regularly and include agency/facility response capabilities to all hazards. 4. Our agency/facility, Emergency Management, trauma partners, public safety and public health stakeholders have begun training and exercises in an all-hazards approach to disaster situations. 5. Exercises and training in all-hazards disaster situations are regularly conducted and include testing of agency/facility surge capacity. These exercises include agencies, trauma, public safety and public health stakeholders. Debriefing sessions occur after each drill or event. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Mass Casualty	
Outcome Indicator	*Scoring*
12.3 There are formal mechanisms to activate our response to all-hazard events in accordance with regional disaster response plans that are consistent with system resources and capabilities.	0. Don't Know 1. No feedback or after action process results from various all-hazards exercises or events. 2. Our agency/facility conducts our own after action quality improvement processes, in isolation, following each exercise or event; there is no system-wide evaluation. 3. There are sporadic, informal, non-documented "debriefings" involving multiple agencies following each exercise or event. Results of these activities do not necessarily translate to improvement processes. 4. A system-wide "debriefing" occurs following each exercise or event. Reports are written but often do not lead to improvement processes. 5. A formal system-wide analysis of after action reports and performance improvement process is in place and implemented at the conclusion of each all-hazard exercise or response. The results of the process result in improvements in the plans, targeted training and/or corrective actions. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Mass Casualty	
RETAC Indicator	*Scoring*
12.4 Your agency/facility coordinates their emergency operations plan and exercises with local/regional emergency response agencies.	0. Don't Know 1. There is no agency/facility emergency operations plan and no system for integration with local/regional emergency response agencies 2. There have been discussions between emergency response agencies but no inclusive formal emergency operations plans have been developed. 3. Integration of emergency operations plans are in development. Working relationships have been formed and cooperation is evident. 4. There are plans in place to ensure that emergency operations plans are integrated and operational. Disaster exercises and drills have cooperation and participation. 5. Emergency operations plans are integrated and operational. Routine working relationships are present with cooperation and sharing of information to improve system readiness for "all-hazard" multiple patient events. **RETAC Score**

