

Special Report: Emergency Medical Services in Nebraska

Highlights

Seven EMS Program Regions

Currently there are seven Emergency Medical Services (EMS) Program Regions in Nebraska. These regions differ from the Health Planning Regions presented throughout this Data Book.

Types of EMS Services in Nebraska

Three types of EMS services are licensed by the state of Nebraska: Advanced Life Support (Advanced), Basic Life Support (Basic), and Training Agencies. Both Advanced and Basic services provide direct emergency health care, while Training Agencies provide education and training to the emergency health care providers. Advanced and Basic services are authorized by the state as either transport or non-transport.

Distribution of Services Across Nebraska

At the time these data were collected, there were 440 EMS services in Nebraska: 72 Advanced services (16%), 342 Basic services (78%), and 26 Training Agencies (6%). The Northeast EMS region contains the greatest number (96) of EMS services, of which 77% are Basic services. The Western EMS region contains the fewest number (37) of EMS services, of which 81% are Basic services.

EMS Services That Provide Emergency Health Care

When considering only the Advanced and Basic services in Nebraska, Basic services make up 83% of the EMS services that provide emergency health care in Nebraska. Of these Basic services, 14% are licensed as non-transport services.

Types of EMS Providers in Nebraska

Four levels of licensure are available to out-of-hospital providers: First Responder (FR), Emergency Medical Technician (EMT), Emergency Medical Technician – Intermediate (EMT-I), and Emergency Medical Technician – Paramedic (EMT-P). At the time these data were collected, 9,126 EMS providers were licensed by the state. Of these providers, 11% were FRs, 75% were EMTs, 2% were EMT-Is, and 9% were EMT-Ps.

Actively Practicing EMS Providers in Nebraska

Of the 9,126 EMS providers licensed by the state, in 2005 only 7,201 providers were actively practicing in the state. Of these providers actively practicing, 77% were licensed as EMTs, while EMT-Is and EMT-Ps together made up only 12%.

Note: Percentages may not total 100.

Continued on page 250

Highlights (continued)

Distribution of EMS Providers Across Nebraska

In all EMS regions, EMTs make up the majority of EMS providers. The Metro EMS region contains the greatest numbers of EMT-Is and EMT-Ps, while the South Central EMS region contains the fewest total number of EMTs with advanced levels of training.

Demographic Breakdown of EMS Providers

Sixty-one percent of the EMS providers in Nebraska are male. However, according to state EMS administrators, the number of female providers has increased in recent years. In fact, some services in the state are dominated by female providers. The average age of EMS providers is 41 years. Providers must be at least 18 to be eligible for licensure. The oldest provider in Nebraska is 88 years old.

Achievements and Barriers for EMS in Nebraska

EMS in Nebraska has made important advancements but still faces significant barriers. For a full description of achievements and barriers, see pages 277 through 283.

Report Profile

EMS Services

Total Number of EMS Services in Nebraska	440
Advanced	72
Basic	342
Training Agency	26

Transport Status

Advanced – Transport	72
Advanced – Non-transport	0
Basic – Transport	299
Basic – Non-transport	43

Number of EMS Services per EMS Program Region

Panhandle (11 counties)	38
Western (16 counties)	37
North Central (17 counties)	63
Northeast (17 counties)	96
South Central (17 counties)	79
Southeast (12 counties)	85
Metro (3 counties)	42

EMS Providers

Total Number of Licensed EMS Providers in Nebraska	9,126
EMT – Paramedic	843
EMT – Intermediate	213
EMT	6,870
First Responder	992
EMT Instructor	208

Total Number of Actively Practicing EMS Providers in Nebraska	7,201
EMT – Paramedic	659
EMT – Intermediate	181
EMT	5,578
First Responder	613
EMT Instructor	170

Total Number of Licensed EMS Providers with Unknown Affiliation	1,925
EMT – Paramedic	184
EMT – Intermediate	32
EMT	1,292
First Responder	379
EMT Instructor	38

Total Number of EMS Providers Practicing in More Than One County	504
EMT – Paramedic	131
EMT – Intermediate	23
EMT	297
First Responder	9
EMT Instructor	44

Actively Practicing EMS Providers Per 1,000 Population in Nebraska	
EMT – Paramedic	0.44
EMT – Intermediate	0.12
EMT	3.36
First Responder	0.36

Gender Breakdown for EMS Providers by License Type	Male	Female
EMT – Paramedic	80%	20%
EMT – Intermediate	81%	19%
EMT	66%	34%
First Responder	68%	32%
EMT Instructor	66%	34%

Age Breakdown for EMS Providers	
18 to 24 years	6%
25 to 44 years	56%
45 to 64 years	36%
65 or older	2%
Age Range	
Minimum	18 years
Maximum	88 years
Mean	41 years

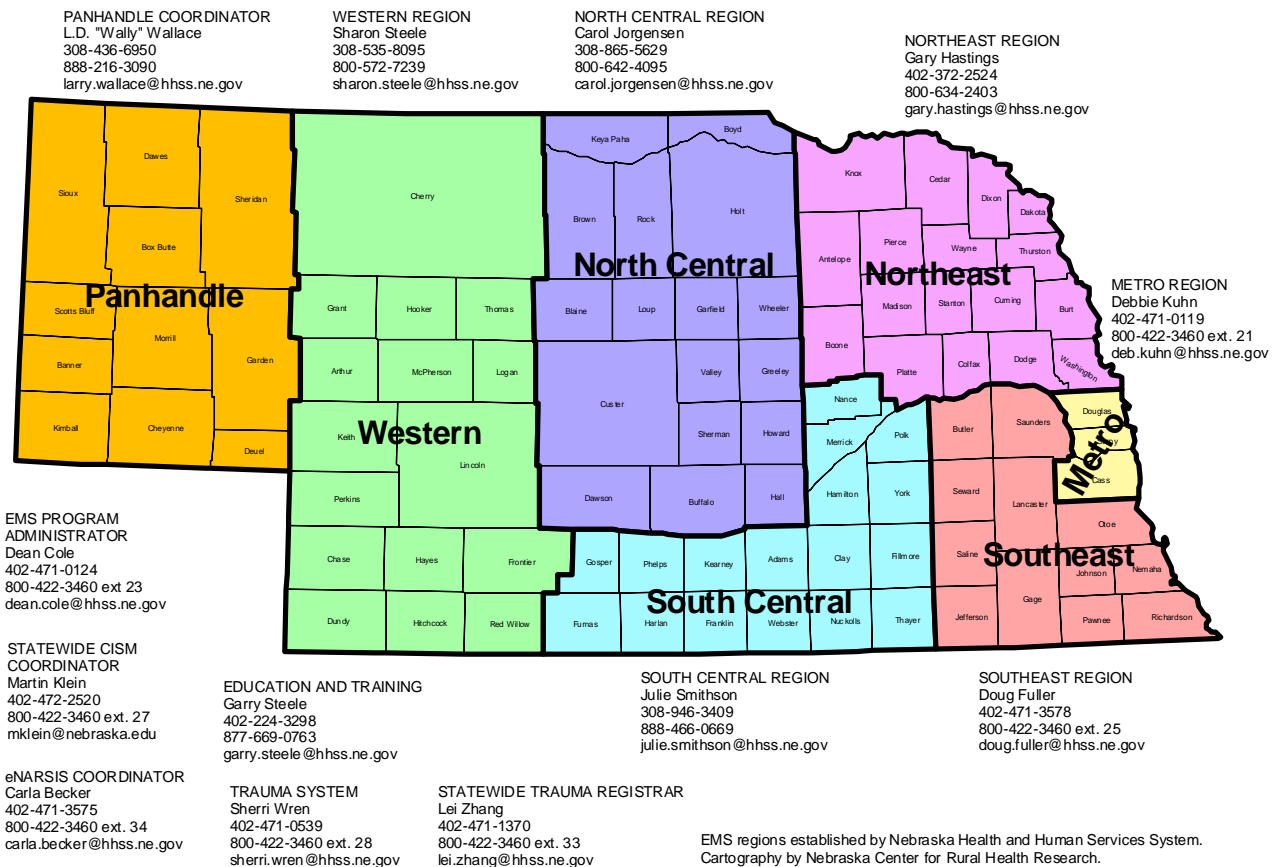
State-to-state Comparison

State-to-state comparisons of EMS programs can lead to confusion and misinterpretation. Every EMS program is designed to meet the specific needs of the state in which it functions. All state EMS programs have unique rules and regulations for services and providers. The state EMS program in Nebraska has been designed to address the needs of emergency health care in Nebraska. According to the National EMS Scope of Practice Model, “The challenge facing the EMS community [throughout the United States] is to develop a system that establishes national standards for personnel licensure and their minimum competencies while remaining flexible enough to meet the unique needs of the state and local jurisdictions.”¹

Mission of the Nebraska EMS Program

“The mission of the EMS Program is to strengthen emergency care through cooperative partnerships to promote the well being of the citizens of Nebraska and those who live and work in the State.”²

Figure 1 - Nebraska Emergency Medical Services Program



EMS Program Regions vs. Health Planning Regions in Nebraska

Data in previous chapters have been presented using the Health Planning Regions (HPRs) defined by the Nebraska Health and Human Service System (NHHSS) in 2001. The following chapter presents data using regions redefined by the EMS program, part of NHHSS, in 2001. In this chapter, reference to the Nebraska HPRs will only be made when presenting data on numbers of practicing EMS providers per HPR.

Emergency Medical Service Type Distinctions

Basic Service* vs. Advanced Service

The major differences between Basic and Advanced services are reflected in the health services each type is authorized by the state to provide. For example, all types of EMTs, including EMTs with advanced levels of training (EMT-Is and EMT-Ps), practicing through a Basic service are only authorized to provide Basic Life Support (BLS) levels of care regardless of scope of practice determined by level of licensure. On the other hand, EMTs practicing through an Advanced service are authorized to operate within their full scope of practice. Therefore, EMTs with advanced levels of training, practicing through Advanced services, are authorized to provide Advanced Life Support (ALS) levels of care.

*Some Basic services may also be considered First Responder services. However, First Responder services are not required to be licensed by the state. First Responder services that are licensed by the state are included in the Basic service data presented in this chapter. First Responder services that are not licensed by the state are not included in the data presented in this chapter.

Transport vs. Non-transport Services

All Advanced and Basic services are required by the state to be designated as a transport or non-transport service. Transport services are authorized by the state to transfer patients from the out-of-hospital setting to a nearby emergency care facility; these services are required to operate an ambulance and possess the equipment required to transport patients. Non-transport services are not authorized to transport patients, and therefore, are not required to have or operate an ambulance. All EMTs practicing through the non-transport Advanced and Basic services are not authorized to transport patients regardless of their individual scope of practice determined by level of licensure. (See Figure 2 for locations of transport and non-transport services in Nebraska.)

EMS Training Agencies

The purpose of EMS Training Agencies is to educate and train emergency health care providers. Training agencies do not directly deliver health care services to the public. These services are not required by the state to be distinguished as Basic or Advanced, or as transport or non-transport services. A full list of requirements can be found in Title 172, NAC 13.

