GAGE COUNTY NEBRASKA

EMERGENCY MEDICAL SERVICES SYSTEM ASSESSMENT

September 12, 2007

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We give special recognition to Robyn Henderson of the Southeast Nebraska AHEC for coordinating appointments and meetings, taking minutes, supporting the steering committee and printing the final report. We give special recognition to Keith Mueller, Michelle Mason and Michael Shambaugh-Miller of the University of Nebraska Medical Center School of Public Health for their role in monitoring and documenting the assessment process and for their future research role as Gage County considers and implements change.
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Executive Summary

Gage County emergency medical services (EMS) is a system, a system made of many fragmented units operated by multiple government and non-governmental organizations. We did not find the system “broken” but neither is it in “good health”. If the results of our independent assessment and recommendations are fully utilized with the immediate attention of the elected officials, residents, and employees of Gage County, we feel that a noticeable improvement in the delivery of EMS would occur. For that reason the following pages will focus on measurable objectives that will benefit the taxpayers of Gage County during the next 12-18 months when a progress check (reassessment) would be appropriate.

Largely due to the support of Beatrice Fire & Rescue, much of Gage County benefits from Advanced Life Support capable paramedics responding even to calls outside of the city limits. This service in the past has been supplemented by Lincoln Fire & Rescue responding with paramedics to the Adams and Clatonia communities; however they have recently requested substantial subsidies to continue providing this benefit to one third of Gage County.

To prepare for an appropriate response to the changes in their EMS system, the Gage County Board of Supervisors (GCBOS) contracted with the Southeast Nebraska Area Health Education Center (AHEC) to engage SafeTech Solutions (STS) for the purpose of evaluating the EMS system and to develop a strategic plan for Gage County, Nebraska. STS provides “best practices” learned from many years of EMS system design at the local, regional, state, and national levels.

To identify the existing condition (or health) of the Gage County system an assessment process combining two methods of evaluation was used:

- A subjective process of key informant interviews
- An objective assessment tool with ranked scoring of each attribute

This report is a presentation of the results of this assessment and the next steps to be taken to improve the EMS system in Gage County. A summary of the major changes that our EMS system experts would include the following six primary recommendations:

1. The Gage County Board of Supervisors should establish an EMS Taxing District under Nebraska Law 13-303 for the purpose of:
   a. Funding placement of a paramedic in both the northern and southern parts of the county,
   b. Funding a single medical director position for the county, and
   c. Funding the training, supplies, and equipment necessary to assure that Emergency Medical Dispatch with pre-arrival instructions are provided to the public by the communications center.

2. The Gage County Board of Supervisors should integrate the fragmented EMS system components by establishing an EMS Council, containing representatives of the 15 EMS system components.

3. The Gage County Board of Supervisors should shift their existing rescue squad contracts from being service-based to performance-based subsidies.
4. The Gage County Board of Supervisors should modify their contract with Public Health Solutions to require participation on the EMS Council and integration of the EMS system components with public health functions.

5. The Gage County Board of Supervisors should expedite fixing communication issues including radio coverage gaps; radio frequency patches with Lancaster County; designation of helicopter landing zone channels; and resolution of Marshall County, KS, 911 calls being routed to the wrong communication center.

6. The Gage County Board of Supervisors should engage Beatrice Community Hospital and Healthcare Center to assure that helipad construction is a priority, offering municipal bonding authority, if necessary.

This interactive and dynamic evaluation process concluded with the provision of the final report to the Gage County Board of Supervisors, participating ambulance services, Gage County communities, Beatrice Community Hospital, Nebraska Emergency Medical Services Board, Nebraska Department of Health & Human Services (DHHS) Office of Rural Health, and the DHHS Emergency Medical Services EMS /Trauma Program.

This project was funded using federal bioterrorism and federal Medicare Rural Hospital Flexibility Grant program funds, administered by the DHHS EMS/Trauma Program.
Emergency Medical Service Systems
In 1996, the National Highway Traffic Safety Administration (NHTSA) established an agenda for EMS system development into the 21st century. The EMS Agenda for the Future identified fourteen attributes that make up the modern EMS system including (NHTSA, 1996):

- Integration of Health Services
- EMS Research
- Legislation and Regulation
- System Finance
- Human Resources
- Medical Direction
- Education Systems
- Public Education
- Prevention
- Public Access
- Communication Systems
- Clinical Care
- Information Systems
- Evaluation

Those same attributes were evaluated in Gage County, serving as the key components of modern EMS system design. STS recognizes the rural nature of Gage County requires that benchmarks and experiences specific to rural and frontier EMS systems should be considered wherever possible.

In 2004 the National Association of State EMS Officials commissioned the development of the National Rural and Frontier EMS Agenda for the Future. Dennis Berens of the Nebraska DHHS Office of Rural Health chaired the project steering committee, Dean Cole, Nebraska DHHS, Emergency Medical Services/Trauma Program served as a steering committee member, and STS partner Gary Wingrove served on the editorial board.

Due to the rural specificity, national consensus, and State of Nebraska support for its development, STS has incorporated guidance from the 2004 Rural and Frontier EMS Agenda for the Future\(^1\) in this report.

The following assessment and recommendations are organized around the 14 EMS system attributes outlined in the Rural & Frontier EMS Agenda for the Future\(^2\) and includes an additional component for mass casualty readiness.

\(^1\) http://www.nrharural.org/groups/sub/EMS.html
\(^2\) http://ruralhealth.hrsa.gov/pub/REMSTTAC/RuralEMSMangers.asp
The written objective EMS self-assessment process used by STS was modeled after a statewide trauma system assessment developed by the Health Resources and Services Administration of the United States Department of Health and Human Services. This process, known as Trauma-BIS, evaluates a number of benchmarks through indicators of the structure, process and evaluation. Each indicator is rated using ranked scoring. This is a valuable process that leads to predictable and measurable improvements across such complex systems.

The Gage County EMS self-assessment was based on a state of Colorado project, known as EMS-BIS. EMS-BIS was developed and implemented for a multi-county region of Colorado in 2006. STS adapted the Colorado multi-county process for use as a single county EMS assessment for Gage County. The following information is adapted from the HRSA website and describes the Benchmarks, Indicators, and Scoring (BIS) tool.

**Benchmarks, Indicators, and Scoring**

**Benchmarks** are global overarching goals, expectations, or outcomes. In the context of the EMS system, a benchmark identifies a broad system attribute.

**Indicators** are those tasks or outputs that characterize the benchmark. Indicators identify actions or capacities within the benchmark. Indicators are the measurable components of a benchmark.

**Scoring** breaks down the indicator into completion steps. Scoring provides an assessment of the current status and marks progress over time to reach a certain milestone.

Within each core attribute (e.g. System Integration, Human Resources, and System Finance) are a variety of potential benchmarks. These potential benchmarks are based, to the extent possible, on current literature on EMS system development and public health systems. For each benchmark, a number of indicators further define the benchmark and scoring for each indicator to assist in identifying progress, efforts, or compliance, or any combination of these. Each indicator contains a scoring-mechanism ordering of statements to assess progress to date. The following criteria are used to assess progress in complying with each indicator:

<table>
<thead>
<tr>
<th>Score</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Not Known</td>
</tr>
<tr>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>Minimal</td>
</tr>
<tr>
<td>3</td>
<td>Limited</td>
</tr>
<tr>
<td>4</td>
<td>Substantial</td>
</tr>
<tr>
<td>5</td>
<td>Full</td>
</tr>
</tbody>
</table>

Each participant reviews the criteria listed for each indicator and select the one that best describes the jurisdiction’s current capability. A large and diverse stakeholder group is important, not just for local buy-in but also the collective objectiveness of the community. The following table provides an example of how the above criteria are used to assess EMS system progress for a specific indicator.
Example of Progress Scoring

Indicator 1.1: The EMS agency has convened, or participated in a multidisciplinary planning process that describes the role of the agency within the health care and public safety systems serving the community and the region.

<table>
<thead>
<tr>
<th>Score</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>The scorer does not know enough about the indicator to evaluate it effectively.</td>
</tr>
<tr>
<td>1</td>
<td>There is no evidence of partnerships, alliances, or working together to integrate the system.</td>
</tr>
<tr>
<td>2</td>
<td>There have been limited attempts to organize groups, but to date no ongoing system committees meet regularly to design or implement the local system.</td>
</tr>
<tr>
<td>3</td>
<td>The agency participates in a committee that meets regularly to develop and implement a comprehensive system plan.</td>
</tr>
<tr>
<td>4</td>
<td>The agency demonstrates an ability to bring together or participates in a multidisciplinary group that is developing, implementing, and maintaining a comprehensive system plan with measurable goals and objectives pertaining to system integration.</td>
</tr>
<tr>
<td>5</td>
<td>The agency has brought together or participated in a stakeholder group to assist with and make recommendations on the development and implementation of the system, through a multidisciplinary advisory committee. Multiple stakeholders for 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.</td>
</tr>
</tbody>
</table>

Benchmark 1.0

For its patients and the community as a whole, the Emergency Medical Services (EMS) agency provides care and services that are integrated with other health care providers, community health and public safety resources.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator 1.1</td>
<td>2.88</td>
</tr>
<tr>
<td>Indicator 1.2</td>
<td>2.7</td>
</tr>
<tr>
<td>Indicator 1.3</td>
<td>2.39</td>
</tr>
<tr>
<td>Median Score Expectation 1.0</td>
<td>2.66</td>
</tr>
</tbody>
</table>

In this benchmark, the median score of "2.66" would indicate that, overall, there is evidence of some, but limited progress in meeting the expectation. Although this scoring mechanism provides a quantitative descriptor of each indicator and, ultimately, of the entire EMS system, the scoring process has a number of methodological limitations:

- The benchmarks focus primarily on process measures, not on outcomes. It is assumed that meeting these process measurements will result in improved outcomes. Each EMS system, however, will determine its specific outcome goals.
As better-defined and measured national benchmarks are established, it will be possible to assess progress with national outcomes and with nationally established performance guidelines.

- Despite the apparent objectivity of the evaluation methodology, it still relies on the qualitative judgments by those completing the assessment.
- Despite efforts to make the document fully objective, it is difficult to provide complete operational definitions for some terms. One assessment to another will vary considerably, depending on the experience and expertise of the assessor.
- The data presented are rank ordered. Therefore, it is not possible to do parametric statistical analysis such as a mean. Individuals are cautioned not to perform statistical analyses that exceed the underlying data assumptions. Likewise, persons are cautioned about drawing conclusions from the median score. Because the points are not discrete points on an ordered scale, it is not possible to say, for instance, that a score of 4 is twice as good as a score of 2. The median simply denotes the relative progress in achieving the benchmark.
- Although focus groups have reviewed the rank-ordered expectations, some may disagree with both the order and the content. This section and its scoring are not absolute.
- The benchmarks and indicators are not exhaustive. Additional indicators will be added and some existing indicators will be deleted from these tools over time.
- The self-assessment is but one tool to use in assessing the progress a system has made in meeting the above-referenced benchmarks and indicators. Any system review should include outcome measures as a full measure of system performance.

The benchmarks, indicators, and scoring (BIS) are in early form and are clearly intended to be a living tool that will evolve and be refined as the BIS are used across a variety of settings. Eventually, weighting criteria will be added so that the more important aspects of a comprehensive and inclusive EMS system are more clearly identified.