Emergency Medical and Trauma System (EMTS) Component: Public Education	
13. The agency/facility informs and educates the local constituencies and policy makers to foster collaboration and cooperation for the enhancement of Regional Emergency Medical and Trauma Services as a whole.	
Structure Indicator	*Scoring*
13.1 Your agency/facility has a public information and education program that heightens public awareness of the preventability of injury and/or illness.	0. Don't know 1. Our agency/facility has no program/plan that provides information and education that heightens public awareness or injury and/or illness prevention and control. 2. Our agency/facility has a public awareness and injury/illness prevention program but linkages between programs and implementation of specific objectives is sporadic. 3. Our agency/facility has a public awareness and injury/illness prevention program. Linkages between programs and implementation occur regularly, but are not measured 4. Our agency/facility has a public awareness and injury/illness prevention program. Linkages between programs and implementation occur regularly. We are just beginning to gather data to measure outcomes. 5. Our agency/facility has a public awareness and injury/illness prevention program. Public information and education plan is being implemented in accordance with the timelines. Data concerning the effectiveness of the strategies are used to modify the plan and programs. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Public Education	
Process Indicator	*Scoring*
13.2 An assessment of the needs of the general public concerning Emergency Medical and Trauma Care information has been conducted.	0. Don't know 1. There is no routine or planned contact with the general public. 2. Plans are in place to provide information to the general public in response to a particular acute illness or traumatic event. 3. The general public has been formally asked about what types of information would be helpful in understanding and supporting agency/facility issues. 4. General public information resources have been developed, based on the stated needs of the general public themselves, and general public representatives are included in agency/facility informational events. 5. In addition to routine contact, the general public is involved in various oversight activities such as local and regional advisory councils. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Public Education	
Outcome Indicator	*Scoring*
13.3 Your local agency/facility seeks and receives strong public support.	0. Don't know. 1. Our local agency/facility has not been able to generate community and political support for systems improvements, e.g. increased mill levies. 2. There has been sporadic community and political support of agency/facility needs, e.g. one time budget requests for new equipment. 3. There is an ongoing, but inadequate level of funding and community/political support for our agency/facility. 4. Our agency/facility has strong support from the community and political constituency that includes an ongoing budget that is adequate to meet the routine operating costs of the system. 5. Our agency/facility has strong support from the community and political constituency that includes not only an ongoing budget, but support for improvements and expansion. This support could be manifested by special assessments, one-time budget requests in addition to ongoing budgets, fund-raising campaigns widely supported by the community, etc. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Injury/Illness Prevention	
14. All disciplines actively support community wellness and prevention activities.	
Structure Indicator	*Scoring*
14.1 A written injury/ illness prevention plan is developed and coordinated with other agencies/facilities. The injury/illness program is data driven, and targeted programs are developed based on high injury/illness risk areas. Specific goals with measurable objectives are incorporated into the injury/illness prevention plan.	0. Don't know 1. There is no written plan for a coordinated injury/illness prevention program. 2. There are multiple injury and/or illness prevention programs that may conflict or overlap with each others with no coordination within the region. 3. There is a local written plan for a coordinated regional injury/illness prevention program that is linked to the agency/facility plan and that has goals and measurable objectives. 4. The regional injury/illness prevention program is being implemented and will include established timelines. 5. A regional injury/illness prevention program is being implemented in accordance with the timelines; data concerning the effectiveness of the plan are collected and are used to validate, evaluate, and modify the plan. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Injury/Illness Prevention	
Process Indicator	*Scoring*
14.2 Injury/illness prevention programs use our agency/facility information to develop intervention strategies.	0. Don't know 1. There is no evidence to suggest that our agency/facility data are used to determine injury/illness prevention strategies. 2. There is some evidence that our agency/facility data is available for injury/illness prevention program strategies, but its use is limited and sporadic. 3. Our agency/facility data is routinely provided to the injury/illness prevention programs. The usefulness of the reports has not been measured, and prevention stakeholders are just beginning to use our agency/facility data for programmatic strategies and decision-making. 4. Our agency/facility reports on the status of illness/injury and injury mechanisms are routinely available to prevention stakeholders and are used routinely to realign prevention programs to target the greatest need. 5. A well-integrated agency/facility data system exists. Evidence is available to demonstrate how prevention stakeholders routinely use the information to identify program needs, to develop strategies on program priorities, and to set annual goals for injury/illness prevention. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Injury/Illness Prevention	
Outcome Indicator	*Scoring*
14.3 The effect or impact of injury and/or illness prevention programs is evaluated as part of a system performance improvement process.	0. Don't know 1. There is no effort to review the activities of our agency/facility in prevention efforts. 2. There is no routine evaluation of prevention activities accruing within this jurisdiction. 3. Our agency/facility does internal monitoring and evaluations of our efforts in prevention activities. 4. Our agency/facility participates with other key stakeholders in our region in evaluating prevention intervention activities. The programs are regularly assessed for effectiveness. 5. Our agency/facility along with other key stakeholders routinely uses data to implement prevention programs and to communicate prevention efforts through periodic reports. Evaluation processes are institutionalized and used to enhance future prevention activities on a regional level. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Information Systems	
15. There is an information system within the EMTS that can evaluate system performance, track provider skills, and formulate policies based on the analysis of collected data.	
Structure Indicator	*Scoring*
15.1 Your agency/facility participates in a system data collection and information data sharing network, collects pertinent data from providers on each episode of care, and uses data for system improvements.	0. Don't know 1. There is no routine collection of data or data collection system used by our agency/facility. 2. There is a minimal data set collected but it cannot be shared with other entities nor used for system improvements. 3. There is a data collection system, and some users access the information for system improvement activities. The use of the data is random and unfocused. 4. A regional data collection system is in place and used routinely by providers. The integration and use by other stakeholders is not completed. 5. There is a robust information system that is integrated with other databases. Our agencies/facilities input data into the data collection system on each episode of care. The data are used to analyze system performance and to make adjustments in education, training or policy as applicable. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Information Systems	
Process Indicator	*Scoring*
15.2 An information system is available for routine Emergency Medical and Trauma System and public health surveillance. It can be accessed by individual users as well as management for system oversight.	0. Don't know 1. There is no information system in place within our agency/facility. 2. There is an information system in place but it is not used by our agency/facility. 3. There is an information system in place but its use is sporadic; some system oversight is done using the information system that is in place. 4. The information system is in place and is integrated with other databases. It is used in some instances to review system performance but regular reports and system oversight using the information system has not been fully accomplished. 5. There is a fully integrated information system that routinely and regularly reports on individual and system performance. The system is used to make regular reports to management, and for establishing policy changes. Individual agencies/facilities can access the database and produce reports. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Information Systems	
Outcome Indicator	*Scoring*
15.3 An information system is used to assess system and provider performance, measure compliance with standards/rules and to allocate resources to areas of greatest need or acquire new resources as necessary.	0. Don't know 1. There is no information system such as the one described in use within our agency/facility. 2. Our agency/facility information system is limited in scope and the data is generally used for billing purposes. 3. Our agency/facility information system is sometimes used to review system issues or individual performance. 4. Our agency/facility information system is used by some providers to review system performance and compliance with applicable standards. The use of the data system is usually associated with an unusual occurrence rather than the routine course of system oversight, although efforts to make the system more accessible are in process. 5. There is a comprehensive information system that is used to assess system performance, measure compliance with applicable standards and allocate resources. Our agency/facility integrates the information system with other data bases to assist in routine analysis of system performance. **Agency/Facility Score** | **System Score**