Figure 2 - Transport and Non-transport EMS Services, Nebraska 2005

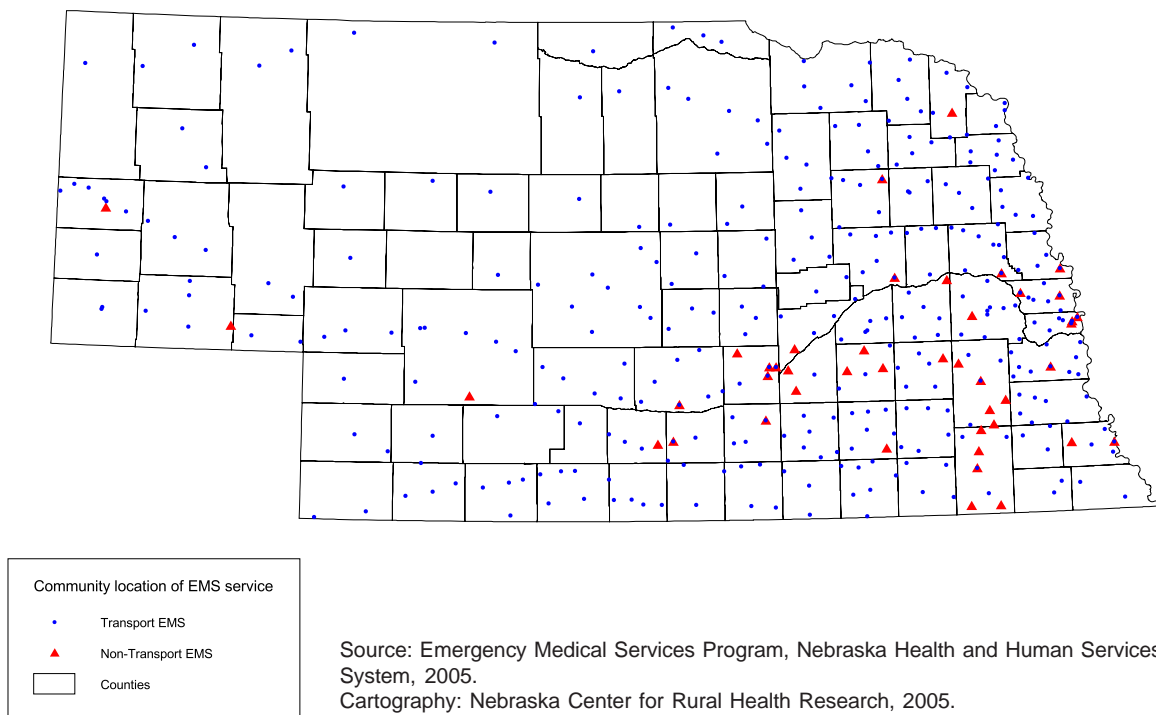
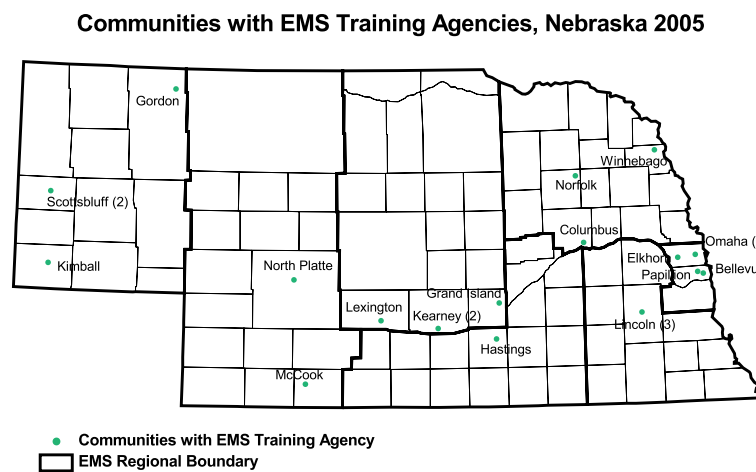
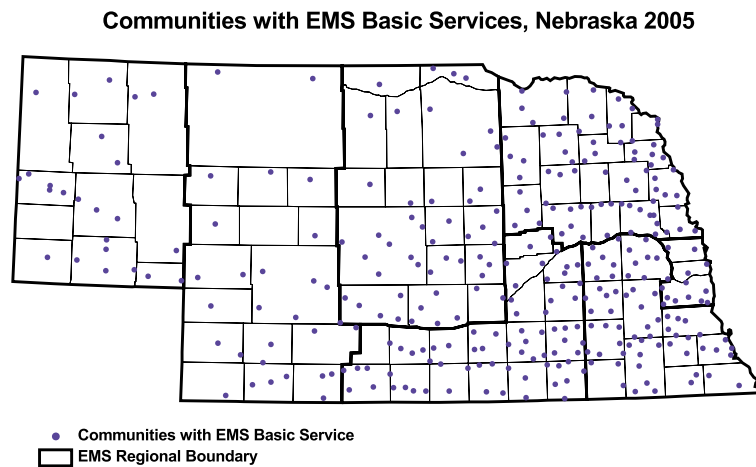
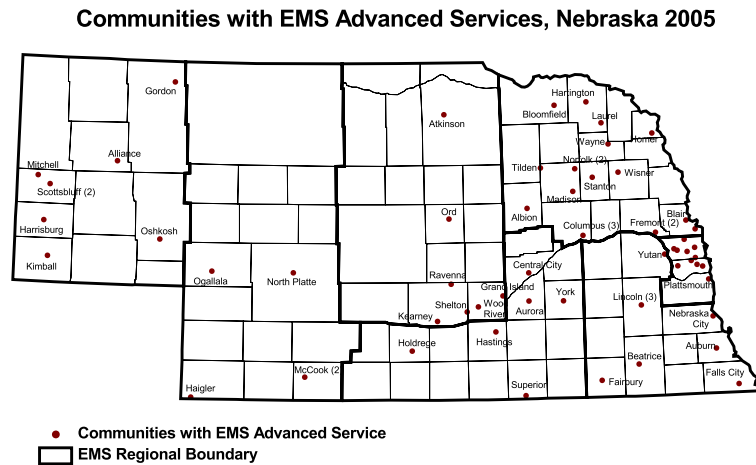


Table 1 - Number of EMS Services per EMS Program Region by Type of Service, Nebraska 2005

	<u>Advanced Service</u>	<u>Basic Service</u>	<u>Training Agency</u>
Panhandle	8	26	4
Western	5	30	2
North Central	7	52	4
Northeast	19	74	3
South Central	6	72	1
Southeast	9	73	3
Metro	18	15	9

Source: Nebraska Health and Human Service System, Regulation and Licensure, Credentialing Division, December 2005.

Figure 3 - Communities with EMS Services by Type, Nebraska 2005



Source: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division. December 2005.

EMS regional boundaries established by Nebraska Health and Human Services System.

Cartography by Nebraska Center for Rural Health Research.

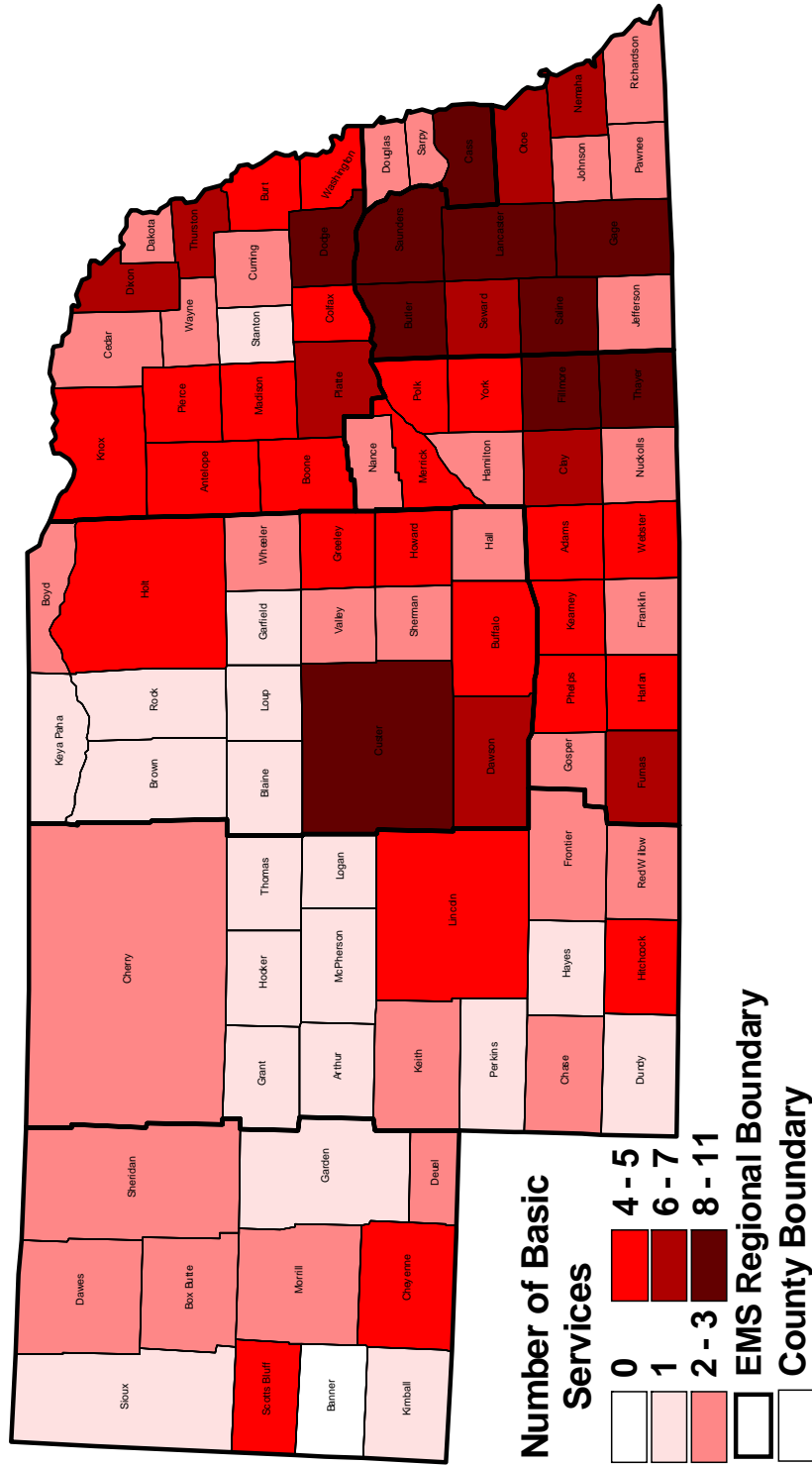
Table 2 - Number of EMS Services by Type and County, Nebraska 2005

County	Advanced Service	Basic Service	Training Agency	County	Advanced Service	Basic Service	Training Agency
Adams	1	4	1	Johnson	0	3	0
Antelope	0	4	0	Kearney	0	4	0
Arthur	0	1	0	Keith	1	2	0
Banner	1	0	0	Keya Paha	0	1	0
Blaine	0	1	0	Kimball	1	1	1
Boone	1	4	0	Knox	1	5	0
Box Butte	1	2	0	Lancaster*	3	11	3
Boyd	0	3	0	Lincoln	1	5	1
Brown	0	1	0	Logan	0	1	0
Buffalo	3	5	2	Loup	0	1	0
Burt	0	5	0	Madison	4	4	1
Butler	0	8	0	McPherson	0	1	0
Cass*	1	10	0	Merrick	1	4	0
Ceder	2	3	0	Morrill	0	3	0
Chase	0	2	0	Nance	0	2	0
Cherry	0	2	0	Nemaha	1	6	0
Cheyenne	0	5	0	Nuckolls	1	3	0
Clay	0	7	0	Otoe	1	7	0
Colfax	0	4	0	Pawnee	0	2	0
Cuming	1	3	0	Perkins	0	1	0
Custer	0	9	0	Phelps	1	4	0
Dakota*	1	2	0	Pierce	0	5	0
Dawes	0	2	0	Platte	3	6	1
Dawson	0	7	1	Polk	0	4	0
Deuel	0	2	0	Red Willow	2	3	1
Dixon*	0	6	0	Richardson	1	2	0
Dodge	2	9	0	Rock	0	1	0
Douglas*	13	3	7	Saline	0	8	0
Dundy	1	1	0	Sarpy*	4	2	2
Fillmore	0	8	0	Saunders*	1	9	0
Franklin	0	3	0	Scotts Bluff	3	5	2
Frontier	0	3	0	Seward*	0	6	0
Furnas	0	6	0	Sheridan	1	2	1
Gage	1	8	0	Sherman	0	3	0
Garden	1	1	0	Sioux	0	1	0
Garfield	0	1	0	Stanton	1	1	0
Gosper	0	2	0	Thayer	0	8	0
Grant	0	1	0	Thomas	0	1	0
Greeley	0	4	0	Thurston	0	6	1
Hall	2	2	1	Valley	1	2	0
Hamilton	1	2	0	Washington*	2	4	0
Harlan	0	4	0	Wayne	1	3	0
Hayes	0	1	0	Webster	0	4	0
Hitchcock	0	4	0	Wheeler	0	2	0
Holt	1	5	0	York	1	5	0
Hooker	0	1	0				
Howard	0	4	0				
Jefferson	1	3	0				
				Nebraska	72	342	26

Source: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division, December 2005.

*Metropolitan boundaries are those defined by the Federal Office of Management and Budget on June 6, 2003. For further information about metropolitan and non-metropolitan definitions, see p. 1 and Appendix C.