The intent of the tool is to allow an individual EMS system to identify its own strengths and weaknesses, prioritize activities, and measure progress against itself over time. It is not intended to compare one system to another.
Gage County Emergency Medical Service Goals

The Gage County EMS-BIS scored the Gage County EMS system as a whole and each of the four participating rescue squads individually against benchmarks and indicators of performance. For strategic planning purposes, these next levels of scoring of each indicator should be considered as goals to accomplish:

- Participate in a stakeholder group to assist with and make recommendations on the development and implementation of the system, through a multidisciplinary advisory committee.
- Develop a clearly defined written process for making decisions impacting the agency.
- Regularly review the agencies 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.
- Develop policies to promote system research in collaboration with physicians and research centers.
- Remain actively involved in conducting cooperative research that involves internal and external stakeholders and research centers or qualified scientists.
- Organize efforts of system professionals, delivery systems, academic centers and public policy makers to support, implement evidence-based practices and publish the results of research in peer reviewed journals.
- Demonstrates understanding of all applicable laws, rules, ordinances and contracts that govern their operation and has current copies of all such requirements.
- Demonstrate that it regularly exceeds the requirements and expectations of applicable laws, rules, ordinances, and contracts.
- Regular objective reviews of all operational areas to ensure compliance with all applicable policies, laws, rules, ordinances, and contracts.
- Cost, charge, collection and reimbursement data are collected and analyzed by internal or external finance experts and are benchmarked against industry data.
- Data is collected, reports generated, and revenue and expense budgets are produced and approved by the governing body.
- Administrative, management and clinical care planning is conducted, priorities are identified and linked to the expense budget, and revenue sources are identified and allocated.
- Maintains optimal staffing levels through a proactive recruitment and retention program that provide benefits and incentives to help ensure staff satisfaction and stability.
- Regularly survey staff and/or invite to provide feedback/input on a wide variety of topics, including working conditions, personnel policies, training needs, etc.
- Maintain a pool of candidates to fill any vacancies in a timely manner.
- Maintain a medical director with a written job description and whose specific legal authorities and responsibilities are formally granted.
- Develop protocols in close coordination with the local hospital medical director and are congruent with the local hospital resources.
- Maintain timely retrospective medical oversight of protocols through the system that includes a multidisciplinary review coordinated with partners in the local healthcare system.
- Establish education and continuing education programs on local data as well as national standards and evidence.
- Provide competency-based initial and continuing education consistent with state and nationally recognized levels of care.
- Regularly utilize consistent measures of competency.
- Implement an awareness and injury/illness prevention program public information and education plan in accordance with the timelines.
- Involve the general public in various oversight activities such as local and regional advisory councils.
- Develop strong support from the community and political constituency that includes not only an ongoing budget, but support for improvements and expansion.
- Develop an integrated agency data system.
- Routinely use the data both to implement prevention programs and to communicate prevention efforts through periodic reports.
- Develop a comprehensive system communications plan and adopt it in conjunction with stakeholder groups and includes the integration of Enhanced-9-1-1, Wireless-9-1-1 and other emerging technologies to include an emergency medical dispatch program
- Identify general public needs and integrate them into a plan where changes are routinely made to increase the public’s ability to access the system in a timely manner.
- Accommodate the needs of unique populations that allow them to effectively access the system.
- Conduct comprehensive system communications needs assessments guiding investment in communications infrastructure improvement at community, sub-regional, regional and state levels.
- Rigorously test local, sub-regional, regional and state communications systems at least annually in drills, simulations and real events (routine and multi-agency) and issues involving reliability, robustness, redundancy and interoperability have been addressed.
- Define the roles and responsibilities of agency personnel and emergency department personnel in treatment facilities for both trauma and medical patients.
- Review of clinical care by the agency Medical Director at the local 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.
Monitor patient outcomes by the quality improvement program using data in an ongoing quality improvement/performance improvement program.

- Maintain a robust information system that is integrated with other data bases.
- Maintain a fully integrated information system that routinely and regularly reports on individual and system performance.
- Maintain a comprehensive information system that is used to assess system performance, measure compliance with applicable standards and allocate resources.
- Maintain an upgraded and technically advanced computer system and analytical tool set for system monitoring and individual performance review.
- Participate in a comprehensive data collection system that is integrated into the hospital system.
- Active medical community and hospital involvement in system service delivery and patient care.
- Integrate and operationalize EMS system and the disaster system plans.
- Exercise and train for all-hazards disaster situations regularly, include testing of facility/clinic surge capacity.
- Implement a formal system-wide analysis and performance improvement process at the conclusion of each all-hazard exercise or response.

**Gage County Demographics & Economic Development**

According to the US Census Bureau 2006 estimate, Gage County has 23,365 residents across 855 square miles for 26.9 persons per square mile. This represents a 1.6% increase over the last six years, less than Nebraska’s 3.3% overall increase or the National 6.4% increase.

Gage County is home to a greater proportion of residents over age 65 at 18.7% while the median age is 39.9 with a nearly equal distribution of gender.

The home ownership rate is significantly greater than and the number of multi-unit structures is less than the rest of the state, at 71.2% and 14.2% respectively.

Gage County has experienced a 5.0% reduction in private non-farm employment while Nebraska has gained 3.1%.

Although median family incomes are significantly lower than the National median, the number of persons in poverty are also fewer.

Major economic development in Gage County includes two new plants, an ethanol plant near Adams and a biodiesel plant near Beatrice.
The Gage County EMS System

Note: Maps of the EMS, Fire, QRT, extrication districts can be found in Attachments A through E.

- **Adams Rescue Squad:**
  
  In 2006, the Adams Rescue Squad (ARS) had about 100 medical calls. They operate with two first responders and 16 EMTs (three of which are nurses)
and utilize Lincoln Fire and Rescue to provide Advanced Life Support tiering services (See Attachment F) for its service area.

Retention of volunteers is not an issue for ARS, but recruiting new personnel is difficult – daytime staffing is a particular problem. ARS usually staffs the rescue squad with three personnel, but occasionally uses two, typically with a three to five minute response time. They are located equidistant between Lincoln and Beatrice, but most patients choose to be transported to Lincoln hospitals.

The city of Cortland pays for part of the replacement ambulances for ARS. They have formal mutual aid (See Attachments G& H) with Hallam and Clatonia, and informal mutual aid with other nearby rescue squads.

ARS is not accredited by either the Commission on the Accreditation of Ambulance Services (CAAS) or the Commission on the Accreditation of Medical Transport Systems (CAMTS).

- **Beatrice Fire & Rescue:**
  Beatrice Fire and Rescue (BFR) is an all paid combined EMS and Fire Department with 24 full-time employees including a secretary and eight part-time employees. Ten are paramedics, two are EMT-Intermediates and fourteen are EMT-Basics. BFR provides response coverage to 389 square miles of Gage County (See Attachment I) including the city of Beatrice. BFR is staffed with seven employees each day with two assigned to provide first-out ambulance service. BFR can staff up to three ambulances if there are no concurrent fire calls. BFR provides Advanced Life Support services to Southern Gage County on a regular basis through a priority dispatch system and Northern Gage County when requested.

  Beatrice Rescue Squad (BRS)\(^3\) normally staffs two paramedics on each ambulance. To ensure a paramedic is available in the city when providing out-of-town coverage or when crew scheduling demands it, an EMT/paramedic team may be used. If available, additional staff is dispatched to help manage complicated cardiac and respiratory calls.

  Patient care reports are completed on paper forms and then entered into the state’s eNARSIS system. One person from each shift reviews all patient care reports from the shift for accuracy and use of proper guidelines. Billing information is provided by the hospitals.

  In 2006, BRS had 1,928 ambulance calls with 576 out-of-town interfacility transfers. There are 50-60 transfers per month from Beatrice Community Hospital and Healthcare Center (BCHHC) to Lincoln hospitals.

  BRS is not accredited by either CAAS or CAMTS.

- **Clatonia Rescue Squad:**
  Clatonia Rescue Squad (CRS) is governed by the city of Clatonia and responds to about 65 ambulance calls per year. CRS has an agreement with

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\(^3\) While officially known as Beatrice Fire & Rescue, we use Beatrice Rescue Squad to specify comments regarding the rescue squad and BFR when discussing the entire department.
Cortland where they supply ambulance service to Cortland and in return Cortland helps fund the purchase of CRS ambulances. CRS participates in the BCHHC skills fair program. Cortland Fire does extrication in the area of Cortland. CRS utilizes both BFR and Lincoln Fire and Rescue for Advanced Life Support tiering services.

CRS charges for ambulance service and uses a private billing company, EMS Billing. CRS has an average 3 minute response time of their staff to the ambulance garage. CRS has some concerns about the overall status of the communication system and they describe multiple interoperability issues.

CRS is not accredited by either CAAS or CAMTS.

- **Wymore Fire & Rescue**:
  WRS is also combined with the Wymore Fire Department. The Wymore Fire & Rescue department has some unique internal issues that STS addressed directly with the Mayor of Wymore and are not found in this report.

  The Wymore Rescue Squad (WRS) and BRS respond to 180-200 ambulance requests in the WRS service area per year. There are 35 people on the fire roster, 15 of whom are EMTs. It is unclear how many EMTs actually respond to calls. WRS cross trains with EMTs from Barneston. The Wymore police department has police officers on staff and two police cruisers that are equipped with an AED and first aid kit. The officers are trained as first responders.

  WRS is not accredited by either CAAS or CAMTS.

- **Beatrice Community Hospital and Healthcare Center**:
  BCHHC was established in 1911, averages 440 employees, and is accredited by the Joint Commission on the Accreditation of Healthcare Organizations. Four full-time emergency room physicians see approximately 22 emergency and five outpatient visits per day. BRS paramedics provide services at the hospital when needed, primarily assisting with managing patient airways during surgery, and assisting with cardiac arrests in the emergency room. A formal policy between the hospital and the BRS does not exist.

- **Rural Health Clinics**:
  There are 121 rural health clinics (RHC) in Nebraska. Three are located in Gage County, one in Adams and two in Wymore.

  The BCHHC operates one RHC in Wymore staffed full time by two Physician Assistants supported by two Beatrice physicians who spend one half day each in Wymore.

  The second Wymore RHC, Community Physicians Clinic, operated by Community Memorial Healthcare Hospital of Marysville, Kansas is staffed on

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4 While technically known as Wymore Fire & Rescue, we choose to use the name Wymore Rescue Squad throughout the report when discussing the rescue squad services and Wymore Fire & Rescue when discussing the entire department.
a rotating basis by two physicians, along with a nurse practitioner and a registered nurse.

The Adams Primary Care RHC operated by the Saint Elizabeth Medical Center of Lincoln is staffed by two rotating physicians and a nurse Practitioner. In addition to Adams, they serve patients from Clatonia and Cortland.

- **Public Health:**
  Public Health Solutions based in Crete, Nebraska serves as the public health contractor across a five county area but does not maintain a Gage County office.

  Blue Valley Mental Health is a non-profit mental health provider that receives state funding. They have on call counselors on staff who are able to avert 80% of the reported mental health crises from becoming hospital inpatients.

**The Lancaster County EMS System Interfaces**

- **Lincoln Fire & Rescue:**
  Lincoln Fire & Rescue completes 16,900 ambulance runs per year. They serve the city of Lincoln as well as 9 fire districts in Lancaster County. They provide paramedic intercept service to ARS and CRS. Lincoln Fire & Rescue has five staffed ALS ambulances and two reserve units. They staff ambulances with one paramedic and one EMT, and have paramedics assigned to fire engines. Lincoln Fire & Rescue responds with 2 paramedics to intercepts in Northern Gage County.

  Medical direction for Lincoln Fire & Rescue is provided by EMS, Inc. which was created by city ordinance and is funded by the city and the hospitals. EMS, Inc. is an independent agency with a part-time physician and full-time director. EMS Inc's board is appointed by the Mayor and approved by the city council.

- **StarCare:**
  Initially during the assessment period Star Care had one helicopter based at Bryan/LGH Medical Center East in Lincoln. Prior to completing the assessment the helicopter was relocated to Bryan/LGH Medical Center West. Fifteen percent of their work is scene related including about two Gage County requests per month.

- **EMS, Inc.**
  EMS, Inc. provides protocols, quality assurance and response time verification in the city of Lincoln and oversees ten ambulance services in Lancaster County. The medical director Dr. Rounsborg also works as a physician for St. Elizabeth's.
The Gage County EMS-BIS
For the purposes of this report, the *Agency Average Scoring* identifies the average agency self rating from individual participating agencies. The *Gage County Scoring* identifies the consensus rating of the county by all participants during a large group facilitated discussion session.