Emergency Medical and Trauma System (EMTS) Component: Information Systems	
RETAC Indicator	*Scoring*
15.4 Are there technological resources available to provide information, education, training, and/or assist in systems development.	0. Don't know 1. Our information comes mainly from email notification 2. Our information system is limited in scope, with little or no information and or education/training is available. 3. Our information system is sometimes used (25 percent or less of the time) to provide information and or education and training. 4. Our information system is used 50 percent of the time to provide information and or education and training. 5. We have a comprehensive system of information technology available to all our providers that provides information and is utilized 75 percent of the time. **RETAC Score**

NCRETAC Specific Questions – Cardiac Care

NCRETAC Cardiac Care	
RETAC Indicator	*Scoring*
1. In regards to cardiovascular care and management of patients who are being treated for cardiac emergencies, does your agency/facility conduct or coordinate activities to improve patient care through collaborative efforts among health related agencies, facilities and organizations within the region? **1.B Does your agency/facility encourage group involvement in the Emergency Medical and Trauma System (EMTS) to work with other entities (e.g. health related, state, local and private agencies and institutions) to share expertise, to evaluate and make recommendations, and mutually address and solve problems related to the cardiovascular care of patients within the region?**	0. Don't Know 1. There is no process to measure progress towards goals and objectives pertaining to regional cardiovascular care integration. 2. There is an informal or sporadic process that reacts to concerns regarding lack of integration with other health care and public safety assets. 3. Agency/Facility leadership and staff periodically reviews its activities related to cardiovascular care integration without input from various stakeholders. 4. The multidisciplinary agency/facility stakeholders group reacts to issues that demonstrate a lack of appropriate cardiovascular care integration, e.g. a patient is not transported to the appropriate health care facility based on previously adopted protocols. 5. The multidisciplinary agency/facility stakeholders group regularly reviews the RETAC's system wide plan and progress towards the goals and objectives pertaining to cardiovascular care integration at the sub-regional, regional and state level and assists in the continuous refinement of those efforts.

Agency/Facility Score 1	Agency/Facility Score 1.B

NCRETAC Cardiac Care	
RETAC Indicator	*Scoring*
2. The Agency/Facility leads or coordinates efforts to determine the effectiveness and efficiency of cardiovascular care through research. **2.B A continuous and comprehensive effort is initiated and sustained to validate current Emergency Medical and Trauma System (EMTS) practices in an effort to improve cardiovascular care**	0. Don't Know 1. The **Agency/Facility** is not involved in research planning or activities. 2. The **Agency/Facility** plan makes research a future priority. 3. The **Agency/Facility** has implemented a research plan that identifies and disseminates existing research findings. 4. The **Agency/Facility** identifies, coordinates, implements and disseminates research efforts and results. 5. The **Agency/Facility** is a research implementation catalyst by delivering technical assistance that produces research methodology content training to system participants. As a result of this technical assistance, a cadre of agency investigators works in partnership with hospitals, academic centers, policy makers, public health departments, funding sources and others as appropriate, to identify, coordinate, implement and disseminate research.

Agency/Facility Score 2	Agency/Facility Score 2.B

NCRETAC Cardiac Care	
RETAC Indicator	*Scoring*
3. Does your agency/facility assess the quality and accessibility of cardiovascular education and training for all providers and documents efforts to coordinate and evaluate programs related to cardiovascular care to ensure they meet the needs of the Emergency Medical and Trauma System (EMTS).	0. Don't know 1. The **agency/facility** does not assess or evaluate education programs 2. The **agency/facility** assesses the availability of education programs 3. The **agency/facility** assesses the availability and quality of education programs. 4. The **agency/facility** provides some coordination to ensure education programs meet the needs of the EMTS system. 5. The **agency/facility** provides coordination with local, regional and state education resources to ensure education programs meet the needs of the EMTS system. **Agency/Facility Score**