Figure 4b - Number of EMS Basic Services by County, Nebraska 2005

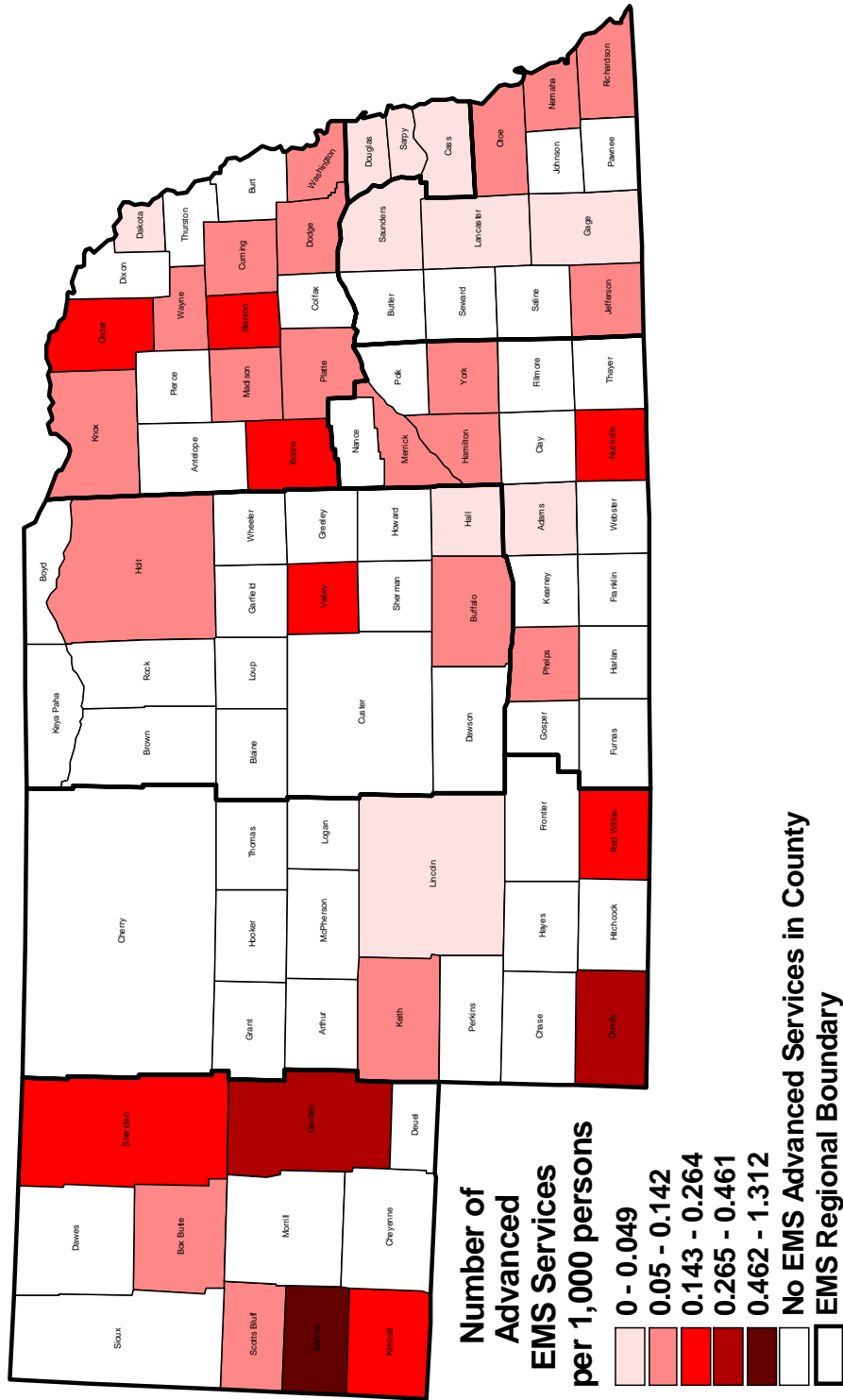


Source: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division. December 2005.

EMS regional boundaries established by Nebraska Health and Human Services System.

Cartography by Nebraska Center for Rural Health Research.

Figure 5a. - EMS Advanced Services per 1,000 Persons by County, Nebraska 2005

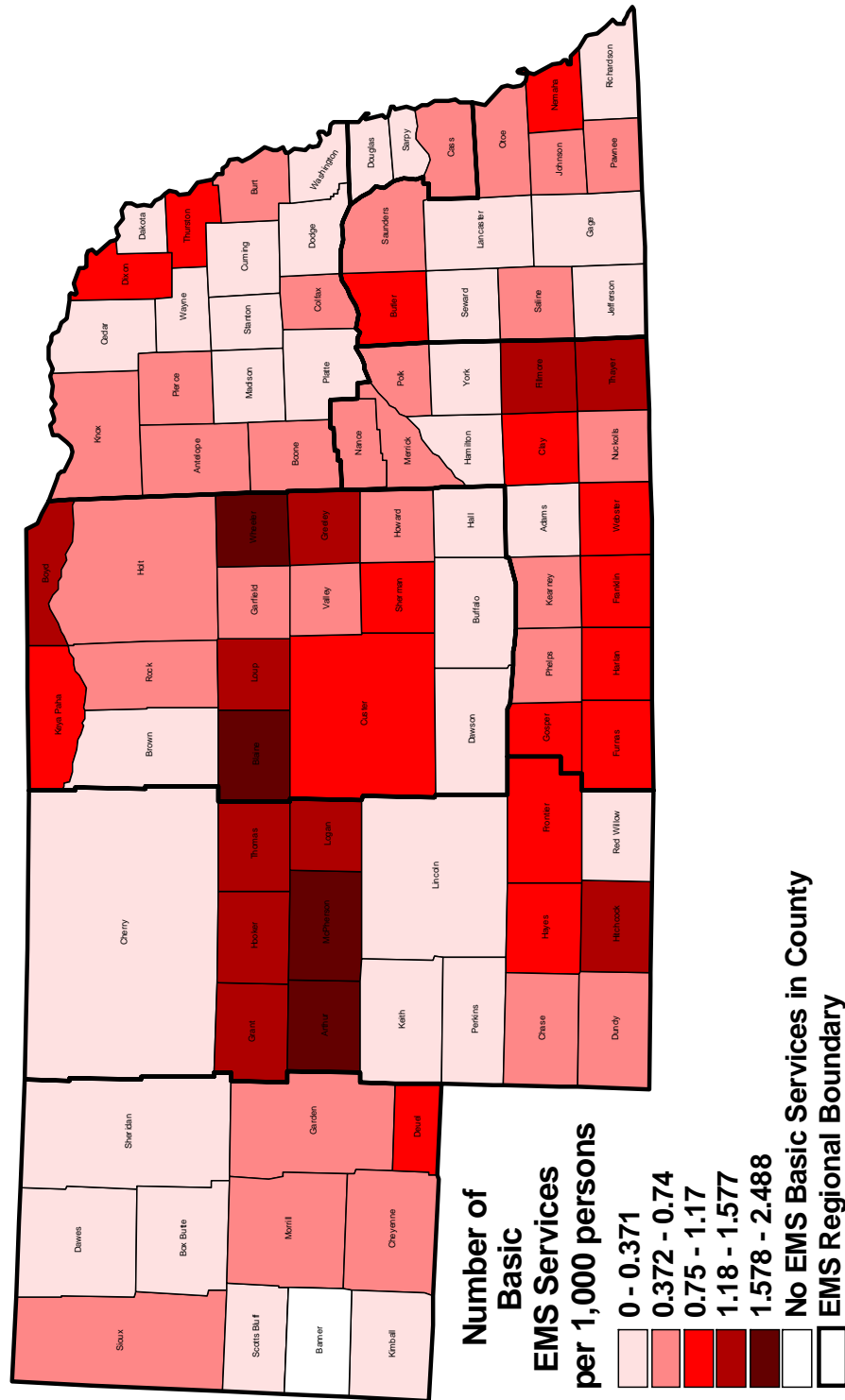


Sources: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division, December 2005; and U.S. Census Bureau. See <http://www.census.gov/popest/counties/files/CO-EST2004-ALLDATA.csv>.

EMS regional boundaries established by Nebraska Health and Human Services System.

Cartography by Nebraska Center for Rural Health Research.

Figure 5b. - EMS Basic Services per 1,000 Persons by County, Nebraska 2005

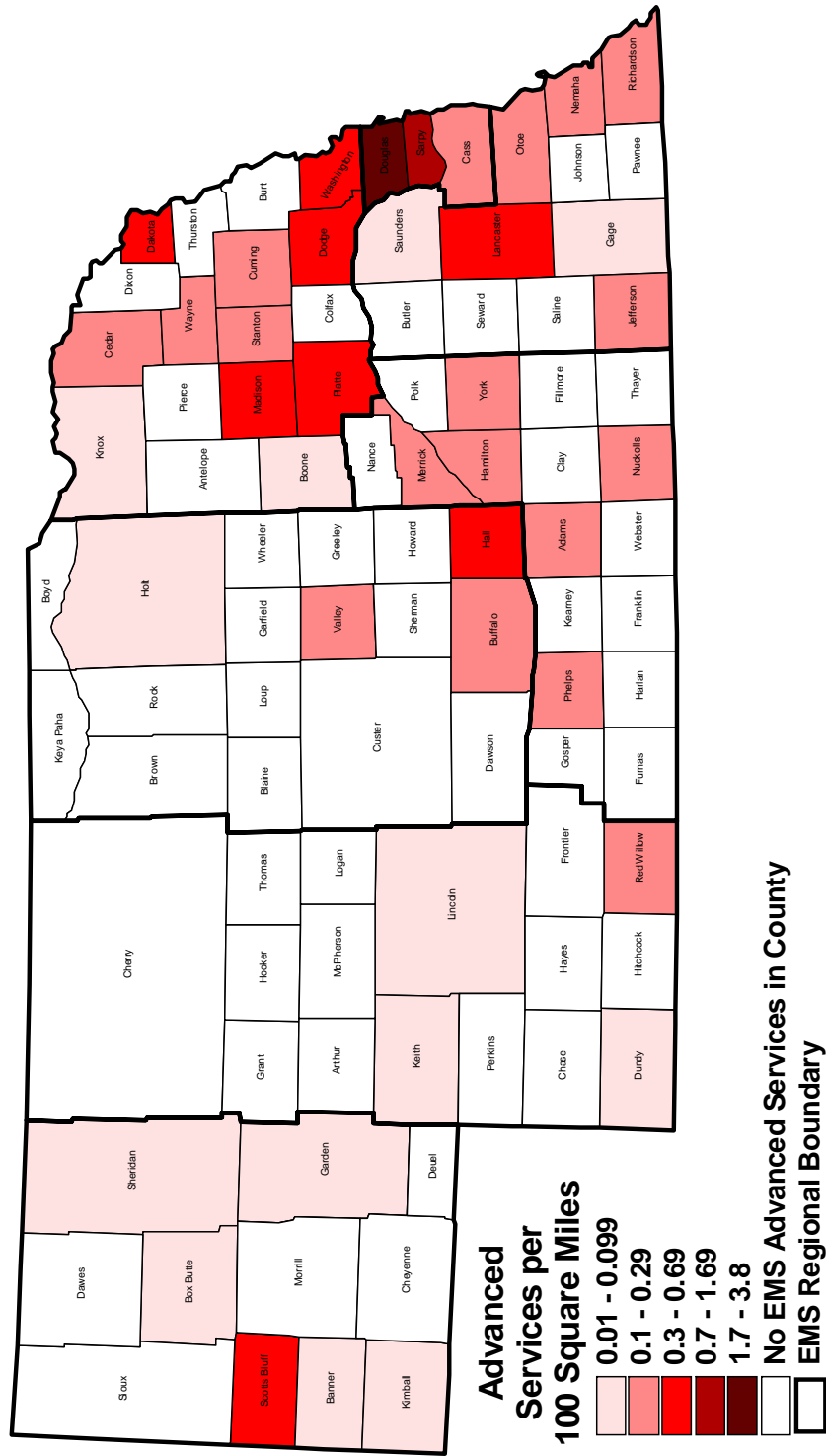


Sources: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division, December 2005; and U.S. Census Bureau. See <http://www.census.gov/popest/counties/files/CO-EST2004-ALLDATA.csv>.