### EMS System Component: Integration of Health Services

**Benchmark 1.0**
For its patients and the community as a whole, the Emergency Medical Services (EMS) agency provides care and services that are integrated with other health care providers, community health and public safety resources.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>SCORING</th>
<th>Gage County</th>
<th>Agency Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>The EMS agency has convened, or participated in a multidisciplinary planning process that describes the role of the agency within the health care and public safety systems serving the community and the region.</td>
<td>There have been limited attempts to organize groups, but to date no ongoing system committees meet regularly to design or implement the local system.</td>
<td>There have been limited attempts to organize groups, but to date no ongoing system committees meet regularly to design or implement the local system.</td>
</tr>
<tr>
<td>1.2</td>
<td>A clearly defined and easily understood structure is in place for the EMS decision-making process. The EMS operational decisions are based on the system plan and reflect ongoing engagement with multidisciplinary stakeholders and partners to ensure integration of the EMS within the community and the region.</td>
<td>There is no defined process (written policy and procedure) for decision making.</td>
<td>There is an unwritten/informal process that is used when convenient, although not regularly or consistently.</td>
</tr>
<tr>
<td>1.3</td>
<td>There is a process in place to measure the EMS System’s progress in meeting goals and objectives in the system plan and that support integration of the agency in the health care and public safety assets in the community (Horizontal integration).</td>
<td>There is no process to measure progress towards goals and objectives pertaining to system integration.</td>
<td>There is an informal or sporadic process that reacts to concerns regarding lack of integration with other health care and public safety resources, e.g. the fire department not called to a hazmat incident.</td>
</tr>
</tbody>
</table>

**STS Observations:**
The Wymore, Clatonia, Adams and Beatrice rescue squads are somewhat integrated into the Gage County healthcare system. Occasionally the rescue squad staff will assist with patient care in the BCHHC emergency room after dropping off a patient but do not provide other ancillary health functions. Each rescue squad except for Clatonia has a physician.
medical director currently practicing in the county and many fire department first responders also engage local medical direction.

BCHHC has conducted an EMS “skills fair” to assess the ongoing competency of rescue squad personnel. A number of experts from throughout the region assist local staff in assessing the major skills used by EMS personnel.

The rescue squads have written mutual aid agreements with adjoining fire and rescue squads for incidents involving fires but not for non-fire EMS incidents. Most frequently they report mutual aid requests are triggered and become necessary on holidays, during the middle of the night and during severe weather.

The County has no written EMS plan but the rescue squads do ad-hoc planning when there is a need to react to an internal or external force. There are no other coordinated events that bring the system stakeholders together on a regular basis. As a result there are no coordinated activities or countywide approaches to identify or address public health needs.

There is a perception that many of the interfacility transfers from BCHHC occur at or just before the BFR shift change. This could be due to overlapping shift schedules, as well as the schedules for the incoming specialists at the Lincoln hospitals. BCHHC has hired three hospitalists that will begin service in October and plan to hire a fourth to begin working January 1, 2008. When the hospitalists begin work, the number of transfers from the BCHHC is expected to decline by 80%. This issue is likely to resolve itself at that time. The BRS should monitor the transfers in the month of October, and engage the hospital staff in November if there isn’t significant change. Both entities are now aware of the problem and should be able to bring it to mutual resolution if the addition of physicians doesn’t mitigate it naturally.

STS Recommendations:
A. The GCBOS should establish an EMS advisory council that includes participants from a discipline or entity representing each of the 15 EMS system components.
B. The EMS council should create a written EMS plan that incorporates each of the 15 components identified in this report.
C. The EMS council should include in the EMS plan a mechanism to increase the level of service in Gage County to the paramedic level countywide by adding quick response vehicles to enhance the basic life support services.
D. The EMS council should include in the EMS plan a mechanism to improve system integration by positioning paramedics at the rural health clinics in Adams and Wymore during clinic operating hours and to partner with the local services to enhance patient care during non-clinic hours.
E. The EMS council should include in the EMS plan an education component that incorporates a feedback loop from the clinics, the hospital, and the medical directors to provide input to personnel training programs.
F. The EMS council should include in the EMS plan a plan to implement the Community Health Specialist (CHS) role.
G. BCHHC should conduct the EMS skills fair at least annually.
STS Discussion:

A. The EMS system plan would emphasize integration of system components and include measurable goals and objectives. These too must be actionable and attainable with a funding mechanism identified to allow the objectives to be met. An EMS plan should address each component and become the blueprint to ensure community appropriate services are delivered and logical improvements are made. For public accountability, the EMS Council should report to the GCBOS on general EMS matters at least twice annually with more frequent progress updates as needed.

B. Rural health clinics operated by Critical Access Hospitals are eligible for cost-based payments through the Medicare program. The expense of integrating paramedics into clinic operations can be partly recovered through clinic financing mechanisms. Rural health clinic reimbursements involve cost reporting which is beyond the scope of this report. The hospital accountants should be consulted to provide estimates of cost recovery through those programs. Funding of the paramedics during non-clinic hours is discussed separately in the finance section of this report.

C. While paramedics could be hired separately by WRS and ARS, STS recommends the GCBOS consider supporting the BRS to provide this function so that BRS can leverage their existing resources for the mutual benefit of the county and city. BRS has paramedics on staff with a supervisory and management structure supporting full-time paramedics, protocols and other fundamental components already in place. This allows various scheduling alternatives which in turn enhance the frequency and use of skills for rural areas which may be necessary to entice seasoned paramedics to become Community Health Specialists in Gage County.

D. The Nebraska Department of Health and Human Services, in collaboration with the North Central EMS Institute, University of Nebraska Medical Center, Creighton University, Minnesota Department of Health, and Dalhousie University in Halifax, Nova Scotia, have formed a collaborative called the Community Healthcare and Emergency Cooperative (CHEC). The CHEC is developing a curriculum for a Community Health Specialist (CHS). The CHS is a new type of healthcare provider that will be educated in emergency services, public health, disease management and mental health. The training core will be the Community Health Worker certificate program already in use in Minnesota. This unique effort supports work being done by the International Roundtable on Community Paramedicine (IRCP), another International collaborative. IRCP’s mission is to create an internationally standardized second generation of paramedics that are also integrated with the larger healthcare system. The CHS curriculum will not require an EMS background but current EMTs and paramedics are poised to be ideal candidates for the training. These new workers will be skilled referral specialists with diverse clinical expertise and the ability to do follow up care with asthmatic and congestive heart failure patients. The curriculum being developed by CHEC is to be simultaneously implemented in Nebraska, Minnesota and Nova Scotia and will be made available to any accredited college or university. Paramedics placed at the rural health clinics should be selected based on their ability to complete this training, better serving the clinics and communities while also decreasing the need for ambulance transport.
EMS System Component: Research

Benchmark 2.0

The EMS system agencies participate in and contribute to research efforts that increase the evidence upon which the system design is based.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>SCORING</th>
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<tbody>
<tr>
<td>2.1</td>
<td>EMS participants (agencies, facilities, other stakeholders) have sufficient policies to conduct and participate in system research efforts.</td>
</tr>
<tr>
<td></td>
<td>The system participants do not conduct or participate in research efforts as no policy exists.</td>
</tr>
<tr>
<td></td>
<td>The system participants do not conduct or participate in research efforts even though policies permit participation.</td>
</tr>
<tr>
<td>2.2</td>
<td>EMS participants (agencies, facilities, other stakeholders) 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.</td>
</tr>
<tr>
<td></td>
<td>System participants do not conduct research.</td>
</tr>
<tr>
<td></td>
<td>System participants do not conduct research.</td>
</tr>
<tr>
<td>2.3</td>
<td>EMS participants are integrated with external stakeholders in applying and publishing system design, patient care and specific intervention research.</td>
</tr>
<tr>
<td></td>
<td>System participants do not contribute to research projects.</td>
</tr>
<tr>
<td></td>
<td>System participants do not contribute to research projects.</td>
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</tbody>
</table>

STS Observations:
The term research means different things to different people. The word research derives from the French recherché, from recherché, to search closely where "cherchér" means "to search"; its literal meaning is 'to investigate thoroughly'. Research is an active, diligent and systematic process of inquiry in order to discover, interpret or revise facts, events, behaviors, or theories, or to make practical applications with the help of such facts, laws or theories.

As an important field within the healthcare industry, EMS systems benefit greatly from research. In the context of this report, research is intended to be those projects upon which evidence is gathered to improve the EMS system. Such projects can include simple activities such as monitoring response times to more complex projects involving human trials. With the development of e-NARSIS, rescue squads have an easy method to gather pertinent data about the service they provide. Gage County’s proximity to Lincoln is a benefit because of the opportunities to participate in more complex system research and to be guided by established and effective researchers.
**STS Recommendations:**

1) The GCBOS should require that all ambulance services utilize electronic patient data collection.

2) The GCBOS should require baseline research reports as discussed in A below as a condition of contracting with rescue squads.

3) The GCBOS should require research reports based on nationally developed outcome measures.

4) The GCBOS should require subsidized rescue squads to file run reports electronically into the eNARSIS system.

**STS Discussions:**

A. Reports can be easily obtained from e-NARSIS records including rescue squads:

   a. Number of responses,
   b. Number of transports,
   c. Average response times for the preceding period,
   d. Number of calls by major type (medical, cardiac, stroke and trauma).

   Other manual reports should be compiled that demonstrate a historical pattern of the number of personnel on active duty, what the county subsidy has been used for, and how training requirements are being managed.

B. The North Central EMS Institute (NCEMSI) has developed EMS Outcome Measures in collaboration with several national organizations including the National Association of State EMS Officials and the National Organization of State Offices of Rural Health. These outcome measures are designed to be compliant with the National EMS Information System, the digital data standard used by e-NARSIS. The state EMS office could engage the Nebraska e-NARSIS contractor to make data reporting easy to use. There are seven outcome measures with additional points being considered for future implementation:

   a. Time from symptom onset to 911 call received,
   b. Time from 911 call received to arrival of EMS at patient’s side,
   c. Appropriate oxygen administration,
   d. Timeliness of oxygen administration,
   e. Accuracy of patient care reports, and
   f. Cardiac patients receiving EKGs, or
   g. Time to defibrillation

C. The federal Medicare program is changing the methodology used to for payment of services it purchases. Hospitals, clinics, home health and other services are being transitioned to “Pay for Performance” or “Value Based Purchasing”. These payment practices reward healthcare providers for reporting quality measures to the federal government. Hospitals are not required to report quality measures, but failure to do
so results in a reduced cost of living adjustment. Medicare is experimenting with physician payment “incentives” for reporting. Industry experts predict that quality measure reporting will soon become mandatory for government programs and private insurers are following suit. EMS industry participants are hopeful the EMS outcome measures developed by the North Central EMS Institute will be integrated with Medicare’s future reimbursement system.

Preparing for this inevitable change before it becomes mandatory, the GCBOS will build a stronger EMS system and will be better prepared to receive maximum reimbursement under a pay for performance plan.

The NCEMSI also provides a benchmarking service for EMS agencies to compare EMS operations with their peers. This service compares business processes, such as cost per mile of fleet operation, not clinical processes, and greatly empowers decision makers with more information for everyday EMS management. The rescue squads should be encouraged to participate in the benchmarking project.
### EMS System Component: Legislation and Regulation

**Benchmark 3.0**
The EMS agencies are in compliance with all applicable federal, state, and local laws, rules, ordinances, contracts, and/or bylaws.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>SCORING</th>
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<tbody>
<tr>
<td>3.1</td>
<td>The EMS agencies are in full compliance with all applicable laws, rules, ordinances, contracts, etc. that govern all aspects of their operation and contains current copies of all relevant policies and required licenses, certifications, insurances, etc. The agency has an approved system plan that commits itself to complying with all applicable laws, rules, ordinances and contracts, but it only maintains documentation of some of the specific requirements. The agency has an approved system plan that commits itself to complying with all applicable laws, rules, ordinances and contracts, but it only maintains documentation of some of the specific requirements.</td>
</tr>
<tr>
<td>3.2</td>
<td>The EMS agency makes decisions and operates based upon its EMS plan, internal policies, and the applicable laws, rules, ordinances and contracts that govern their operations. The decision-making and functioning of the agency are in compliance with applicable laws, rules, ordinances, and contracts. If an area of non-compliance is identified, immediate corrective action is taken. The decision-making and functioning of the agency are generally in compliance with applicable laws, rules, ordinances and contracts.</td>
</tr>
<tr>
<td>3.3</td>
<td>The EMS Agency is reviewed periodically by objective, third-party experts, reviewers, or regulators to ensure that it functions in compliance with and all applicable laws, rules, ordinances, and contracts that govern its operation. The agency has had regular reviews of a limited number of operational components that include compliance with some applicable policies, laws, rules, ordinances, and contracts. The agency has had episodic, objective reviews of a limited number of specific operational components (e.g. financial audit or equipment inspection).</td>
</tr>
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</table>

**STS Observations:**
The Nebraska State Legislature has enacted a number of statutes designed to protect the health and safety of persons in Nebraska. Monitoring the performance of Nebraska ambulance services and personnel is the responsibility of the state’s Department of Health and Human Services, Division of Public Health, Licensing and Regulatory Affairs (DHHS). DHHS also issues licenses to ambulance services and issues licenses to first responders, emergency medical technicians (EMT), EMT-Intermediates (EMT-I) and EMT-Paramedics (EMT-P) to provide specific scopes of practice following state statute. Another service provided by the DHHS EMS/Trauma Program is a data collection system called the
electronic Nebraska Ambulance and Rescue Service Information System (e-NARSIS). This data collection system is used by EMS agencies statewide.