NCRETAC Cardiac Care	
RETAC Indicator	*Scoring*
4 . The Agency/Facility supports the development of efficient public service access points and emergency medical dispatch through programs involving collaboration, resource sharing and technical support. **4.B The Agency/Facility supports policy change at state and national levels to ensure that goals pertaining to timely and efficient dispatch across the entire region can be achieved.**	0. Don't Know 1. The **Agency/Facility** is not involved in regional communications planning. 2. The **Agency/Facility** is a stakeholder in regional efforts to develop efficient and effective communications and dispatch models. 3. The **Agency/Facility** coordinates efforts to dispatch resources and emergency providers to assure that appropriate and timely care is provided for medical emergencies. 4. A regional communications plan, including citizen access and emergency medical dispatch is in place but is not formally monitored or evaluated. 5. A regional communications plan, including citizen access and emergency medical dispatch is in place and is evaluated and revised at least annually. **Agency/Facility Score 4** | **Agency/Facility Score 4.B**

NCRETAC Cardiac Care	
RETAC Indicator	*Scoring*
5. The Agency/Facility is a leader within its jurisdiction in the evaluation and research of cardiovascular care activities, services and system oversight.	0. Don't Know 1. The **Agency/Facility** does not serve as a leader of system activities within the area of jurisdiction. 2. The **Agency/Facility** is beginning a dialogue with the service providers and hospitals on regional evaluation and research needed to evaluate and improve services and patient care. 3. The **Agency/Facility** engages some providers and hospitals in system oversight and evaluation but it is not across the entire region. 4. The **Agency/Facility** serves as a leader in system activities and has begun a research and evaluation agenda with service providers, hospitals and the medical community. 5. The **Agency/Facility** serves as a leader in EMTS and is instrumental in working with providers, hospitals and other stakeholders in conducting research, evaluating service delivery and providing oversight to the region. **Agency/Facility Score**

NCRETAC Cardiac Care	
RETAC Indicator	*Scoring*
6. The Agency/Facility establishes continuing quality improvement (CQI) plans with goals, system monitoring protocols, and periodically assesses the quality of their cardiovascular care.	0. Don't Know 1. The **Agency/Facility** is not involved in quality assessment or protocol monitoring. 2. The **Agency/Facility** has identified CQI as a goal but has not established a CQI plan. 3. The **Agency/Facility** is in the process of establishing a protocol monitoring and CQI plan but the plan is not implemented. 4. The **Agency/Facility** has implemented a protocol monitoring and CQI plan but has not reported results. 5. The **Agency/Facility** has implemented a protocol monitoring and CQI plan and uses data from the plan to drive quality improvement throughout the region. **Agency/Facility Score**

NCRETAC Cardiac Care	
RETAC Indicator	*Scoring*
7. The Agency/Facility plan includes regional education efforts to promote and raise awareness of cardiovascular care and to promote wellness and prevention within the region.	0. Don't know 1. The **Agency/Facility** is not currently involved in public education efforts. 2. The **Agency/Facility** plan contains a public education component but there are no activities related to this component. 3. The **Agency/Facility** is involved with others in public education about cardiovascular care. 4. The **Agency/Facility** plan drives activities that promote and raise awareness of cardiovascular care within the jurisdiction. 5. The **Agency/Facility** is taking a leadership role in promoting cardiovascular care and in promoting wellness and prevention within the region. **Agency/Facility Score**

Please printout and complete the survey answer form and fax to the NCRETAC Coordinator, Jeff Schanhals at 970-774-3281 or email at ncretac@pctelcom.coop or to Ken Riddle at fax 925-946-0911 or email at kriddle@abarisgroup.com

Northeast Colorado Regional Emergency Medical and Trauma Advisory Council
Standardized (Regional) Needs Assessment Project
Problem Ranking Survey

Demographical Information: (Indicate provider type and check all that apply below the provider type selected.)

__ Pre-**Hospital Provider**
__ Volunteer __ Paid
__ BLS __ ALS
__ Fire/Rescue
__ Ambulance
__ Other

__ Hospital **Provider**
__ Trauma Center Level
__ MD
__ RN
__ Administration

__ Other **Provider**
__ Law Enforcement
__ Dispatch/Communications
__ Emergency Management
__ Public Health
__ Elected Official
__ Other

- Please rank the following ten listed issues from 1 (most challenging) to 10 (least challenging)
- Note: Use each value (1 through 10) only once

Agency Name:

____ **Agency Funding/Financial Viability**

Comments:

____ **Recruitment of New Personnel**

Comments:

____ **Retention of Personnel**

Comments:

____ **Aging Building/Equipment**

Comments:

____ **Initial/Continuing Education**

Comments:

____ **Billing/Accounts Receivable**

Comments:

____ **Medical Director Involvement**

Comments:

____ **Support form RETAC**

Comments:

____ **Administrative Support**

Comments:

____ **Cooperation with Other Agencies**

Comments:

- Please send this and the BIS tool answer sheet to: Ken Riddle – kriddle@abarisgroup.com or fax to 725-946-0911

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