EMS regional boundaries established by Nebraska Health and Human Services System.

Cartography by Nebraska Center for Rural Health Research.

Figure 6a - EMS Advanced Services per 100 Square Miles by County, Nebraska 2005

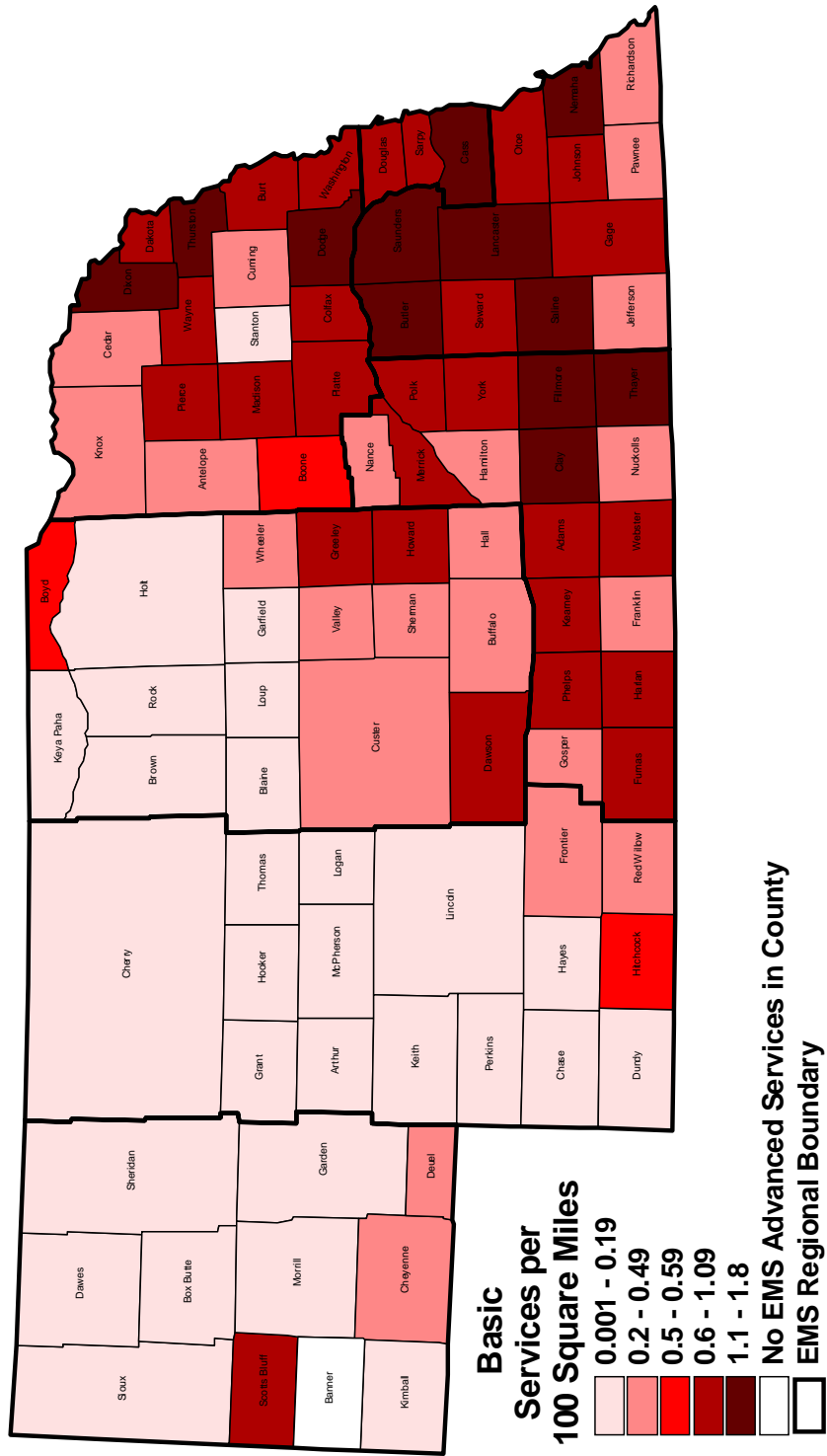


Source: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division. December 2005.

EMS regional boundaries established by Nebraska Health and Human Services System.

Cartography by Nebraska Center for Rural Health Research.

Figure 6b - EMS Basic Services per 100 Square Miles by County, Nebraska 2005



Source: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division, December 2005.

EMS regional boundaries established by Nebraska Health and Human Services System.

Cartography by Nebraska Center for Rural Health Research.

Figure 7a - EMS Advanced Services Normalized by Area and Population by EMS Region, Nebraska 2005

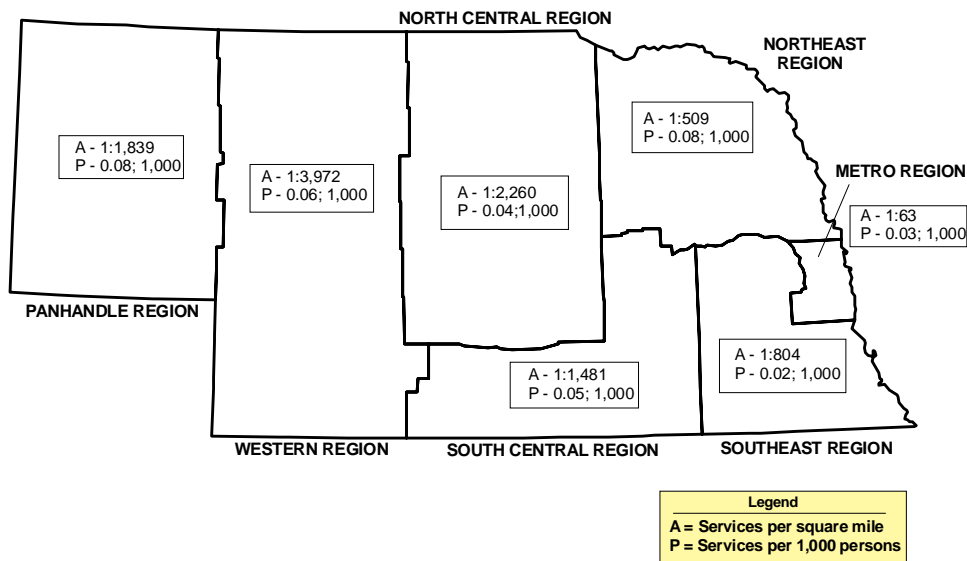
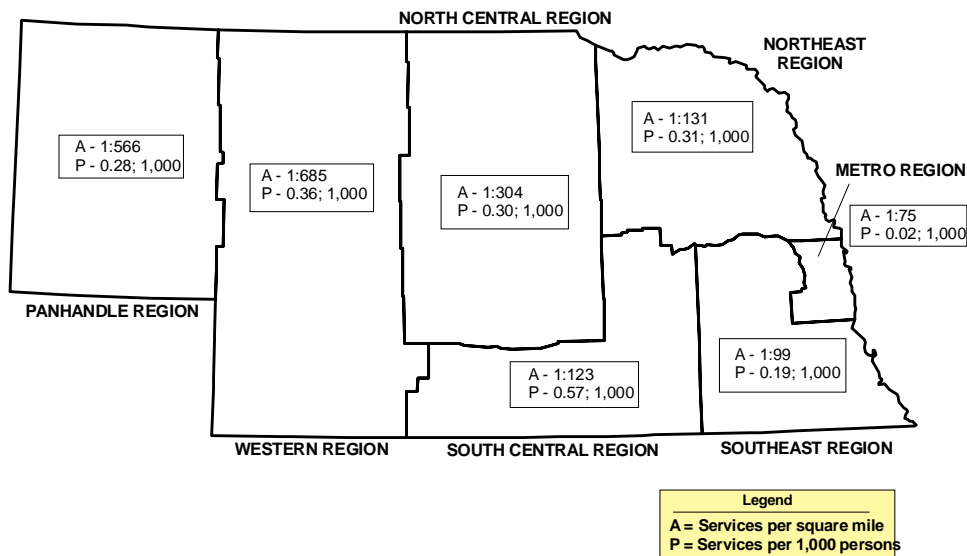


Figure 7b - EMS Basic Services Normalized by Area and Population by EMS Region, Nebraska 2005



Sources: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division. December 2005; and U.S. Census Bureau. See <http://www.census.gov/popest/counties/files/CO-EST2004-ALLDATA.csv>.

EMS regional boundaries established by Nebraska Health and Human Services System.

In the service entity to population ratio, the numerator used 2005 data and the denominator used 2004 census data.

See Table 1 for number of service entities by county. For population data, see http://www.census.gov/popest/counties/asrh/files/cc_est2004_alldata_31.csv.

Cartography by Nebraska Center for Rural Health Research.

EMS Provider Composition and Financial Compensation

The state of Nebraska issues four levels of licensure to out-of-hospital providers: First Responder (FR), Emergency Medical Technician (EMT), Emergency Medical Technician – Intermediate (EMT-I), and Emergency Medical Technician – Paramedic (EMT-P). EMTs at all levels are eligible to become an EMT Instructor assuming they meet the requirements established by the state. According to state EMS administrators, “Over 80% of the EMS providers licensed by the state are volunteer. EMTs practicing in rural/frontier areas are least likely to receive compensation for their services. Of the EMTs practicing in these areas, EMT-Is and EMT-Ps are most likely to receive compensation for their services; however, fewer EMTs with these advanced levels of education are practicing in these regions.”

Certification/License Requirements for Nebraska, December 2005

*Requirement for EMT Certification/License by type, based on education**

General Requirement for All Levels of Licensure

- Completed application for Nebraska license
- At least 18 years of age
- Current cardiopulmonary resuscitation certification (CPR) that includes adult, child, infant, and 2-person CPR
- Completed certificate of competency with the State of Nebraska

First Responder (FR)

- Proof of successful completion of, within the two years preceding the application, the Department of Transportation First Responder course
- Proof of successfully passing, with a score of 70% or above, the National Registry First Responder written examination
- First Responder certification from the National Registry of Emergency Medical Technicians

Emergency Medical Technician (EMT)

- Proof of successful completion of, within the two years preceding the application, the Department of Transportation Emergency Medical Technician course
- Proof of successfully passing, with a score of 70% or above, the National Registry EMT written examination
- EMT certification from the National Registry of Emergency Medical Technicians

Emergency Medical Technician - Intermediate (EMT-I)

- Proof of successful completion of, within the two years preceding the application, the Department of Transportation Emergency Medical Technician-Intermediate course
- Proof of successfully passing, with a score of 70% or above, the National Registry Emergency Medical Technician-Intermediate written examination
- EMT-Intermediate certification from the National Registry of Emergency Medical Technicians

Emergency Medical Technician - Paramedic (EMT-P)

- Proof of successful completion of, within the two years preceding the application, the Department of Transportation Emergency Medical Technician-Paramedic course
- Proof of successfully passing, with a score of 70% or above, the National Registry Emergency Medical Technician-Paramedic written examination
- EMT-Paramedic certification from the National Registry of Emergency Medical Technicians, which includes skill demonstration in patient assessment trauma, adult and pediatric ventilatory management, cardiac arrest, adult and pediatric intravenous therapy, IV bolus medications, and random basic skills

* Requirements will vary for certification/license based on reciprocity from another state.

EMT Instructor:

- At least 18 years of age
- Current certification at or above the level being taught
- Able to verify at least three years of EMS field work experience
- Successful completion of at least one EMT instructor course as outlined in section 13-012.01 of the Rules and Regulations Relating to: Certification of Out-of-Hospital Emergency Care Providers Title 172, NAC 13
- Successful demonstration of competency to perform standard skills, from the National Registry of Emergency Medical Technicians, at the level intended to be taught **OR** current certification from the National Registry of Emergency Medical Technicians

Source: Nebraska Health & Human Services System, Department of Regulation and Licensure, Public Health Assurance Section, EMS Program, Retrieved December 2005. (<http://www.hhs.state.ne.us/crl/rcs/ems/ems.htm>).

General Summary of Scope of Practice for EMS Providers

See Table 3 for a more detailed scope of practice for each EMT type as of December 2005.