Rescue squads are inspected randomly and as often as annually by DHHS for compliance with minimum equipment standards, proudly Gage County has no recorded deficiencies. The licenses of personnel are renewed by DHHS every three years upon each provider completing specific continuing education requirements, and again there are no known deficiencies. Many states mandate through legislation minimum standards for firefighters but Nebraska does not. As a result, many firefighters in Gage County have not completed entry level Fire Fighter I training.

**STS Recommendations:**

1) The Gage County EMS Council, in collaboration with the DHHS EMS/Trauma Program, should generate standardized notebooks to be used for the safekeeping of all licensing and credentialing documents by the rescue squads. Each rescue squad should use the county template for safekeeping of their required inspection documentation.

**STS Discussions:**

A. Standardized notebooks will speed the process of licensure renewal, assure that all required documents have a “home”, and provide one complete resource for responding to inquiries from the state.
**EMS System Component: System Finance**

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>EMS agencies are financially stable organizations with approved budgets that are aligned with the EMS plan and priorities.</th>
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<table>
<thead>
<tr>
<th>Indicator</th>
<th>SCORING</th>
<th>Gage County</th>
<th>Agency Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>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.</td>
<td>Cost, charge, collection and reimbursement data are collected.</td>
<td>Cost, charge, collection and reimbursement data are collected.</td>
</tr>
<tr>
<td>4.2</td>
<td>Budgets are approved and based on historic and projected cost, charge, collection, reimbursement and public/private support data.</td>
<td>Data is collected, reports generated and there is an expense budget process, but it is not linked to revenue.</td>
<td>Data is collected and reports generated, but there is no formal budget planning process.</td>
</tr>
<tr>
<td>4.3</td>
<td>Financial resources exist that support the planning, implementation and ongoing management of the administrative and clinical care components of the EMS agency.</td>
<td>Administrative, management and clinical care planning is conducted and priorities are identified, but are not linked to the budget process.</td>
<td>Administrative, management and clinical care planning is conducted, but priorities are not identified.</td>
</tr>
</tbody>
</table>

**STS Observations:**
There are frequent comparisons made between the fire service and emergency medical services when funding is involved. STS found that Gage County is not without controversy in this regard.

The Gage County fire services are funded by local property taxes, state and federal grants, and other revenue sources such as the Nebraska Mutual Finance Organization (MFO). MFO funds are collected by insurance companies and are distributed across the state based on population density. In order to receive MFO funding, all fire districts in the county must use the same mill levy. The Nebraska Department of Property Assessment & Taxation (DPAT) annual report for 2006 indicates that the 14 Gage County Fire Taxing Districts received $282,744 in property taxes at rates ranging from 0.03 to 0.0447.

Gage County subsidizes the rescue squads by distributing a combination of property tax and the state inheritance tax to them. The rescue squads also receive revenue from Medicare & Medicaid reimbursement and private insurance billing. The monies

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distributed annually from the county total $223,473 distributed as follows: ARS $17,830, BRS $148,586, CRS $17,830 and the WRS $39,227.

BRS and WRS are fire-based while ARS and CRS are free-standing non-profit ambulance services. The fire departments and rescue squads regularly conduct fundraising programs to subsidize EMS operations.

**STS Recommendations:**

1) The GCBOS should pursue a Gage County EMS Taxing District under Nebraska law 13-303 to fund EMS.

2) The GCBOS EMS budget should be redeveloped to cover the necessary costs of implementing the county EMS strategic plan, including funding the placement of paramedics in the northern and southern parts of the county.

3) The GCBOS should fund a countywide medical director position as recommended in Benchmark 6.0.

4) The existing contracts with the rescue squads should be restructured so that they become performance based contracts rather than service based contracts.

5) STS found no evidence of any impropriety but recommends proactive management where a perception of a conflict of interest may form. In accordance with Nebraska law the GCBOS should implement appropriate accounting, fiscal, and contracting controls. The county Emergency Manager is a member of the WRS. Because of the resource distribution role of the EM, actual or perceived bias or favoritism for WRS could occur. Good public policy would require a transparent process and a full accounting whenever decisions are made for funding or activities that may benefit county employees serving in other capacities.

6) An appropriate member of each rescue squad should attend formal budget planning workshops sponsored by the DHHS EMS/Trauma Program.

7) The rescue squads should exhibit fiscal responsibility by using Nebraska state contracts when they qualify and by purchasing using national contracts maintained by the North Central EMS Cooperative or others.

**STS Discussions:**

A. Nebraska state statute 13-303 allows each county to provide emergency medical services as a governmental function and that “Any county board of counties and the governing bodies of cities and villages may pay their cost for such service out of available general funds or may levy a tax for the purpose of providing the service”. Following additional requirements, GCBOS may establish an EMS Taxing District with a levy that, “shall be in addition to all other taxes and shall be in addition to restrictions on the levy of taxes provided by statute, except that when a fire district provides the service the county shall pay the cost for the county service by levying a tax on that property not in a fire district providing the service”. This discussion is not intended to be construed as legal advice and the GCBOS should consult with legal advisors regarding the specific provisions of Nebraska law to generate adequate funding for an effective EMS System.
B. The county EMS budget should be developed in tandem with the development of the county EMS plan. Current and future community changes should be addressed with the appropriate countywide support of paramedic level services to enhance the existing basic life support services. This proposed budget can then be used to determine and justify the levy request. This will likely require public relations activities to adequately inform constituents of the issues and to generate public support for such a change, so it would be wise to include this strategy in the EMS plan.

C. Quarterly payments to rescue squads upon the submission of the reports listed in Benchmark 1.0 to the GCBOS would improve reporting compliance. DHHS EMS/Trauma Program is sponsoring a Budget Model Worksheet course in December 2007 at the EMS management leadership conference that would benefit rescue squads.

D. The cost of providing paramedic level services will no doubt be discussed by the system stakeholders. To assist these discussions beyond this report, the salary should be based on an average Beatrice paramedic hourly rate plus benefits. This amounts to approximately $19 per hour. 24/7 coverage equates to 8,760 hours per location, so a paramedic posted in Wymore and one posted in Adams will require $332,880 ($19 x 8,760 x 2). As described under Benchmark 1.0, these paramedics will be located at the clinics during clinic operating hours totaling approximately 2,000 hours per year per paramedic. So approximately $76,000 of cost recovery may be available through the federal rural health clinics leaving Gage County to fund $256,880 in salary and benefits. The necessary equipment and vehicles would cost approximately $30,000 per year ($75,000 x 2 ÷ 5 years depreciation).

E. The countywide medical director contract will require approximately $40,000 (25% x $150,000 + $2,500 travel/meetings) per year. This is a small investment in a quality EMS system that can be effective and reduce the risk of lawsuits, improve pre-hospital care and integrate medical oversight.

The following calculations are estimates only and should be validated using appropriate financial tools, data, and techniques:

Using the total 2007 tax valuation in Gage County of $1,565,307,438 as provided by the county assessor; STS estimates the 2007 county tax revenue totals approximately $29,358,087 by calculating the 2006 average property tax rate as published by the Nebraska DPAT\(^6\) of 1.8755%. To secure a minimal level of EMS funding totaling $330,000 would require an increase of only 1.18% in property taxes.

According to the Gage County Assessors Office, the average single family home in Gage County is valued at $78,807. The net effect of a 1.18% property tax increase on the average single family home is $17.44 per year [($1.855 per 100 prior to - $1.8977 per 100 after) x $78,807]. This remains

\(^6\) http://pat.ne.gov/researchReports/valuation/pdf/2006_Average_Rates_by_County_and_State_Average_Rate.pdf
far below the Nebraska state average of $1.952 per $100 of property valuation.

Rather than increasing the general county property tax, this tax assessment should be in the form of a special assessment EMS Taxing District. By using the special assessment, the public will know what the tax supports, the tax is directed to appropriate EMS programs, and the tax support of EMS is less likely to be jeopardized over time if the county has budget problems unrelated to the provision of EMS services.

F. The purpose of the DHHS EMS/Trauma Program’s EMS Leadership course is to jumpstart role shifts in leadership that develops quality leadership and contributes to the recruitment and retention of local EMS members. Students develop leadership skills by participating in facilitated class discussions, associated class activities and homework assignments.

G. Nebraska law 23-160 and 1609 indicate a requirement exists for annual auditing of county financial records as a “full and complete audit of the cash receipts and disbursements”. There could be additional statutory requirements demanding cooperation by all entities receiving public funds. STS defers to the expert legal counsel of Gage County for appropriate actions to be taken to protect public funds and the public officials.

H. The NCEMSC is a network of nearly 1,000 ambulance services in 28 states. NCEMSC is a non-profit purchasing cooperative that bids national contracts on behalf of its members, effectively pooling the purchasing power of all 1,000 members together. NCEMSC members currently purchase between $300,000 and $500,000 per month in medical supplies alone. NCEMSC maintains contracts for ambulance vehicles, defibrillators, office supplies, billing services and others. More information is available at http://www.ncemsc.org.
**EMS System Component: Human Resources**

**Benchmark 5.0**

The EMS agency has 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.

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<th>Indicator</th>
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<tr>
<td><strong>5.1</strong></td>
<td>The EMS agency 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 the EMS agency’s governing authority and clearly identify expectations and responsibilities for both the agency and staff.</td>
</tr>
<tr>
<td><strong>5.2</strong></td>
<td>Staff surveys or regular feedback sessions reflect that personnel understand applicable policies and procedures (e.g. schedules, equipment, protective gear, etc.), have access to required and advanced training, have leadership opportunities, and have access to stress management services as needed.</td>
</tr>
<tr>
<td><strong>5.3</strong></td>
<td>The EMS agency is fully staffed; personnel understand policies and their job duties/ responsibilities. Staff indicates that they have input into management and operational decisions, and have reasonable access to needed equipment, supplies, training, and support including stress management services as appropriate.</td>
</tr>
</tbody>
</table>
STS Observations:
BRS is staffed by full time paramedic firefighters who receive typical city benefits. ARS, CRS, and WRS are staffed primarily by unpaid volunteer EMTs who receive no benefits. All rescue squads describe having recruitment and retention difficulties however this is a larger problem for organizations dependent on volunteers. The volunteer organizations describe having the most difficulty in ensuring adequate personnel are available during business hours. Many people cite the length of initial training as the primary recruitment issue, which is addressed in the education section of the report.

There are no formal written recruitment or retention plans. Issues of recruiting new volunteers or retaining experienced volunteers are addressed ad-hoc.

STS Recommendations:
1) The rescue squad administrators should make use of free resources, such as the EMS recruitment and retention manual sponsored by the DHHS EMS/Trauma program and the EMS Recruitment and Retention Manual published by the US Fire Administration (available at http://www.usfa.fema.gov/downloads/pdf/publications/fa-157.pdf).

2) The EMS Council should develop a volunteer and employee survey to determine the factors affecting morale, motivations, and longevity.

3) The city councils and GCBOS should develop community support for volunteers by offering volunteer incentives such as:
   a. local tax breaks,
   b. municipal service discounts,
   c. public retirement plans,
   d. free training,
   e. paid National Registry exams,
   f. reimbursed conference travel,
   g. free clothing (patches, hats, jackets, and T-shirts), and
   h. paid subscriptions to EMS trade journals.

4) The EMS Council should promote regular rescue squad administration/officer networking opportunities both within Gage County and neighboring counties.

5) The EMS Council should share standardized personnel policies among rescue squads.

6) The city councils should encourage their city employees to participate as rescue squad members while “on the clock”.