First Responder (FR) - First Responders are trained to do the following:

- Respond safely to the emergency to which they were called
- Determine scene safety
- Determine the cause of the illness or injury, the number of patients, the condition of each patient, and to communicate such information to the arriving ambulance
- Maintain the patient's airway
- Ventilate the patient
- Perform cardiopulmonary resuscitation (CPR)
- Control bleeding
- Bandage wounds
- Stabilize fractures
- Assist in childbirth
- Manage respiratory problems
- Assist the patient with an altered mental status
- Manage environmental emergencies
- Use automatic or semi-automatic defibrillators
- Immobilize musculoskeletal injuries
- Implement shock management
- Extract patients from entrapment
- Assist other EMS providers in rendering care, lifting, moving, and loading patients into the ambulance
- Report verbally or in writing all observations and medical care provided to the patient to the transporting ambulance

Emergency Medical Technician (EMT) - EMTs are trained to do the following:

- Respond safely to the emergency to which they were called and provide efficient and immediate care
- Open and maintain the patient's airway
- Ventilate the patient
- Perform cardiopulmonary resuscitation (CPR)
- Use automatic or semi-automatic defibrillators
- Control bleeding
- Implement shock management
- Bandage wounds
- Immobilize painful, swollen, or deformed extremities
- Assist in childbirth
- Manage respiratory, cardiac, diabetic, allergic, behavioral, and environmental emergencies and suspected poisonings
- Assist patients with prescribed medications
- Administer oxygen, oral glucose, and activated charcoal
- Monitor intravenous solutions
- Utilize advanced airway management devices
- Utilize Federal Drug Administration approved home glucose monitoring devices
- Transport the patient

Emergency Medical Technician - Intermediate (EMT-I) - The EMT-I, while functioning with an Advanced Life Support service, may perform all the practices and procedures of an EMT as well as the following:

- Visualized endotracheal intubation
- Intravenous therapy
- Administer approved medications

Emergency Medical Technician - Paramedic (EMT-P) - The EMT-P, while functioning with an Advanced Life Support service, may perform all the practices and procedures of an EMT as well as the following:

- Endotracheal intubation
- Intravenous administration
- Intravenous drug administration
- Subcutaneous injections
- Intramuscular injections
- Venipuncture
- Oropharyngeal and tracheal suctioning
- Therapeutic electrical therapy
- Electrocardiogram interpretation
- Emergency cricothyrotomy
- Needle chest decompression
- Intraosseous infusion
- Gastric suctioning
- Oral drug administration
- Aerosolized drug administration

Source: Nebraska Health & Human Service System, Department of Regulation and Licensure, Public Health Assurance Section, EMS Program. Retrieved December 2005. (<http://www.hhs.state.ne.us/ems/emscert.htm>).

Table 3 - Current⁽¹⁾ Nebraska EMT Scope of Practice Comparison Chart, January 2006

	First Responder	EMT	EMT-I	EMT-P
Skills				
Transports patient		X	X	X
Determines MOI (mechanism of injury/illness)	X	X	X	X
Determines scene safety	X	X	X	X
Calls for additional resources, if necessary	X	X	X	X
Determines number of patients	X	X	X	X
Communication skills (dispatch, EMS, etc)	X	X	X	X
Extracts patients from entrapment	X	X	X	X
Assists other EMS providers with EMS care	X	X	X	X
Gives reports verbally or in writing to higher level health care provider	X	X	X	X
Airway				
Opens and maintains airway	X	X	X	X
Ventilates patient with bag valve mask	X #	X	X	X
Ventilates patient with flow restricted O ₂ powered device	X #	X	X	X
Ventilates patient with automatic transport ventilator			X	X
Ventilates patient with CPAP and BiPAP				X
O ₂ with non-rebreather mask or nasal cannula	X #	X	X	X
O ₂ with simple, partial rebreather, and venturi mask			X	X
Manages respiratory problems	X	X	X	X
Places oropharyngeal and nasopharyngeal airway	X* #	X	X	X
Oropharyngeal suctioning	X* #	X	X	X
Tracheal suctioning			X	X
Pulse oximetry		X* #	X	X
Advanced airway (combitube, lighted stylet, ET, and LMA)		X*	X	X
Endotracheal intubation and extubation			X	X
Rapid sequence intubations				X
Emergency cricothyrotomy				X
Non-visualized advanced airway devices				X
Assessment				
Determines level of consciousness	X	X	X	X
Controls hemorrhaging	X	X	X	X
Inspects and palpates for injuries		X	X	X
Manages altered mental status	X	X	X	X
Implements shock management techniques	X	X	X	X
Implements/treatment shock management techniques		X	X	X
Assesses and monitors vital signs	X	X	X	X
Takes history of present illness or injury		X	X	X
Takes past medical history		X	X	X
Percusses the chest			X	X
Auscultates breath sounds		X*	X	X
Auscultates heart tones			X	X
Auscultates bowel sounds				X
Uses ophthalmoscope or otoscope				X
Medical				
Assists in childbirth	X	X	X	X
Manages environmental emergencies	X	X	X	X
Manages diabetic emergencies		X	X	X
Manages allergic reactions with medications	X* #	X*	X	X
Manages behavioral emergencies		X	X	X
Manages altered mental status	X	X	X	X
Manages suspected poisonings		X	X	X
Utilizes home glucose monitoring devices		X*	X	X
Cardiac				
CPR certified	X	X	X	X
Uses automatic/semi-automatic defibrillators	X*	X*	X	X
Evaluates perfusion by assessing the skin		X	X	X
Manages cardiac emergencies	X* #	X*	X	X
Interprets electrocardiogram			X	X
Defibrillation (manual)			X	X
Transcutaneous pacing			X	X
Performs synchronized cardioversion			X	X

*If trained at this skill with Physician Medical Director (PMD).

#If with a licensed service trained at this skill with PMD approval.

†Lidocaine is the only medication infusion allowed.

Continued . . .

Table 3 (Continued) - Current⁽¹⁾ Nebraska EMT Scope of Practice Comparison Chart, January 2006

	First Responder	EMT	EMT-I	EMT-P
Treatments				
Bandages wounds	x	x	x	x
Manually stabilizes musculoskeletal injuries	x	x	x	x
Uses extremities immobilization devices	x* #	x	x	x
Uses spinal immobilization devices	x* #	x	x	x
Cannulates peripheral veins (start IV)		x*	x	x
Cannulates external jugular vein				x
Needle decompression			x	x
Places orogastric and nasogastric tubes			x	x
Places Intraosseous needle		x*	x	x
Infuses approved medications by IO			x	x
Bolus intravenous and intraosseous administration of approved medications			x	x
Intramuscular injections of approved medications			x	x
Subcutaneous injections of approved medications	x* #	x*	x	x
Oral medication administration of approved medications	x* #	x*	x	x
Sublingual administration of approved medications		x*	x	x
Intradermal medication administration of approved medications				x
Aerosolized medication administration of approved medications		x*	x	x
Medication administration absorbed through percutaneous and enteral routes				x
Venipuncture to obtain blood sample			x	x
Medication (with Medical Approval)				
Assists a patient with patient's medications (e.g., nitro, inhaler)		x		
Acetylsalicylic			x	x
Activated Charcoal		x	x	x
Adenosine			x	x
Albuterol		x*	x	x
Amiodarone			x	x
Aspirin	x* #	x*	x	x
Atropine			x	x
Benadryl/Diphenhydramine			x	x
Dexamethasone			x	x
Dextrose 50%			x	x
Diazepam			x	x
Epinephrine auto-injectors	x* #	x*	x	x
Epinephrine			x	x
Furosemide			x	x
Glucagon			x	x
Ipratropium			x	x
Isoetharine			x	x
Isotonic intravenous solutions		x*	x	x
Lidocaine 2%			x [†]	x
Metaproterenol			x	x
Methylprednisolone			x	x
Morphine			x	x
Naloxone			x	x
Nitroglycerin			x	x
Oxygen	x* #	x	x	x
Oral Glucose		x	x	x
Terbutaline			x	x
Triamcinolone			x	x
Vasopressin			x	x
Any medication with doctor orders				x

Source: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division, January 2005.

*If trained at this skill with Physician Medical Director (PMD).

#If with a licensed service trained at this skill with PMD approval.

[†]Lidocaine is the only medication infusion allowed.

(1) This current scope of practice is subject to change. Certain criteria listed above are currently under review. Information presented here is current as of January 2006.

Table 4 - Number of Active Licensed⁽¹⁾ EMS Providers in Nebraska, Practicing and Non-practicing, 2005

	<u>Number</u>	<u>Percent</u>
EMT - Paramedic	843	9.24
EMT - Intermediate	213	2.33
EMT	6,870	75.28
First Responder	992	10.87
EMT Instructor	208	2.28
Total	9,126	

Source: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division, December 2005.

Note: Total includes all licensed EMS providers with an active Nebraska license.
Total includes both providers with a NE mailing address and those with a mailing address outside Nebraska.
Providers may not be actively practicing in Nebraska.

(1) Address and employment changes that have not been reported to the Nebraska Health and Human Services System are not reflected in these data.

Table 5 - Number of Active Licensed⁽¹⁾ EMS Providers Currently Practicing in Nebraska, 2005

	<u>Number</u>	<u>Percent</u>
EMT - Paramedic	659	9.15
EMT - Intermediate	181	2.51
EMT - Basic	5,578	77.46
First Responder	613	8.51
EMT Instructor	170	2.36
Total	7,201	

Source: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division, December 2005.

Note: Total includes active licensed EMS providers who are currently practicing in Nebraska.
Total includes both providers with a Nebraska mailing address and those with a mailing address outside Nebraska.
Total includes only providers who had been identified as practicing (i.e., affiliated with an emergency medical service in Nebraska).
Providers included in these totals are only counted once but may practice at multiple services.

(1) Address and employment changes that have not been reported to the Nebraska Health and Human Services System are not reflected in these data.

Table 6 - Active Licensed⁽¹⁾ Practicing EMS Providers by County in Which They Practice, Nebraska 2005

County	EMT-P	EMT-I	EMT	FR	Instructor	County	EMT-P	EMT-I	EMT	FR	Instructor
Adams	4	5	79	6	1	Johnson	0	0	34	10	1
Antelope	1	0	68	15	1	Kearney	0	0	49	3	3
Arthur	0	2	9	0	0	Keith	1	0	40	7	1
Banner	1	1	10	0	0	Keya Paha	0	0	6	1	0
Blaine	0	0	11	0	0	Kimball	6	0	17	0	3
Boone	2	0	64	11	0	Knox	2	2	125	9	3
Box Butte	4	9	56	0	7	Lancaster*	96	2	423	6	18
Boyd	0	0	34	15	1	Lincoln	24	6	78	0	5
Brown	0	0	27	1	2	Logan	0	0	8	0	0
Buffalo	17	2	80	22	6	Loup	0	0	16	5	0
Burt	0	1	78	13	0	Madison	35	2	74	28	15
Butler	0	0	79	6	0	McPherson	0	0	15	2	0
Cass*	4	6	118	6	3	Merrick	0	1	57	17	1
Cedar	3	0	58	8	0	Morrill	0	0	23	0	0
Chase	1	0	31	0	1	Nance	0	0	34	9	0
Cherry	0	1	29	1	2	Nemaha	0	1	79	14	3
Cheyenne	2	1	41	1	1	Nuckolls	2	0	46	3	0
Clay	0	0	85	7	2	Otoe	1	0	79	4	2
Colfax	0	0	55	15	1	Pawnee	0	0	29	7	1
Cuming	0	4	49	2	1	Perkins	0	0	30	1	0
Custer	0	1	122	20	2	Phelps	7	1	51	8	4
Dakota*	0	1	46	12	0	Pierce	4	0	66	15	4
Dawes	0	0	44	6	0	Platte	36	4	114	15	5
Dawson	1	0	95	7	1	Polk	0	0	50	21	1
Deuel	0	0	30	2	0	Red Willow	13	0	39	7	4
Dixon*	0	1	75	9	2	Richardson	3	0	36	4	2
Dodge	29	9	128	7	9	Rock	0	0	18	1	0
Douglas*	285	82	600	0	30	Saline	2	0	138	4	0
Dundy	2	2	23	0	1	Sarpy *	43	19	182	13	10
Fillmore	2	0	79	12	2	Saunders*	7	2	135	2	3
Franklin	0	2	52	5	0	Scotts Bluff	36	5	82	5	6
Frontier	2	0	46	0	1	Seward*	0	0	70	0	0
Furnas	1	0	74	4	3	Sheridan	0	2	30	8	3
Gage	9	3	92	20	1	Sherman	0	0	23	9	0
Garden	1	0	19	0	0	Sioux	0	0	12	2	0
Garfield	0	0	14	0	1	Stanton	5	1	22	0	2
Gosper	0	1	14	0	1	Thayer	0	0	73	30	2
Grant	0	0	13	0	1	Thomas	0	0	14	0	0
Greeley	2	0	72	12	1	Thurston	0	1	49	11	0
Hall	35	1	64	2	12	Valley	3	1	37	4	1
Hamilton	4	1	7	18	0	Washington*	10	10	83	6	1
Harlan	2	0	48	1	2	Wayne	6	1	75	5	3
Hayes	0	0	13	0	0	Webster	0	1	27	4	1
Hitchcock	2	2	47	0	3	Wheeler	0	0	14	6	0
Holt	3	0	97	12	2	York	7	2	59	25	1
Hooker	0	0	15	4	0						
Howard	2	0	65	6	0						
Jefferson	6	1	46	3	1						
						Nebraska	776	203	5,862	622	214

Source: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division, December 2005.

Note: Numbers may include providers who practice in multiple services within a county and therefore may be counted more than once.

All providers tracked by the Nebraska Health and Human Services System possess an active license but are not necessarily practicing.

All providers presented in this table have been identified as practicing (i.e., affiliated with an emergency medical service in Nebraska).

Total includes both providers with a Nebraska mailing address and those with a mailing address outside Nebraska.

*Metropolitan boundaries are those defined by the Federal Office of Management and Budget on June 6, 2003. For further information about metropolitan and non-metropolitan definitions, see p. 1 and Appendix C.

(1) Address and employment changes that have not been reported to the Nebraska Health and Human Services System are not reflected in these data.

Table 7 - Active Licensed⁽¹⁾ Practicing EMS Providers by Type, Regions, and Substate Areas in Which They Practice, Nebraska 2005

	EMT - Paramedic		EMT - Intermediate		EMT		First Responder		EMT Instructor		State & Regional Population
	Number	Rate ⁽²⁾	Number	Rate ⁽²⁾	Number	Rate ⁽²⁾	Number	Rate ⁽²⁾	Number	Rate ⁽²⁾	
Nebraska	776	0.44	203	0.12	5,862	3.36	622	0.36	214	0.12	1,747,214
EMS Region⁽³⁾											
Panhandle	50	0.55	18	0.20	398	4.34	33	0.36	20	0.22	91,668
Western	45	0.39	13	0.11	450	3.89	22	0.19	19	0.16	115,762
North Central	63	0.36	5	0.03	795	4.56	123	0.71	29	0.17	174,212
Northeast	133	0.65	37	0.18	1,229	6.04	181	0.89	47	0.23	203,492
South Central	29	0.23	14	0.11	850	6.73	164	1.30	24	0.19	126,321
Southeast	124	0.32	9	0.02	1,240	3.16	80	0.20	32	0.08	392,003
Metro	332	0.52	107	0.17	900	1.40	19	0.03	43	0.07	643,756
Health Planning Region⁽⁴⁾											
Western	50	0.57	18	0.20	364	4.14	24	0.27	20	0.23	88,952
Southwest	82	0.77	15	0.14	663	6.25	58	0.55	37	0.35	106,041
Central	78	0.36	16	0.07	1,019	4.67	158	0.72	37	0.17	216,441
Northern	101	0.38	36	0.13	1,415	5.29	195	0.73	39	0.15	269,235
Southeast	137	0.30	17	0.04	1,619	3.60	174	0.39	41	0.09	450,080
Eastern	328	0.53	101	0.16	782	1.27	13	0.02	40	0.06	613,968
Non-metropolitan*	331	0.44	80	0.11	4,130	5.44	568	0.75	147	0.19	758,586
Metropolitan*	445	0.45	123	0.12	1,732	1.75	54	0.05	67	0.07	988,628

Sources: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division, December 2005. U.S. Census Bureau, census 2004 data for state of Nebraska See <http://www.census.gov/popest/counties/files/CO-EST2004-ALLDATA.csv> (Last Release Date: August 11, 2005).

Note: Address changes that have not been reported to the Nebraska Health and Human Services System are not reflected in these data. Numbers may include providers who practice in multiple services within a region and who therefore may be counted more than once.

(1) All providers tracked by the Nebraska Health and Human Services System possess an active license but are not necessarily practicing. All providers presented here are actively practicing.

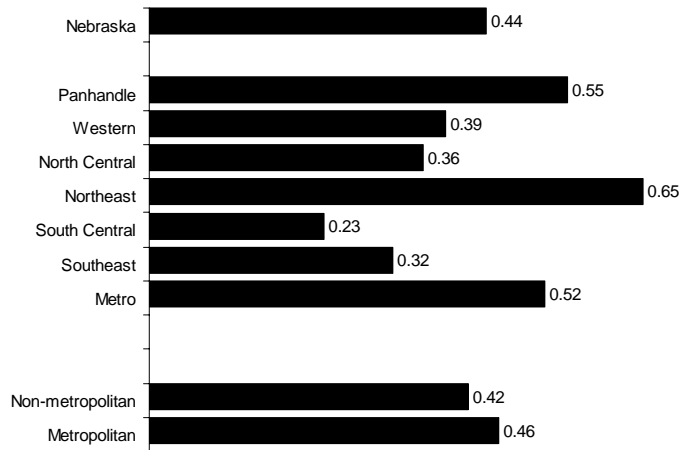
(2) Per 1,000 population. In the health provider to population ratio, the numerator used 2005 data and the denominator used 2004 Census data.

(3) Nebraska EMS Program Regions redefined by Nebraska Health and Human Services System, 2001.

(4) Nebraska Health Planning Regions defined by Nebraska Health and Human Services System, 2001.

*Metropolitan area boundaries and names are those defined by the Federal Office of Management and Budget on June 6, 2003. For further information about metropolitan and non-metropolitan definitions, see p. 1 and Appendix C.

Figure 8 - Practicing EMT-Paramedics to Population Ratio⁽¹⁾ by EMS Region, Nebraska 2005

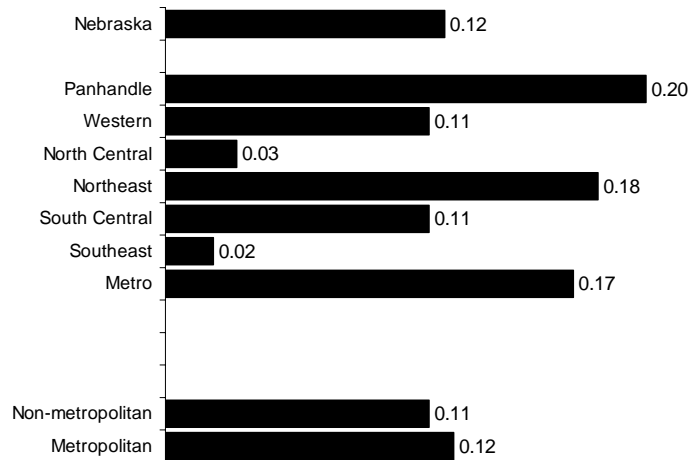


Sources: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division, December 2005; and U.S. Census Bureau. See <http://www.census.gov/popest/counties/files/CO-EST2004-ALLDATA.csv>.

Note: Numbers may include providers who practice in multiple services within a region and who therefore may be counted more than once. Nebraska EMS Program Regions redefined by Nebraska Health and Human Services System, 2001. Metropolitan boundaries are those defined by the Federal Office of Management and Budget on June 6, 2003. For further information about metropolitan and non-metropolitan definitions, see p. 1 and Appendix C.

(1) Per 1,000 population. In the health provider to population ratio, the numerator uses 2005 data and the denominator uses 2004 census data.

Figure 9 - Practicing EMT-Intermediates to Population Ratio⁽¹⁾ by EMS Region, Nebraska 2005

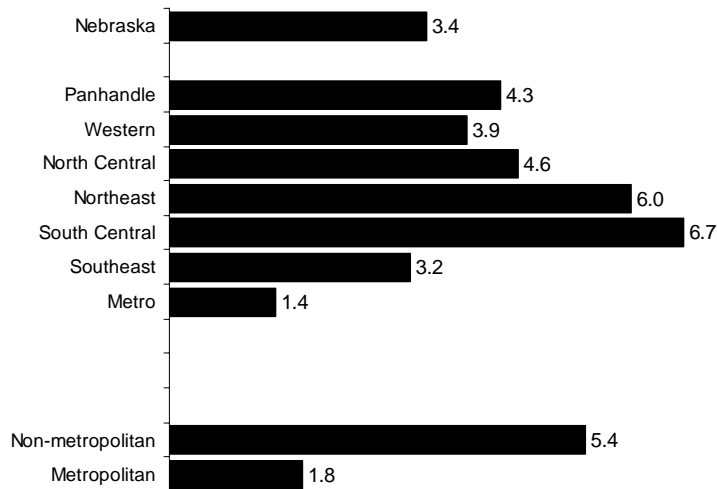


Sources: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division, December 2005; and U.S. Census Bureau. See <http://www.census.gov/popest/counties/files/CO-EST2004-ALLDATA.csv>.

Note: Numbers may include providers who practice in multiple services within a region and who therefore may be counted more than once. Nebraska EMS Program Regions redefined by Nebraska Health and Human Services System, 2001. Metropolitan boundaries are those defined by the Federal Office of Management and Budget on June 6, 2003. For further information about metropolitan and non-metropolitan definitions, see p. 1 and Appendix C.

(1) Per 1,000 population. In the health provider to population ratio, the numerator uses 2005 data and the denominator uses 2004 Census data.

Figure 10 - Practicing EMTs to Population Ratio⁽¹⁾ by EMS Region, Nebraska 2005

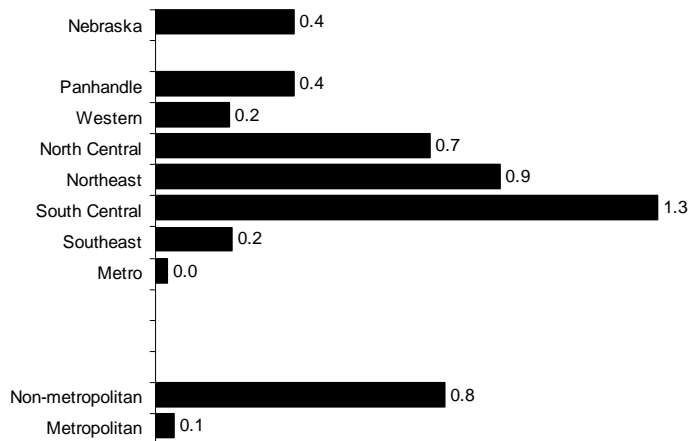


Sources: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division, December 2005; and U.S. Census Bureau. See <http://www.census.gov/popest/counties/files/CO-EST2004-ALLDATA.csv>.

Note: Numbers may include providers who practice in multiple services within a region and who therefore may be counted more than once. Nebraska EMS Program Regions redefined by Nebraska Health and Human Services System, 2001. Metropolitan boundaries are those defined by the Federal Office of Management and Budget on June 6, 2003. For further information about metropolitan and non-metropolitan definitions, see p. 1 and Appendix C.

(1) Per 1,000 population. In the health provider to population ratio, the numerator uses 2005 data and the denominator uses 2004 census data.