STS Discussions:

A. Issues of recruitment and retention are not unique to Gage County. Many EMS organizations across the country describe difficulties in recent years with recruitment and retention. Reliance on community members to volunteer their time and resources can sometimes be a challenge. This can be helped by looking at national recommendations, instituting policies that encourage volunteerism, and reducing the need for persons to volunteer.

B. Incorporating lessons learned and best practices, rescue squads can learn from each other. By providing a regular forum to discuss what works and what doesn’t, and by expanding the reach of these discussions beyond Gage County, administrators can find new and innovative methods to use in their service. The purpose of the DHHS EMS/Trauma Program’s “Jump Kit” is to serve as a resource for emergency medical services who wish to develop a Recruitment and Retention Program or have internal issues that may be resolved through Team Building exercises. The kit is designed to help communities maintain an adequate number of EMT’s who function as a cohesive organization to meet the emergency health care needs of their community. The training provides suggestions and models for communities to develop and maintain a solid foundation that is support by adequate membership working as a team to meet the emergency health care needs of their community.
**EMS System Component: Medical Direction**

<table>
<thead>
<tr>
<th>Benchmark 6.0</th>
<th>The EMS agency has a physician medical director that has received medical director training, been recognized by the state and is actively involved in EMS issues including triage, treatment, and transport, dispatch, quality improvement, education and training.</th>
</tr>
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<tbody>
<tr>
<td>Indicator</td>
<td>SCORING</td>
</tr>
<tr>
<td>6.1</td>
<td>There is clear-cut responsibility for the EMS agency’s medical director including the authority to adopt protocols, to implement a quality improvement system, to restrict the practice of prehospital care providers, and to generally assure medical appropriateness of the EMS system.</td>
</tr>
<tr>
<td>6.2</td>
<td>The EMS agency medical director is actively involved with the development, implementation, and ongoing evaluation of protocols to assure they are congruent with the EMS and hospital system design. These protocols include, but are not limited to, which resources to dispatch (ALS vs. BLS), air-ground coordination, triage, 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.</td>
</tr>
<tr>
<td>6.3</td>
<td>The retrospective medical oversight of the EMS agency’s protocols for triage, communication, treatment, and transport is accomplished in a timely manner and is closely coordinated with the established quality improvement processes of the local healthcare system.</td>
</tr>
</tbody>
</table>
STS Observations:
There is no single physician responsible for medical oversight in Gage County. The medical direction services are provided largely pro bono by several persons who are affiliated with several different organizations:

- Dr. Stacey Goodrich from St. Elizabeth’s clinic is the medical director for the ARS.
- Dr. Brett Studley a physician at BCHHC provides medical direction for the Beatrice rescue squad, reviewing five to ten EMS patient care records per month via the BRS computer system. Additional case reviews are completed approximately once per quarter and are conducted at the hospital. Dr. Studley has not attended training for EMS medical directors.
- Dr. Leon Jons from Crete is the medical director for the CRS.
- Don Harmon, a Physicians Assistant, is the medical director’s surrogate for the WRS. Don works at the Rural Health Clinic in Wymore and has not attended training for EMS medical directors. Don Harmon is supervised by Dr. Brett Studley.

STS Recommendations:
1) Gage County should fund a single part-time EMS physician medical director to provide medical supervision countywide.
2) The Gage County EMS medical director should develop a medical supervision plan.

Even If Recommendations One And Two Are Delayed:
3) All medical directors should complete both the Nebraska specific and the national medical direction course as soon as possible.
4) Medical directors should receive basic awareness level training on e-NARSIS so that they understand it well enough to be able to run reports on the rescue squads they are supporting.
5) There should be standardized protocols/guidelines in use county wide in order to assure consistent service to the public as well as consistent skill competency exams, training and equipment.
6) A standardized medical director’s job description should be developed and implemented across the rescue squads.

STS Discussions:
A. The Nebraska EMS Medical Director’s course is available now and an online version of the national EMS medical director’s course is expected to be available by the end of 2007.
B. The roles and expectations of medical directors should be defined in writing, and they should be compensated for providing the service.
C. The purpose of the DHHS EMS/Trauma Program’s medical direction course is to provide an opportunity for physicians serving local emergency medical services the
opportunity to become better aware of their responsibilities as a Physician Medical Director for a local service. The training provides medical directors with the opportunity to share experiences as a PMD, to receive the PMD manual for reference and to learn about their role as a PMD. The EMS medical director should have a written agreement with the EMS agency(s) that includes the following responsibilities:

1. Approving the planned deployment of personnel resources.
2. Approving the manner in which licensed EMS personnel administer first aid or emergency medical attention without expectation of remuneration.
3. Documenting the review of the qualification, proficiencies, and all other EMS agency, hospital, and medical clinic affiliations of EMS personnel prior to credentialing the individual.
4. Documenting that the capabilities of licensed EMS personnel are maintained on an ongoing basis through education, skill proficiencies, and competency assessment.
5. Developing and implementing a program for continuous assessment and improvement of services by licensed EMS personnel under their supervision.
6. Reviewing and updating protocols, policies, and procedures at least every two (2) years.
7. Developing, implementing and overseeing a Medical Supervision Plan.
8. Collaborating with other EMS medical directors, hospital supervising physicians, and medical clinic supervising physicians to ensure EMS agencies and licensed EMS personnel have protocols, standards of care and procedures that are consistent and compatible with one another.
9. Designating other physicians to supervise licensed EMS personnel in the temporary absence of the EMS medical director.

D. The EMS medical director should have a written agreement with the EMS agency(s) that includes the following elements:

1. Identification of the EMS agency(s) for which he provides medical supervision.
2. Acknowledgement of the authority of the EMS medical director as established in Nebraska statute.
3. An effective date.
4. An expiration date or a provision for automatic renewal upon mutual agreement.
5. Assurance of EMS medical director access to relevant agency, hospital, or medical clinic records as permitted or required by statute to ensure responsible medical supervision of licensed EMS personnel.

E. The EMS medical director should have a written agreement with the EMS agency(s) that requires the medical director to:

1. Accept responsibility for the medical direction and medical supervision of the activities provided by licensed EMS personnel.
2. Obtain and maintain knowledge of the contemporary design and operation of EMS systems.

3. Obtain and maintain knowledge of Nebraska EMS laws, regulations and standards manuals.

4. Meet with the rescue squads at least twice a year.

F. The EMS medical director should have a written agreement with the EMS agency(s) that authorizes the medical director to:

1. Provide explicit approval for licensed EMS personnel under his supervision to provide medical care. Licensed EMS personnel may not provide medical care without the explicit approval of an EMS medical director.

2. Credential licensed EMS personnel under his supervision with a scope of practice. This scope of practice may be limited relative to the scope of practice authorized by the Commission but may not exceed the scope of practice established by the Commission.

3. Restrict the scope of practice of licensed EMS personnel under his supervision and withdraw approval of licensed EMS personnel to provide services when such personnel fail to meet or maintain proficiencies established by the EMS medical director or the Nebraska DHHS.

G. The medical supervision of licensed EMS personnel must be provided in accordance with a documented Medical Supervision Plan (MSP) that includes direct, indirect, on-scene, educational, and proficiency standards components. The EMS medical director is responsible for developing, implementing, and overseeing the MSP. However, non-physicians can assist the EMS medical director with the indirect medical supervision of licensed EMS personnel.
**EMS System Component: Education Systems**

**Benchmark 7.0** The EMS provides appropriate, competency based education programs to assure a competent work force.

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<tr>
<th>Indicator</th>
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<tbody>
<tr>
<td>7.1</td>
<td>The EMS agency has clear written educational requirements consistent with state and nationally recognized levels of training and has a structure in place to provide education and maintenance of clinical skills.</td>
</tr>
<tr>
<td></td>
<td>The agency has a structure in place to provide the educational needs of its employees.</td>
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<tr>
<td></td>
<td>The agency has written policies regarding minimum education and requirements and has a structure in place to provide some education and skill maintenance for its employees.</td>
</tr>
<tr>
<td>7.2</td>
<td>The EMS provides initial and continuing education programs including periodic testing, consistent with state and nationally recognized levels of care.</td>
</tr>
<tr>
<td></td>
<td>The agency provides a comprehensive program of initial and continuing education for its employees consistent with state and nationally recognized levels of care.</td>
</tr>
<tr>
<td></td>
<td>The agency provides for a program of initial and continuing education to its employees.</td>
</tr>
<tr>
<td>7.3</td>
<td>The EMS agency measures the effectiveness of its continuing education program by measuring competency on a regular, consistent basis and bases continuing education and remedial education on structured performance improvement processes.</td>
</tr>
<tr>
<td></td>
<td>Monthly continuing education is provided and individual competency is measured at least annually.</td>
</tr>
<tr>
<td></td>
<td>Clinical or field procedural problems are occasionally addressed in continuing education programs. There is no regular, consistent evaluation of competency.</td>
</tr>
</tbody>
</table>

**STS Observations:**
The initial EMT training for Gage County rescue squads is provided by Southeast Community College in Beatrice. The college requires a minimum of eight students to conduct a class. The total EMT class time as provided by the college is 150 hours, although state law requires only 110 hours. There are paramedic schools in Lincoln and Omaha. National registration is required only for initial certification and not required by the state of Nebraska or by the rescue squads for relicensure.

Although required for relicensure of rescue squad staff, continuing education is not centrally coordinated. The rescue squads should support each other by allowing any Gage County rescue squad member to attend any of their training meetings. The rescue squads should take full advantage of free continuing education classes sponsored by the DHHS EMS/Trauma Program.
**STS Recommendations:**

1) Each rescue squad should maintain a formal process to determine continuing education needs.

2) The rescue squad administrators and DHHS EMS/Trauma Program should meet with college staff to resolve the imbalance between states minimum required hours of initial education and the hours actually delivered by the school.

3) Gage County’s emergency manager should make available a web page specific to fire and rescue continuing education available to rescue squad staff.

4) The CHS curriculum should be implemented for the paramedics assigned to the Adams and Wymore clinics when it is available.

5) The rescue squads should work with the DHHS EMS/Trauma Program’s regional coordinator to receive technical assistance in scheduling classes.

**STS Discussions:**

A. There is a significant difference between the state’s required training hours and the hours being delivered by the community college. All three volunteer rescue squads report that initial training time is a significant barrier to their recruitment efforts.

B. While continuing education is open at each of the rescue squads to other personnel, there is no existing method to communicate the availability of such training. The web page suggestion could allow interested persons to connect with the contactor for the training. Rescue squads should also submit their training sessions to the state EMS training calendar for publication free of charge.

C. Some training is required by the state or federal government, but others training needs should be identified by the administrators, training officers, and medical directors. One consideration may be the lack of skill use based on the frequency of events. The skills fairs conducted by BCHHC should provide rescue squads considerable insight to the skills that would benefit from additional training and practice time.

D. The goal of the DHHS EMS/Trauma Program’s is to use the Continuing Education Calendar to inform the EMS providers of continuing education being offered during a six (6) month period. The calendar, available from the Program’s website, is a resource for informing EMS personnel of the new developments in Nebraska EMS, different training sessions that will be offered by the Nebraska EMS Program, special events such as EMS conferences and to advertise training opportunities being offered by agencies that are significant supporters of Nebraska EMS.
EMS System Component: Public Education

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>The EMS agency informs and educates local constituencies and policy makers to foster collaboration and cooperation for EMS enhancement and injury and/or illness prevention and control.</th>
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<tr>
<td><strong>Indicator</strong></td>
<td><strong>SCORING</strong></td>
</tr>
<tr>
<td>8.1</td>
<td>A public information and education program exists that heightens public awareness of the need for an EMS and the preventability of injury and/or illness.</td>
</tr>
<tr>
<td>8.2</td>
<td>An assessment of the needs of the general public concerning EMS information has been conducted.</td>
</tr>
<tr>
<td>8.3</td>
<td>The local EMS agency and trauma facilities enjoy strong public support.</td>
</tr>
</tbody>
</table>

STS Observations:
Recent pandemic illness planning has provided opportunities for EMS and public health officials to coordinate planning efforts however there is not a coordinated system for providing public education. The public health agency is not connected to the rescue squads, and there are no targeted efforts between the rescue squads, clinics and hospitals, although individually there may be minor efforts.