Figure 11 - Practicing First Responders to Population Ratio⁽¹⁾ by EMS Region, Nebraska 2005

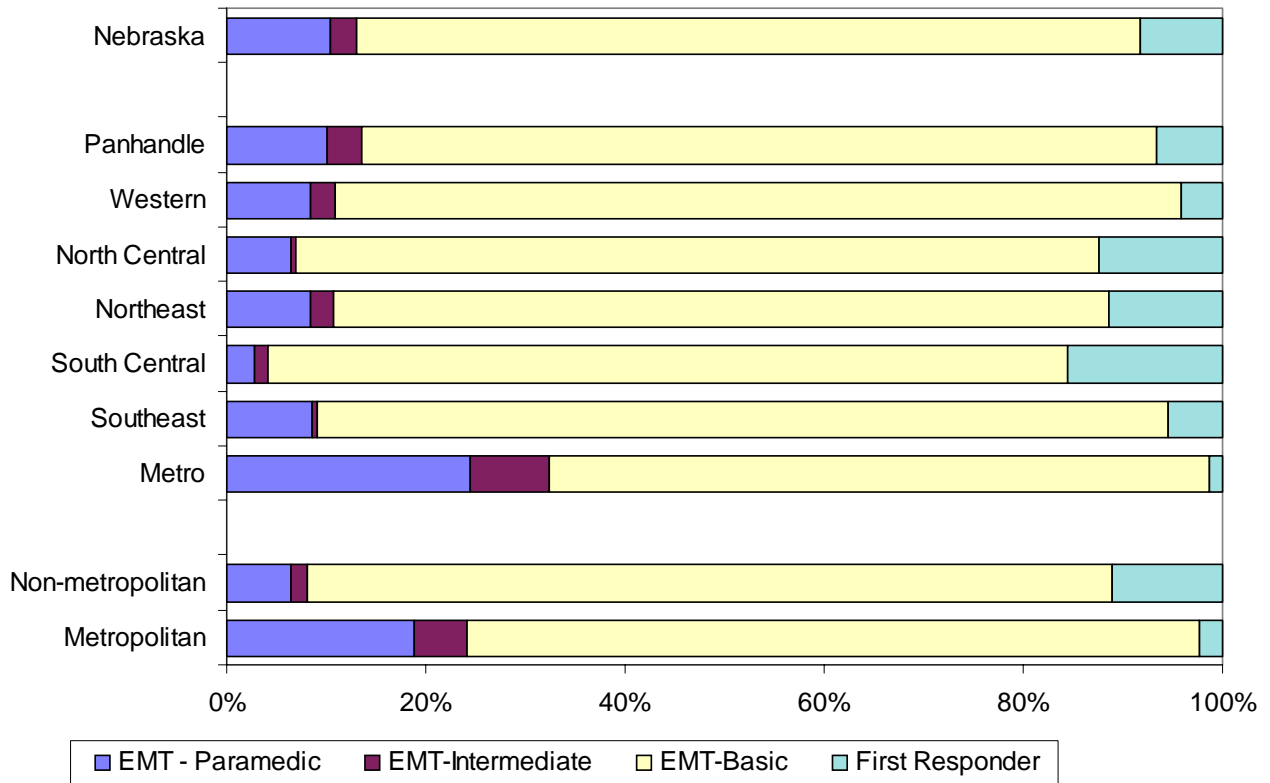


Sources: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division, December 2005; and U.S. Census Bureau. See <http://www.census.gov/popest/counties/files/CO-EST2004-ALLDATA.csv>.

Note: Numbers may include providers who practice in multiple services within a region and therefore may be counted more than once. Nebraska EMS Program Regions redefined by Nebraska Health and Human Services System, 2001. Metropolitan boundaries are those defined by the Federal Office of Management and Budget on June 6, 2003. For further information about metropolitan and non-metropolitan definitions, see p. 1 and Appendix C.

(1) Per 1,000 population. In the health provider to population ratio, the numerator uses 2005 data and the denominator uses 2004 census data.

Figure 12 - Practicing EMS Providers by License Type, Nebraska EMS Program Regions and Substate Areas, Nebraska 2005



Source: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division, December 2005.

Note: Numbers may include providers who practice in multiple services within a region and who therefore may be counted more than once.

Nebraska EMS Program Regions redefined by Nebraska Health and Human Services System, 2001.

Metropolitan boundaries are those defined by the Federal Office of Management and Budget on June 6, 2003. For further information about metropolitan and non-metropolitan definitions, see p. 1 and Appendix C.

Table 8 - Gender of Active Licensed⁽¹⁾ EMS Providers by License Type, Nebraska 2005

	Female		Male		Incomplete Records
	Number	Percent	Number	Percent	Number
EMT-Paramedic	166	20.39%	648	79.61%	29
EMT-Intermediate	39	19.31%	163	80.69%	11
EMT	2,054	33.96%	3,995	66.04%	821
First Responder	299	32.36%	625	67.64%	68
EMT Instructor	69	33.66%	136	66.34%	3

Source: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division, December 2005.

Note: All providers tracked by the Nebraska Health and Human Services System possess an active license but are not necessarily practicing.

Numbers include all EMS providers with an active Nebraska license in November 2005.

(1) Address changes that have not been reported to the Nebraska Health and Human Services System are not reflected in these data.

Table 9 - Age of Active Licensed⁽¹⁾ EMS Providers by License Type, Nebraska 2005

	18 to 24		25 to 44		45 to 64		65 or older		Not Available
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number
EMT-Paramedic	47	5.60%	614	73.10%	178	21.19%	1	0.12%	3
EMT-Intermediate	9	4.23%	151	70.89%	52	24.41%	1	0.47%	0
EMT	422	6.23%	3,570	52.68%	2,600	38.35%	187	2.74%	91
First Responder	46	4.74%	587	60.45%	324	33.37%	14	1.44%	21
EMT Instructor	0	0.00%	105	50.72%	100	48.31%	2	0.97%	1

Source: Nebraska Health and Human Services System, Department of Regulation and Licensure, Credentialing Division, December 2005.

Note: All providers tracked by the Nebraska Health and Human Services System possess an active license but are not necessarily practicing.

Numbers include all EMS providers with an active Nebraska license in November 2005.

(1) Address changes that have not been reported to the Nebraska Health and Human Services System are not reflected in these data.

Nebraska EMS Program Achievements

Among the States with the Highest Pass Rates for the National Registry of Emergency Medical Technicians in 2005

Nebraska's average passing percentage for all types of EMTs for January 1, 2005, to June 30, 2005, was above national averages across the board. Percentages by type were as follows: 85% for First Responders compared to 73% nationally, 79% for Nebraska basic EMTs compared to 69% nationally, 93% for Nebraska EMT-Is compared to 64% nationally, and 85% for EMT-Ps in Nebraska compared to 64% nationally. Nebraska's total average passing percentage for all types of EMTs was 81%.³

Development of the Nebraska Emergency Medical Services Children's (EMSC) Program

The Nebraska EMSC program was established to address the emergency health care needs unique to the pediatric population in Nebraska. This program has been active in education and training of EMS providers regarding the special needs of children and use of equipment required to treat this population.

The Nebraska EMSC program has worked closely with the Kiwanis Foundation to improve the quality of emergency health care for children in Nebraska. The Nebraska-Iowa Kiwanis District Foundation received the National EMSC Heros Award in 2005. Nebraska EMSC is also active in outreach programs and currently is working with Nebraska's schools to educate and train teachers in CPR and first aid.

First Statewide Critical Incident Stress Management (CISM) Program Supported by State Statutes

According to the CSIM provisions, the Nebraska CISM program was authorized by the Nebraska Unicameral under the provisions of the National Critical Incident Stress Management Act [LB 71-7101 to 71-7113]. The CISM program provides a system of support services for emergency responders and hospital and correctional personnel throughout the state. Specially trained team members provide stress education and prevention programs before and after stressful events occur, serve as a resource and referral network for emergency personnel, and are incorporated into the Nebraska State Emergency Operations Plan. The CISM program provides participants with tools to cope with the emotional and physical aftershocks of critical incidents. CISM provides immediate crisis intervention.⁴

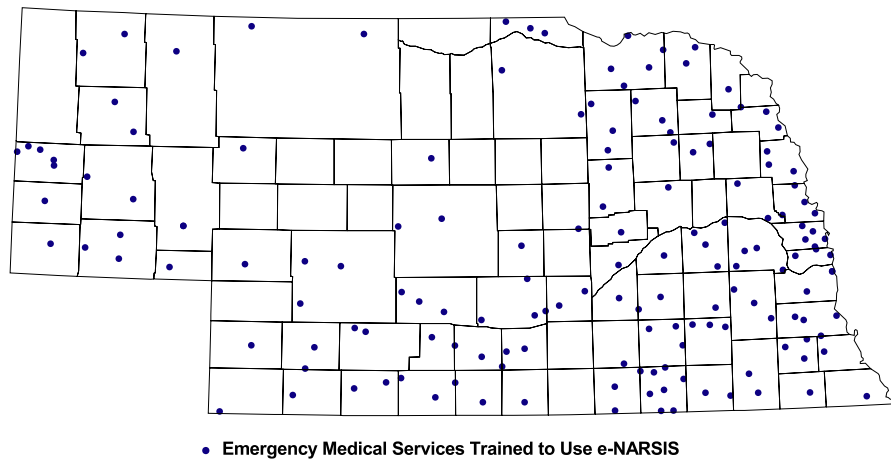
Successful Implementation of a Statewide Trauma System in March 2002

The process of developing the Statewide Trauma System began in 1994 with the approval of LB1223, followed by LB 626 in 1997, which led to development of the infrastructure, and LB191 in 2001, which established the funding source. The Statewide Trauma System is intended to make the delivery of trauma care cost-effective, reduce the incidence of inappropriate or inadequate trauma care, prevent unnecessary suffering, and reduce the personal and societal burden resulting from trauma. The Statewide Trauma System is divided into four regions, each with a regional committee.⁵ (See figure 13 for a map of Nebraska Trauma Regions and Trauma Center locations.)

Statewide Access to E-NARSIS Since November 2004

The electronic Nebraska Ambulance Rescue Service Information System (e-NARSIS) is an Internet-based program designed to assist out-of-hospital providers in patient care reporting and to serve as a medical, legal, and managerial database. Nebraska EMS Program Administrator, Dean Cole, stated, “e-NARSIS applications are functional and user-friendly, with data mining and analysis tools paramount to generating information from the data collected.” This system is currently available to all EMS services throughout the state. In December 2005, approximately 47% of the EMS services in Nebraska had been trained to use e-NARSIS. This system is expected to be utilized statewide by the year 2010.⁶ (See figure 14 for communities with services currently trained to use e-NARSIS.)

Figure 14 - EMS Services Currently Trained to Use e-NARSIS, December 2005



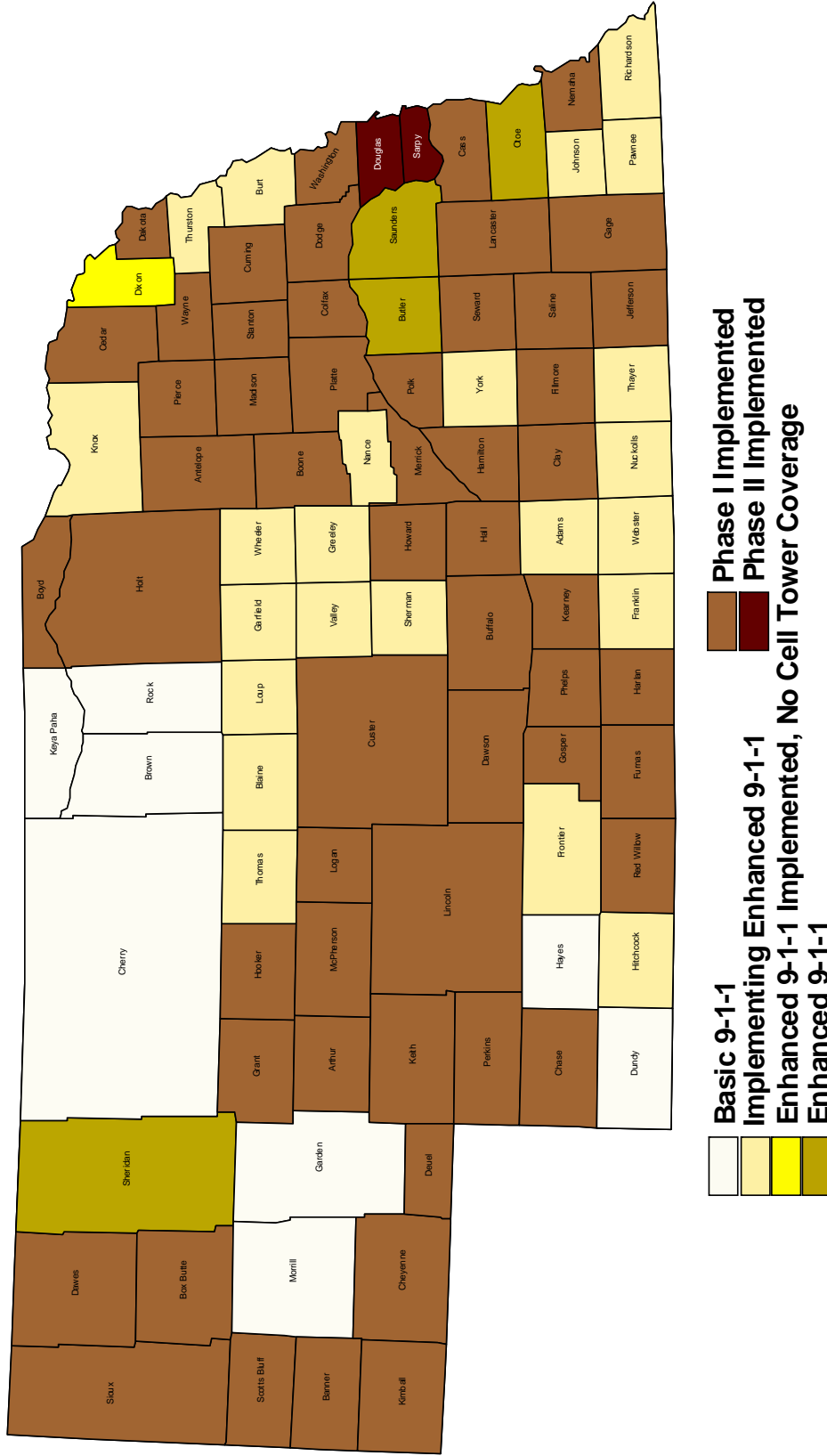
Source: Nebraska Health and Human Services System, Department of Regulation and Licensure, Public Health Assurance Section, EMS Program.

Cartography by Nebraska Center for Rural Health Research.

Statewide Coverage of Emergency 9-1-1

Statewide, emergency services can be contacted by dialing 9-1-1. The type of coverage varies across the state. Emergency 9-1-1 is available as either Basic 9-1-1 or Enhanced 9-1-1, both landline systems. Emergency 9-1-1 is also accessible to wireless users in certain areas of Nebraska. Implementation of this coverage system is currently in various phases throughout the state.⁷ For a more detailed description of phases of Emergency 9-1-1 coverage, see Appendix A. (See figure 15 for level of 9-1-1 coverage in Nebraska.)

Figure 15 - Status of Emergency 9-1-1, Nebraska 2005



Source: Nebraska Public Service Commission, 2005. <http://www.psc.state.ne.us>.

Cartography by Nebraska Center for Rural Health Research.

Potential Barriers for EMS in Nebraska

Declining Rural Population

Areas with declining populations have fewer potential volunteers, creating more difficulty recruiting and retaining EMS providers. While populations in metropolitan counties continue to grow, the total population of many rural counties has declined steadily. Figure 16 illustrates the decline in population from 2000 to 2004 for 70 of Nebraska's 93 counties. As cited by Cantrell, given the [out] migration trends in rural America, Walser and Anderlik conclude that "depopulating counties—especially those in the Great Plains—are losing an important demographic battle on two fronts. First, they have a disproportionate number of elderly people. Second, they are rapidly losing well-educated people of working age."⁸

Active Leadership

State EMS administrators have stressed the importance of active leadership to the success of both EMS services and EMS providers. A study conducted by the Nebraska Center for Rural Health Research (NCRHR) in 2004 assessed the experience of past and present workers in EMS in Nebraska and found "lack of the leadership" to be within the top five reasons for leaving EMS for both current members (ranked 5th) and retirees (ranked 4th). The same study found "supervisor's leadership ability" to be ranked 6th of 23 sources of dissatisfaction in EMS-related jobs/duties among current workers.⁹ The EMS program is beginning to address this potential barrier by offering a four-day specialized leadership training program in partnership with Central Community College to develop EMS leaders for Nebraska.

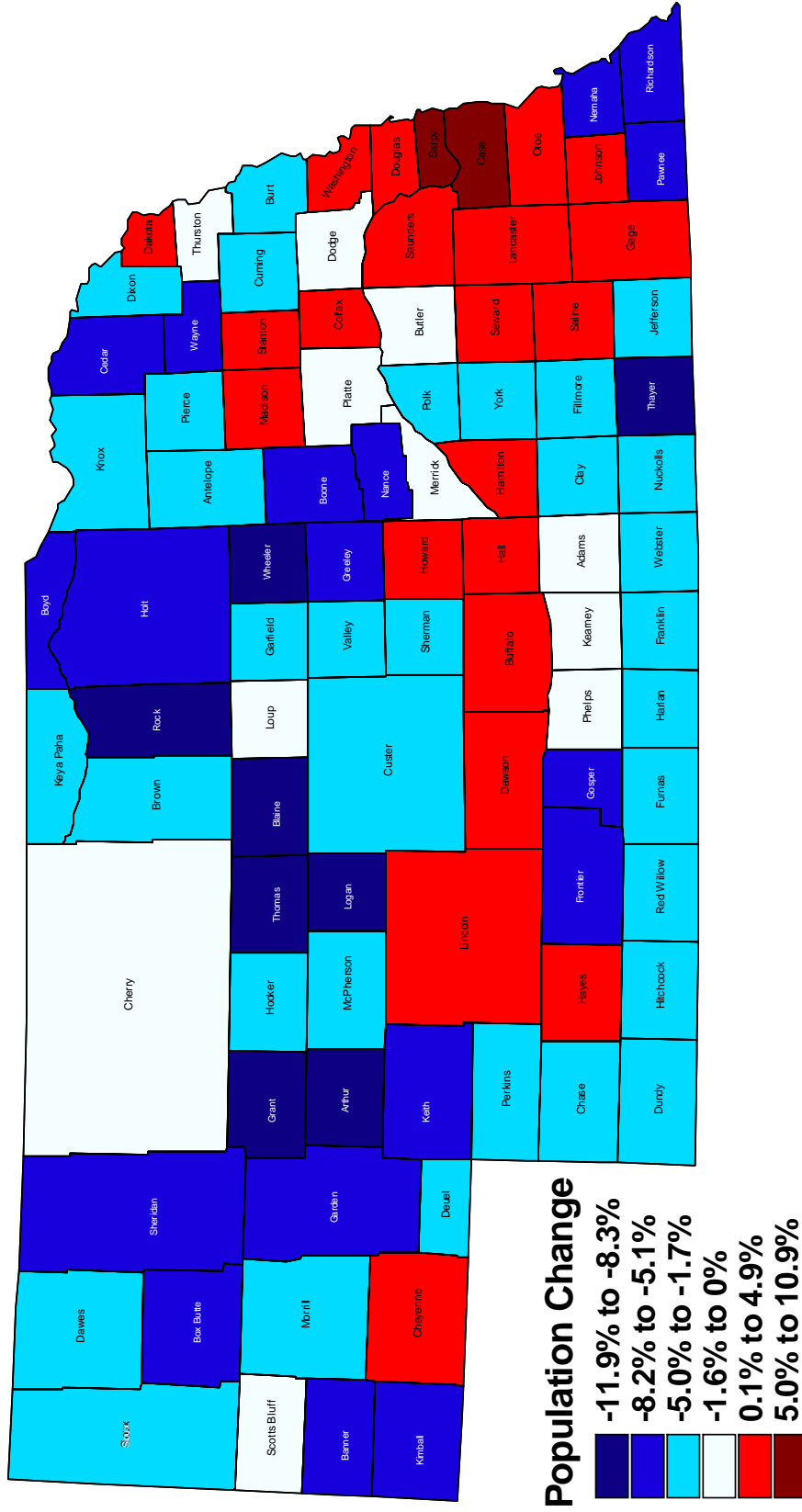
Lack of Adequate Funding

Most EMS services throughout Nebraska employ a variety of methods for financing their systems. Dominant sources of revenue are fees and government subsidies.¹⁰ The 2004 NCRHR study, mentioned above, found that the "amount of local dollars for EMS" was the number one source of dissatisfaction in EMS-related jobs/duties among current members.⁹ The State EMS Rural Needs Survey released by the National Association of State EMS Directors (NASEMSD) indicated that " 'financing' remained a prominently identified need in both the 2000 and 2004 surveys."¹¹ Lack of adequate funding can affect such things as quality of equipment, level of professional training, and overall quality of emergency health care available to that community.

Recruitment and Retention of EMS Providers

"Personnel 'recruitment/retention' remains the single most significant issue or need in the provision of rural EMS," according to both the 2000 and 2004 State EMS Rural Needs Survey released by NASEMSD.¹¹ As discussed in the Rural and Frontier EMS Agenda for the Future, "Volunteer EMS providers have been increasingly challenged in their staff recruitment and retention efforts. As public and professional expectations of EMS increase, training and licensure have become more complex and difficult to support on a volunteer basis."¹² The EMS Program is beginning to address this potential barrier by developing a recruitment and retention training program to assist volunteer ambulance services with recruitment and retention.

Figure 16 - Population Change by County, Nebraska 2000 to 2004



Source: Population Division, U.S. Census Bureau. Table CO-EST2002-01-31-Nebraska Population Estimates: July 1, 2001, to July 1, 2002; 2004 population estimates obtained from <http://www.census.gov/popest/counties/files/CO-EST2004-ALLDATA.csv>.

Cartography by Nebraska Center for Rural Health Research.

“ALS Paradox”¹²

An important issue in rural Nebraska is the availability of EMT-Is and EMT-Ps. According to McGinnis,

As hospitals close and outpatient services are less available to offer sophisticated resuscitation care, dependence for such intervention falls upon local EMS. Paradoxically, ALS levels of EMS care are less likely to be available in the rural/frontier setting. This ‘rural ALS paradox’ results because comprehensive ALS services are difficult to establish and maintain in systems that experience insufficient call volume to meet high fixed costs and to enable advanced providers to be paid and retain their skills.¹²

The further a patient is from an emergency medicine facility, the more that patient may benefit from ALS levels of local EMS care when life saving services are required. This paradox impacts the level and quality of care of those living in more remote regions of Nebraska or those in areas heavily saturated by Basic services rather than Advanced services.

Inter-facility Transfer by EMS

According to one state EMS administrator, some EMS transport services are currently operating at maximum capacity and exhausting resources with emergency runs. Therefore, additional services such as inter-facility transport are not readily available to some area health care facilities.¹³

Culture and Language Barriers Between EMS Providers and Service Populations

EMS providers servicing communities with increasing immigrant populations are more likely to face communication barriers that hinder proper treatment and impact the quality of care. According to McGinnis, “Rural/frontier areas are experiencing increases in minority populations, which increase need for addressing cultural competency in the provision of EMS and in communicating effectively on the appropriate use of EMS and other community health services.”¹² Race and ethnicity of EMS providers in Nebraska is currently not tracked at the state level.

For additional information on Nebraska EMS

Nebraska Health & Human Services System, Department of Regulation and Licensure, Public Health Assurance Section, EMS Program. <http://www.hhss.ne.gov/ems/emsindex.htm>.

For additional information on EMS Nationwide

McGinnis, Kevin (2004). *Rural and Frontier Emergency Medical Services – Agenda for the Future*. National Rural Health Association. <http://www.nrharural.org/groups/sub/EMS.html>.

National Association of State EMS Directors

<http://www.nasemsd.org/index.php?option=content&task=view&id=36&Itemid=64>.

National Highway Traffic Safety Administration. *The National EMS Scope of Practice Model*. Washington, DC: U.S. Department of Transportation/National Highway Traffic Safety Administration, 2005.

<http://www.soundrock.com/sop/index.html>.

National Registry of Emergency Medical Technicians http://www.nremt.org/about/ems_learn.asp.

Appendix: Detailed Description of Phases of Emergency 9-1-1 Coverage

Basic 9-1-1: A landline service that provides the 9-1-1 center with at least the voice of the caller and may provide the telephone number.

Enhanced 9-1-1: A sophisticated landline system that provides the 9-1-1 center with the address and name of the caller then routes the 9-1-1 call based on the address of the caller.

Phase I: A system available to wireless users that provides the 9-1-1 center the call back number of the wireless caller dialing 9-1-1 as well as the address of the cell tower and the wireless carrier.

Phase II: A system available to wireless users that provides the Phase I information as default, followed by the latitude and longitude of the 9-1-1 caller within a set distance.

Source: Nebraska Public Service Commission, December 2005

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