STS Recommendations:
1) The rescue squads should target events like the county fair and community gatherings to launch new public education initiatives.

2) The GCBOS should take ownership of the disconnect between the EMS providers and the public health contractor, perhaps using a contracting mechanism to assure the EMS system becomes more integrated and is recognized as a stakeholder in the public health of Gage County.

3) The EMS Council should develop a countywide Public Information, Education and Relations (PIER) plan.

4) The EMS Council should include the Outcome Measures when determining public education needs.
5) The rescue squads should seek a partnership with the hospital’s foundation, the DHHS EMS/Trauma Program, the Southeast Nebraska AHEC and the Gage County Medical Society directed to providing public education in an integrated manner.

STS Discussions:

A. An EMS system provides a number of public health functions but in Gage County it is disconnected from the public health contractor. The public health contractor’s board of directors should take the steps necessary to assure all emergency public health providers (including BCHHS) have defined roles and functions in their system.

B. A PIER plan could identify various appropriate venues, methods, and messages for providing public outreach. This may include events with large crowds such as the county fair, school sporting events and the federal park. If coordinated countywide than each rescue squad’s message will be reinforced by the efforts of the other squads.

C. Part of the hospital foundation’s mission is to support the public’s health. The director of the foundation is in a unique position to identify programs that will meet the mission of both the hospital and the rescue squads.

D. E-NARSIS can be used to identify public training needs, especially those areas identified in the EMS Outcome Measures where the public’s use of 9-1-1 is delayed.
### EMS System Component: Illness/Injury Prevention

#### Benchmark 9.0
The EMS agency actively supports community wellness and prevention activities.

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<td></td>
<td>Gage County</td>
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<tr>
<td>9.1 A written injury/illness prevention plan is developed and coordinated with other agencies. 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.</td>
<td>There are multiple injury and/or illness prevention programs that may conflict with each other and/or with the goals of the agency.</td>
</tr>
<tr>
<td>9.2 Injury/illness prevention programs use EMS information to develop intervention strategies.</td>
<td>There is no evidence to suggest that agency data are used to determine injury/illness prevention strategies.</td>
</tr>
<tr>
<td>9.3 The effect or impact of injury and/or illness prevention programs is evaluated as part of a system performance improvement process.</td>
<td>There is no effort to review the activities of the agency in prevention efforts.</td>
</tr>
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</table>

**STS Observations:**
Although the fire departments in Gage County actively promote fire safety, there is no community wellness or prevention programs or activities conducted by the rescue squads.

**STS Recommendations:**
1) The rescue squads should conduct public wellness and prevention activities in their communities.
2) The public health department and BCHHC should take the lead in engaging the rescue squads in a discussion about the identified wellness and prevention needs from prior community surveys.
3) Long term wellness and prevention activity planning should be coordinated between the EMS council, BCHHC and the public health agency.
STS Discussions:
A. Tactics should be developed based on the community need matched to the rescue squad services. Easy programs to implement would include interaction with the public at the county fair, and including prevention messages in patient billings.
B. Free resources from the DHHS EMS/Trauma Program, as well as those available through the National Highway Traffic Safety Administration should be used when possible.
**EMS System Component: Public Access**

**Benchmark 10.0**

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 EMS plan.

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<td><strong>10.1</strong></td>
<td>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.</td>
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| **10.2**  | 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. | Contact with the public is addressed when system failures occur. |

| **10.3**  | Unique populations (e.g., language, socially disadvantaged, migrant/transient, remote, rural, and others) present within the EMS response area are able to access the EMS agency system. | The system and stakeholders are beginning to consider the needs of unique populations |

**STS Observations:**

9-1-1 calls in Gage County are routed to a Public Safety Answering Point (PSAP) in Beatrice. The county’s PSAP is operated by the city of Beatrice, but is financially supported by both the city and the county.
Some local training on pre-arrival dispatch instructions, also known as Emergency Medical Dispatch (EMD), is not routinely provided and is without quality assurance monitoring. The Gage County 9-1-1 center handles 21,000 calls annually; 17,000 law enforcement related and 4,000 EMS and fire services.

Organizational communication between EMS system components related to dispatch have not always been clear and concise, leading to confusion among the participants even about what meetings have been held, let alone the results of such meetings.

The rescue squad dispatching function in Gage County is sporadic. There is no standardized method for answering the calls and providing information to the public or to the responding agencies. There are no systems in place to assure the public receives consistent pre-arrival information, nor is there any quality improvement/quality assurance of the instructions that are provided. Even though emergency medical dispatch cards are available to the dispatchers, there is no process in place to assure they are consistently used.

**STS Recommendations:**

1) The city of Beatrice and the GCBOS should require through ordinance or contract that PSAPs in the county use EMD for all calls determined to be medical in nature.

2) The EMS council should establish a communications subcommittee to become the forum for all issues regarding EMS system communications.

3) The EMS Council should develop a communications plan for use by all EMS system participants and coordinate its implementation.

**STS Discussions:**

A. A single nationally recognized EMD program should be selected, staff trained, and supplies purchased for implementation across Gage County. The Nebraska Law Enforcement Training Center makes this training available to all PSAPs in Nebraska. The city and the county may need to increase their subsidy of the communications center.
EMS System Component: Communication Systems

**Benchmark 11.0**
EMS agencies are able to transmit and receive electronic voice and data signals between its own agency assets (base, vehicles and personnel), between the agency and other community health care and public safety assets, and between the agency and regional/state health care and public safety assets.

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<tr>
<td><strong>11.1</strong></td>
<td>The agency has adopted a system communications plan. However, the plan has not been endorsed by multiple stakeholder organizations.</td>
</tr>
<tr>
<td><strong>11.2</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>11.3</strong></td>
<td>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.</td>
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**STS Observations:**
Gage County operates on a 450MHz high band system. Repeaters have been strategically placed throughout the county to assure effective radio communications. There are some dead spots in the 450 system, though, especially near Princeton. There is no standardized system for the provision of GPS service.
There are communication interoperability deficiencies between the Gage County rescue squads and Lincoln Fire & Rescue. The communication centers provide a 450 MHz to 800 MHz radio patch but it does not allow unit to unit communication. A technical interoperability coordination plan exists however the current systems are not meeting organizational needs. Interoperability in Gage County has generally been funded by the federal COPS grant program.

There is a communication issue involving the StarCare medical helicopter that compromises EMS personnel safety and provides operational challenges. Without a helipad at BCHHC, the helicopter must land at the airport where BRS transports the flight crew to and from the hospital. While StarCare is always able to communicate with the Gage County dispatch center, there are frequently issues in communicating with ambulance crews on the ground.

STS Recommendations:

1) The GCBOS should task the county emergency manager to fix and maintain the radio patch between Gage and Lancaster county communication systems.

2) The GCBOS should task the county emergency manager to eliminate existing known radio coverage gaps in Gage County’s 450 MHz system.

3) The GCBOS should task the county emergency manager with assigning the northern fire and southern fire channels as the primary communication link for StarCare. In the event those frequencies are unavailable due to another incident, a backup channel should be designated.

4) The GCBOS should engage the Board of Supervisors in Marshall County and enlist the assistance of the Nebraska and Kansas 911 oversight boards to mitigate a 911 call routing problem in Southern Gage and Northern Marshall Counties.

STS Discussions:

A. Permanent fixes between the Gage and Lancaster system were planned for earlier this year, but have not been completed. The Gage and Lancaster county boards must make this a priority issue. State and federal homeland security funds should be diverted by both counties from lower priority projects to fix this issue if possible.

B. Safety is compromised when a helicopter cannot communicate with first responders on the ground – both the safety of helicopter personnel and equally important, the safety of those on the ground. StarCare has the Gage County 450 MHz frequencies in their current in aircraft radios, but no channel is designated for use between StarCare and the rescue squads. Consequently StarCare is requested to use different frequencies each time they are activated, and sometimes they are asked to use the old low band channels which are not available for use in the aircraft. By simply designating primary and backup frequencies, all the confusion can be eliminated while enhancing safety.

C. Gage County communication issues would benefit from periodic discussion by the GCBOS during its regular agenda. This may include strategies and progress in improving the fundamental systems used within the county and communication interoperability with outside agencies and responders such as StarCare.
D. There is a dispatch issue in Marshall County, Kansas affecting WRS. Some residents of Kansas are connected to the Beatrice communication center when calling 911. This causes confusion to which rescue squad should be dispatched and causes delays in response to critical patients. The emergency manager has tried to resolve the issue, but Marshall County will not make resolution of the issue a priority.
## EMS System Component: Clinical Care

### Benchmark 12.0
EMS agencies are integrated into a resource-efficient, inclusive network that meets required standards and that provides optimal care for all patients.

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<tr>
<td><strong>12.1</strong> The EMS plan has clearly defined the roles and responsibilities of agency personnel and for those emergency department personnel in treatment facilities accepting patients from the prehospital personnel. Evidence based written prehospital patient care protocols and guidelines are maintained and updated.</td>
<td>The system plan clearly defines the roles and responsibilities of agency personnel and emergency department personnel in treatment facilities for trauma patients. Written protocols and prehospital care guidelines exist and are reviewed and updated at least annually.</td>
</tr>
<tr>
<td><strong>12.2</strong> Clinical care is documented in a manner that enables agency and system wide information to be used for quality monitoring and performance improvement.</td>
<td>Clinical care documentation is systematically reviewed at the local level but is not available electronically for quality monitoring and performance improvement.</td>
</tr>
<tr>
<td><strong>12.3</strong> Patient outcomes and quality of care are monitored. Deficiencies are recognized and corrective action is implemented. Variations in standards of care are minimized, and improvements are made routinely.</td>
<td>The agency and local hospital maintain an agency 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.</td>
</tr>
</tbody>
</table>

**STS Observations:**
The response configurations for 911 calls in Gage County vary by the location of the call. For requests in city limits, ambulances and the police or fire department respond. Sheriff Deputies rarely respond to medical calls due to their unavailability. The state patrol does not cover the county well, often times diverting their responsibilities to sheriff units.

Police units throughout the county are routinely outfitted with defibrillators, while the sheriff’s units are not. While most of the police have some medical training, only some deputies do. Paramedic service is provided by the BRS in their service area and by way of intercept in the southern two thirds of the county. Paramedic service is provided by way of intercept in the northern third of the county by Lincoln Fire and Rescue.
Lincoln Fire and Rescue has recently informed the ARS and CRS that they intend to discontinue intercept service in Gage County unless they receive increased funding from the communities.

BCHHC doesn't have a helipad, so StarCare must land at the airport. Adult patients are transferred by helicopter to other hospitals about once every other month. Neonates from are transferred by specialty care ground ambulance because it is easier to move the team and their equipment by ambulance. StarCare reports it is a 20 minute flight to most Gage County areas. Gage County uses an auto-launch process for StarCare and will be called off if they are not needed. When they can't fly, StarCare has a contract with Lincoln Fire & Rescue to transport the flight crew by ground.

STS Recommendations:
1) The BCHHC Foundation should consider becoming a “Heart Safe Communities” sponsor by funding AED equipment and training for law enforcement vehicles serving Gage County.
2) Lincoln Fire & Rescue’s retraction from providing paramedic intercept in the northern part of Gage County can be mitigated by adoption of the recommendations to place paramedics in the northern part of Gage County.
3) GCBOS and BCHHC should make a helipad a high priority with any new construction, using public funding mechanisms like municipal bonds if necessary.
4) The auto-launch program between the Gage County 911 communications center and StarCare should be designed around exiting national standards.
5) BRS and BCHHC administration should discuss any potential benefit (including cost benefits) of paramedics formally having a role in the emergency room or elsewhere in the hospital.

STS Discussions:
A. Studies throughout the United States have shown value in the placement of law enforcement defibrillators.

B. Helipads require extensive planning for landing safety and significant resources for quality construction. The placement of a helipad in relation to other structures and access to the emergency services area should occur in early work with architects. Some helipad funding may be available through the USDA, HRSA trauma grants, or various sources within the Department of Homeland Security.

C. There are a number of innovative programs in Nebraska where paramedics are being used as care providers in Critical Access Hospitals, reducing rescue squad staffing costs while increasing the number of care providers available in the facility.
### EMS System Component: Information Systems

**Benchmark 13.0**

There is an information system within the EMS that can evaluate system performance, track provider skills, and formulate policies based on the analysis of collected data.

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<td>Gage County</td>
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<tr>
<td>13.1</td>
<td>The EMS agency participates in a system data collection and information data sharing network, collects pertinent EMS data from field providers on each episode of care, and uses data for system improvements.</td>
</tr>
<tr>
<td>13.2</td>
<td>The information system is available for routine EMS and public health surveillance. It can be accessed by individual users as well as management for system oversight.</td>
</tr>
<tr>
<td>13.3</td>
<td>The information system is used to assess system and provider performance, measure compliance with applicable standards/rules and to allocate resources to areas of greatest need or acquire new resources as necessary.</td>
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</table>

**STS Observations:**
The DHHS eNARSIS system is available to provide reports back to the rescue squads in Gage County. The eNARSIS reporting mechanism includes a robust web based interface for generating reports. BRS is highly engaged in using the eNARSIS system for internal reporting.

The state’s eNARSIS system is relatively new. Ambulance services typically use it to generate reports about response times and number of calls, but it is capable of providing much more information. Standardized reports can be saved into the system for use in future periods. The system can track, for example, the number of times each EMT or paramedic is involved in caring for severely traumatized people, and how often they provide specific skills. This information can drive a program for continuing education within each service.
STS Recommendations:

1) The Gage County EMS services should be required to use a National EMS Information System Gold Standard Compliant vendor for electronic patient data collection.

2) The DHHS EMS/Trauma Program should provide targeted training and support to Gage County rescue squads.

3) The Gage County rescue squads should identify internal volunteers that are interested in performing quality research and appoint them to multi-year terms.

4) The public health agency should be engaged by the Gage County EMS Council for assistance in developing standardized reports that the rescue squads will use in reporting their performance to the GCBOS.

STS Discussions:

A. DHHS controls the contract with the vendor of the eNARSIS system. As standardized reports are identified, tested and validated, the vendor can script the report into the state system so that it is available for use by all services. Technical support of eNARSIS is a responsibility of DHHS, although it may be limited by legislative appropriations.

B. Volunteers that have interest in quality measures will produce the most ownership of participation in a countywide process. If this duty is assigned to a chief with other responsibilities and time constraints, it is less likely to be successful.

C. The public health department should be highly engaged in the creation of the reports, and consideration should be given to building upon existing public health data to promote prevention and wellness in Gage County.
### EMS System Component: Evaluation

**Benchmark 14.0**
The EMS uses its management information system to facilitate on-going assessment and assurance of system performance and outcomes and provides a basis for continuously improving the EMS.

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<tr>
<td><strong>14.1</strong></td>
<td>The EMS service provider has available for use computer technology advances and analytical tools for monitoring system performance.</td>
</tr>
<tr>
<td><strong>14.2</strong></td>
<td>EMS providers collect patient care and administrative data for each episode of care and provide these data not only to the hospital, but have a mechanism to evaluate the data within their own agency including monitoring trends and identifying outliers.</td>
</tr>
<tr>
<td><strong>14.3</strong></td>
<td>The EMS agency engages the medical community in assessing and evaluating EMS agency including participation in EMS research. Findings from research or other quality improvement efforts are translated into improved service.</td>
</tr>
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</table>

**STS Observations:**
There is no formal EMS system evaluation process. Strategic planning does not occur and no standardized tools are used.

**STS Recommendations:**
1) The GCBOS should require by contract that annual re-assessments by the rescue squads are coordinated by the EMS council and conducted using the EMS-BIS tool.
2) The Gage County EMS Council should seek out and make available to the rescue squads strategic planning specialists interested and experienced in EMS.
3) The GCBOS should expect delivered reports to show progress over time and eventually reward good performers and penalize poor performers through adjustments of subsidies.

STS Discussions:
A. As part of the process of this countywide evaluation, each agency now has a standardized tool for ongoing assessment, has completed an internal assessment, and has participated in a countywide consensus assessment. These tools should be used by the agencies in their own strategic planning processes, to set annual goals, and to measure their achievement of their goals.

B. The rescue squads will require technical assistance in developing and maintain strategic planning processes.
### EMS System Component: Medical/Health Disasters

**Benchmark 15.0**

The EMS agency’s activities 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.

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<tr>
<td><strong>Gage County</strong></td>
<td><strong>Agency Average</strong></td>
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<tr>
<td><strong>15.1</strong> The EMS agency has operational plans and has established an ongoing cooperative working relationship with other public safety and public health agencies to assure EMS system readiness to &quot;all-hazard&quot; multiple patient events.</td>
<td>The agency 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 &quot;all-hazard&quot; multiple patient events.</td>
</tr>
<tr>
<td><strong>15.2</strong> Disaster training and exercises routinely include situations involving natural (e.g., earthquake), unintentional (e.g., school bus crash), and intentional (e.g., terrorist explosion) trauma-producing events that test expanded response capabilities and surge capacity of the EMS consistent with the overall response plan and system.</td>
<td>Exercises and training in all-hazards disaster situations are regularly conducted and include testing of facility/clinic surge capacity. These exercises include agency, trauma, public safety and public health stakeholders. Debriefing sessions occur after each drill or event.</td>
</tr>
<tr>
<td><strong>15.3</strong> There are formal mechanisms to activate an optimal response to all-hazard events in accordance with EMS and disaster response plans and consistent with system resources and capabilities.</td>
<td>A formal system-wide analysis 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.</td>
</tr>
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</table>
STS Observations:
Gage County has federally required plans in place and exercises the plans. Federal Homeland Security funds are used to exercise the plans as well as to assure interoperability.

Mutual aid is a term used to describe the process by which one agency can request assistance from another agency, generally when an incident is so large that its own resources become overwhelmed. Gage, Jefferson, Saline, and Lancaster Counties maintain a functional Mutual Aid Association with a written agreement that is limited to fire services. There are no written mutual aid agreements for the provision of emergency medical services in Gage County although these situations occur every day.

To receive federal Homeland Security funding each jurisdiction is required to become “National Incident Management System (NIMS) Compliant” following federal guidelines. First responders in the general sense (police, fire, EMS), elected officials, appointed officials and others are required to complete specific National Incident Management System training as one part of becoming compliant. These basic training programs and materials are provided by the Department of Homeland Security for no cost. Gage County’s ability to seek federal reimbursement or assistance for any disaster may be compromised by the lack of countywide NIMS training requirements.

STS Recommendations:
1) The current level of activity related to plan review, exercise and evaluation should continue.
2) The Gage County EMS Council should develop a regional EMS mutual aid plan to include signed agreements.
3) The county Emergency Manager should be tasked with organizing ongoing NIMS training for all responders, elected officials, and appointed officials, and report compliance regularly to the GCBOS.

STS Discussions:
A. Written mutual aid agreements are necessary for several reasons. They provide public assurance that an ambulance will respond, even when local resources are exhausted. They provide a written record of the agreements that have been made. When built into the mutual aid planning process, such agreements provide rescue squad managers with the comfort and knowledge that a plan will be automatically engaged when they are unable to activate it because of managing an emergency or for any other reason.

B. The county Emergency Manager is the individual with the countywide responsibility to prepare for large scale emergencies. Through networks commonly available to emergency managers, frequently facilitated at the state level, this should not be a difficult proposition.
Attachment E: Lancaster County Rural Fire District Map
Attachment F: Jefferson/Gage County Tiering Protocol

Jefferson/Gage County Tiering Protocol

Chest Pain with arm, neck and/or jaw pain
Stroke
Difficulty Breathing
Unresponsive
Cardiac/Respiratory Arrest
Trauma (agricultural emergencies, motor vehicle accidents, gunshot wounds, stabbings, fall greater than 10 feet, impaled objects and amputations).
Burns
Drug Overdose
Drowning(s)
Diabetic Emergencies
Grand Mal Seizures or Status Epilepticus
OB/GYN Emergencies
Dispatcher can at anytime dispatch an ALS unit if he/she deems necessary.
If the patient’s signs and symptoms do not fall under this listing, the BLS unit may request assistance from the closest ALS unit by notifying the communication centers.
Attachment G: Gage-Jefferson-Saline-Lancaster Mutual Aid Agreement

This Agreement made and entered into by and between the counties, cities, villages, and rural fire protection districts of Gage county, Jefferson County, and Saline County, namely: Adams, Barneon, Beatrice, Blue Springs, Clatonia, Cornell, DeWitt, Diller, Daykin, Fairbury, Filley, Hallam, Jansen, Odell, Pickrell, Plymouth, Steele City, Swanton, Wymore, Beatrice Rural Fire Protection District, Fairbury Fire Protection District, Ambulance District #33, Gage County Emergency Management Agency, Saline County Emergency Management, and the Jefferson County Emergency Management Agency, Hereinafter referred to as Members of the 3 & 33 Mutual Aid Association or Members.

WITNESSETH:

WHEREAS, on occasion each Member of the Mutual Aid Association has a need for additional aid from other sources in order to adequately combat fire, and other emergencies, and

WHEREAS, the Members hereto desire to combine their resources and expertise to provide mutual aid in the case of fire, and other emergencies and to promote the prevention of fires through public education in the area served by the Mutual Aid Association

NOW, THEREFORE, in consideration of the mutual covenants herein, the parties agree as follows:

1. The members of the 3 & 33 Mutual Aid Association pledge their assistance to each other in the use of fire apparatus, firefighters, fire officials, fire equipment and any other items of fire defense required to control fire and emergencies a pledge to promote the prevention of fire through public education in the area served by the 3 & 33 Mutual Aid Association.

2. Each Member agrees that a request for mutual aid shall only be made by the officer in charge at the scene of the fire or other emergency. It is understood by the parties that the Fire Chief of the member from whom aid is requested, or in case of his absence or disability, the person in active charge of the fire department may, in his discretion, retain in the Members’s city, village, or district.
Such equipment and personnel as may in his opinion be necessary for the proper and adequate protection of the city, village, or district and shall dispatch for the protection of the fire alarm or calls by authorized persons, and in his opinion, can for the time being, be safely spared from the city, village or district, and in case an emergency arises within the city, village or district, while the equipment and personnel of the fire department are engaged in fighting a fire for the Member, the person in active charge of the fire Department, may in his discretion, recall to the city, village or district from the service of said Member such equipment and personnel as he may in his opinion consider necessary to meet said emergency. The determination of the equipment shall be furnished or withdrawn, as provided herein, shall be final and conclusive. In no event will any Member of the Mutual Aid Association be liable to any other Member for failure to provide mutual aid.

3. Each member agrees to maintain a fire department adequate for its ordinary fire protection purposes, and shall call on other Members for additional fire protection service only for a fire or other emergency too large to be handled by its fire department or when its fire department is already engaged at a fire.

4. This agreement shall remain in effect as to all parties until termination by any of the parties hereto up on thirty (30) days written notice setting forth the date of such termination. Withdrawal from this agreement by one party shall not terminate this agreement among the remaining parties.

5. Any municipal corporation which is not an original Member of the Mutual Aid Association may become a member (1) if its governing body adopts this agreement and agrees to be bound by its terms and (2) if two-thirds (2/3) of the governing bodies of the Members vote by a majority vote of the members elected to each governing body to consent to the participation of the proposed member in this agreement.

6. The 3 & 33 Mutual Aid Association shall consist of the fire departments or county agency of each Member, and the Association shall be governed by the Board of Directors, hereby established. The Fire Chief or Director of each Member shall designate one person who is a representative member of the fire department or agency of such Member to serve on the Board of Directors for a term of two (2) years as provided by the Constitution and By-laws of the Association. If any appointee ceases to be a member of the fire department / agency of such member, his or her term on such Board shall cease, and a new member shall be appointed for the remainder of the unexpired term. For a quorum of the Board of Directors to exist, there must be ten (10) of the Board members present. All decisions of the Board shall be by a vote of a majority of the Board members present. The Board of directors is hereby empowered to assess annual dues for membership in the 3 & 33 Mutual Aid Association not to exceed Fifty and 00/100 Dollars ($50.00)
The Board of Directors shall elect Officers during the first Meeting of each year:

A. President for a 1 year term.
B. Vice President for a 2 year term, after the first year of term the Vice President shall become President for his 2nd year of term.
C. Secretary/Treasurer can be an elected position from year to year or can be held by a member over a period of years for continuity
D. Regular Meetings shall be quarterly each year, and the first Monday of the month, starting in February, May, August, and November
E. Special Meetings can be called by any Two (2) of the Officers. Meetings shall be conducted in a central location within the Mutual Aid Association.

7. It is understood that each Member shall retain control of its own personnel and equipment and that the fire chief or director or his or her designated representative of the Member requesting mutual aid shall be the coordinator in charge of the entire task force for the duration of emergency requiring the use of mutual aid. Each Member (except a HAZ MAT response) shall be liable for its own actions and shall be responsible for its own expenses from the time of the call for response throughout the first 60 hours of deployment. The calling department has the right to send any or all departments home before the 60 hour time billing limit. After the first 60 hours of deployment to a call for mutual aid the calling department shall be responsible for all expenses. These expenses shall be for equipment, and expendable supplies. Billing for equipment shall be based on Determining Fire Department Operating and Suppression cost of the Nebraska Forest Service Fire Control / FEMA rates as of date of incident. Bills shall be brought and presented to 3 & 3 Mutual Aid Association for approval. The 3 & 3 Mutual Aid Association shall then submit the bills to the calling department for payment.

In case of a HAZ MAT response each department shall notify emergency management agency of the county. They will determine the severity of the scene for a response / no response of the Beatrice HAZ MAT Team. Expenses / reimbursement will be sent to the calling agency.

8. Each member shall self-insure or contact for insurance against any liability for personal injuries or property damage that may be incurred by its or by its personnel as result of activities conducted pursuant to this agreement.

9. The Board of Directors created hereunder is not a separate or new legal entity of any real or personal property acquired hereunder shall be held as tenants in common by all Members.

P. Welch
Date 5-6-02

V. Minick
Date 5-6-02
### Attachment H: 3 & 33 Mutual Aid Association Mailing List

<table>
<thead>
<tr>
<th>Name</th>
<th>Agency</th>
<th>Address</th>
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<tr>
<td>Scott Buhr</td>
<td>Adams Fire Department</td>
<td>10315 S 176 Rd</td>
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<td>68301</td>
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<td>Myron Jurgens</td>
<td>Adams Rescue</td>
<td>Rt 1 Box 150</td>
<td>Adams</td>
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<td>68301</td>
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<tr>
<td>Joe Grubbs</td>
<td>Ambulance District 33</td>
<td>606 3rd Street</td>
<td>Fairbur</td>
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<tr>
<td>John McMurry</td>
<td>Burston Fire Department</td>
<td>206 Grand Ave.</td>
<td>Barnsto</td>
<td>NE</td>
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<tr>
<td>Brie Drake</td>
<td>Beatrice Fire Department</td>
<td>310 Ella</td>
<td>Beatrice</td>
<td>NE</td>
<td>68310</td>
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<tr>
<td>Jim Engel</td>
<td>Beatrice Rural Fire Department</td>
<td>1292 W Hackberry</td>
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<td>Brad Robinson</td>
<td>Blue Springs Fire Department</td>
<td>504 S A Street</td>
<td>Blue Springs</td>
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<td>Ron Miller</td>
<td>Clatonia Fire &amp; Rescue</td>
<td>4841 SW 86 Rd</td>
<td>Clatonia</td>
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<td>David Niemeyer</td>
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<tr>
<td>Shawn Weise</td>
<td>Dewitt Fire &amp; Rescue</td>
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<tr>
<td>Pat Johnson</td>
<td>Daykin Fire &amp; Rescue</td>
<td>106 Rachel Drive</td>
<td>Daykin</td>
<td>NE</td>
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<tr>
<td>Jeff Nelson</td>
<td>Diller Fire &amp; Rescue</td>
<td>421 Lavelle Street</td>
<td>Diller</td>
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<tr>
<td>Eric Voss</td>
<td>Fairbury Fire Department</td>
<td>619 D Street</td>
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<td>Randy Whelsch</td>
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<td>56875 714 Rd</td>
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<tr>
<td>Terry Robinson</td>
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<td>12392 E Hoyt Rd</td>
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<td>Roger Koch</td>
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<td>Maitell</td>
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<tr>
<td>Mike Stansberry</td>
<td>Homestead National Monument</td>
<td>8523 W State Highway 4</td>
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<td>P.O. Box 33</td>
<td>Odell</td>
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<td>Gary Vorderstrasse</td>
<td>Plymouth Fire Department</td>
<td>57375 724 Rd</td>
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<td>Ron Hausman</td>
<td>Pickrell</td>
<td>231 Kimball Street</td>
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<tr>
<td>Dale Ebeling</td>
<td>Steele City Fire Department</td>
<td>208 E Curtis Street</td>
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<td>Gary Barta</td>
<td>Swanton Fire Department</td>
<td>P.O. Box 94</td>
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<tr>
<td>Scott Havel</td>
<td>Wilber Fire &amp; Rescue</td>
<td>P.O. Box 705</td>
<td>Wilber</td>
<td>NE</td>
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<tr>
<td>Alan Orf</td>
<td>Western Fire &amp; Rescue</td>
<td></td>
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<tr>
<td>Rod Nickel</td>
<td>Western Fire &amp; Rescue</td>
<td>211 S Burchard</td>
<td>Western</td>
<td>NE</td>
<td>68464</td>
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<tr>
<td>Gordon Michaelis</td>
<td>Wymore Fire &amp; Rescue</td>
<td>118 East D</td>
<td>Wymore</td>
<td>NE</td>
<td>68466</td>
</tr>
<tr>
<td>Mark Meints</td>
<td>Gage County Emergency Mgt</td>
<td>P.O. Box 661</td>
<td>Beatrice</td>
<td>NE</td>
<td>68310</td>
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<tr>
<td>John McKee</td>
<td>Jefferson County Emergency Mgt</td>
<td>313 South K Street</td>
<td>Fairbury</td>
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<tr>
<td>Adam Matzner</td>
<td>Nebraska State Fire Marshal</td>
<td>27932 S 23 Rd</td>
<td>Beatrice</td>
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<td>68310</td>
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<tr>
<td>Doug Fuller</td>
<td>Nebraska HHS EMS Division</td>
<td>P.O. Box 95007</td>
<td>Lincoln</td>
<td>NE</td>
<td>68506</td>
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<tr>
<td>Jill DuBois</td>
<td>Beatrice Community Hospital</td>
<td>1110 N 10th Street</td>
<td>Beatrice</td>
<td>NE</td>
<td>68310</td>
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<tr>
<td>BJ Fictum</td>
<td>Saline County Emergency Mgt</td>
<td>4th &amp; Main Street</td>
<td>Wilber</td>
<td>NE</td>
<td>68465</td>
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</tbody>
</table>
Attachment I: Gage County BFR Subsidy Agreement

AGREEMENT

THIS AGREEMENT is made and entered into on this 15th day of May, 2000 by and between the City of Beatrice, Nebraska, a Municipal Corporation, hereinafter referred to as "City", and The County of Gage, Nebraska, a body politic and corporate, hereinafter referred to as "County".

WITNESSETH:

WHEREAS, Neb. Rev. Stat. Section 13-303 (1997) authorizes City and County to enter into an agreement with each other under the Interlocal Cooperation Act for the purpose of providing necessary ambulance service;

WHEREAS, County has established an emergency medical service within Gage County; and

WHEREAS, County desires to enter into an Interlocal Cooperation Act Agreement with City whereby City will provide necessary ambulance service to areas inside the limits of City and to certain areas of Gage County located outside of the City limits of Beatrice on behalf of County.

NOW, THEREFORE, in consideration of the mutual covenants herein, the parties agree as follows:

1. **Term.** This agreement shall be for a term of two (2) years beginning on August 1, 2000 and ending on July 31, 2002 and shall continue from year to year thereafter until written notice of termination is given by either party to the other party at least ninety (90) days prior to the end of a particular annual term. County and City both agree to hold a public hearing prior to exercising the right of termination as set forth in this paragraph.

2. **Necessary ambulance service.** City agrees to dispatch necessary ambulance services from the Beatrice Fire Department facility located inside the city limits of Beatrice to areas in Gage County located inside the limits of City and located within the portions of the jurisdictional boundaries of the Beatrice Rural Fire Protection District, the Filley Rural Fire Protection District, and the Pickrell Rural Fire Protection District designated by the color blue (Area A) on the attached map, marked as Exhibit "A" and attached hereto and incorporated herein by this reference. This ambulance service shall
include both emergency and non-emergency transfers to major hospitals located outside of Gage County, as may be necessary. The City of Beatrice, Nebraska shall be the administrator of this agreement. If the Pickrell Rural Fire Protection District ("Pickrell") becomes licensed by the State of Nebraska to perform basic life support/nontransport services needed due to medical emergencies, then City agrees to enter into an Interlocal Cooperation Act agreement with Pickrell to pay to Pickrell an amount not to exceed $5,000 per year for Pickrell to perform such services within its jurisdictional boundaries. Such agreement shall include a provision increasing the compensation paid to Pickrell by 2.5% for each year after the first year of the agreement.

3. Fee Charges. It is agreed by the parties that City shall establish, and from time to time shall amend, a reasonable fee structure to be paid by users of such necessary ambulance services, the revenue from which shall be retained by City for operating essentials for the furnishing of such services and the amortization of the cost of purchasing and maintaining ambulance and emergency vehicles and other personal property. It is agreed by the parties that all such ambulance and emergency vehicles and other personal property shall be the property of the City and may be disposed of by City at its discretion.

4. County Fees. The County agrees to pay to City an annual fee to City for the services described in Paragraph 2. The amount of the annual fee due to City for the period from August 1, 2000 to July 31, 2001 shall be $125,000.00, and such amount shall be paid in four equal installments of $31,250.00 due on October 1, 2000, January 2, 2001, April 1, 2001 and July 1, 2001. The amount of annual fees due to City for the period from August 1, 2001 to July 31, 2002 shall be $128,125.00, and such amount shall be paid in four equal installments of $32,031.25 due on October 1, 2001, January 2, 2002, April 1, 2002 and July 1, 2002. Thereafter, the annual fee for each year shall be for the period from August 1st to July 31st of the following year ("fiscal year"), and such annual fee shall be the sum of the annual fee paid to City for the preceding fiscal year and 2.5% of the annual fee paid to City for the preceding fiscal year. Such fee shall be paid in four equal installments of 25% of the total annual fee due on October 1st, January 2nd, April 1st and July 1st of the respective fiscal year.
5. County and City both agree to hold a public hearing concerning the provision of ambulance service in accordance with Neb. Rev. Stat. Section 13-303 (1997). Such public hearing shall be held on or before the date that this agreement is approved by the respective governing bodies.

6. This Agreement constitutes the entire agreement among the parties hereto with respect to the subject matter hereof, and supersedes any prior understandings or written or oral agreements between the parties with respect to the subject matter of this Agreement. No amendment, modification or alteration of the terms of the Agreement shall be binding on any party unless the same is in writing, dated subsequent to the date hereof, and is duly executed by the party against whom enforcement is sought.

7. Neither party shall assign its obligations under this Agreement, in whole or in part, without the written consent of the other party. Approval of such assignment shall not be unreasonably withheld. Neither party shall subcontract any of its obligations under this Agreement, in whole or in part, without the other party's written consent.

8. City of Beatrice agrees to indemnify and hold harmless, protect and defend Gage County and its elected and appointed officials, employees, agents, and representatives against any and all claims, demands, suits, actions, payments and judgments, including any and all costs and expenses connected therewith, legal cost or otherwise, for any damages which may be asserted, claimed, or recovered against or from Gage County or its insurers, because of personal injury, including bodily injury or death, or on account of property damage, including loss of use thereof, sustained by any person or persons which arises out of, is in anyway connected with or results from any and all work or activity associated with the services provided by City under this agreement.

9. Effective on August 1, 2000, the Interlocal Cooperation Act Agreement between the City and the County
dated October 17, 1994 is superseded in its entirety by this Interlocal Agreement.

Attest:

Steven Sandora
City Clerk

Attest:

Sandra Eltis
County Clerk

CITY OF BEATRICE, NEBRASKA
A Municipal Corporation

By
Mayor

THE COUNTY OF GAGE,
NEBRASKA,
A Body Politic and
Corporate

Chairman

D. T. Anderson