

Arkansas Critical Access Hospital Evaluation Efforts: EMS Needs Assessment Survey Results

Introduction

In an effort to understand the issues facing Arkansas' EMS services, the Arkansas Department of Health's (ADH) Office of Rural Health and Primary Care – along with the Office of Emergency Medical Services and Trauma Systems – collaborated to survey all EMS license-holders (approximately 200) in Arkansas.

Survey Administration

A nine-page, forty-one question survey instrument was designed to determine the current needs of EMS service providers in the following areas: equipment and supplies, staffing/personnel, grant assistance, emergency preparedness, and priority needs. A copy of the survey is included in Appendix A and frequency tabulations for each question in the survey are found in Appendix B.

The survey was designed in part from content based on an existing survey developed by the University of North Dakota's Center for Rural Health. Additional content was provided by ADH's Offices of Rural Health and Primary Care, Emergency Medical Services and Trauma Systems, and a representative of ADH's Bioterrorism team.

Surveys were mailed to each EMS license-holder on March 5, 2004. Surveys were required to be completed by March 26, 2004. A postage-paid envelope was provided for EMS license-holders to return the survey.

General Findings

Equipment and Supply Needs

Directions: Based on your service assets and current condition of your equipment, please rate the following items as to whether they adequately meet the needs of your service. Please use the following response categories: 1=Does not meet needs at all, 2=Somewhat meets needs, 3=Mostly meets needs, 4=Adequately meets needs, 5=Fully meets needs.

In assessing the equipment needs of EMS services and determining areas of need, it is important to compare the percentages of services whose needs are fully or adequately met by that type of equipment versus the percentages of services whose needs are somewhat met or not met at all by that same type of equipment. Therefore, “Fully Meets Needs” and “Adequately Meets Needs” response categories were combined into one category while “Somewhat Meets Needs” and “Does Not Meet Needs at All” were combined into another category for comparison purposes. It is also important to note the percentages of services who indicated that the equipment they were asked to rate is “not applicable”, as this may indicate an equipment need as well.

Table 1
Equipment and Supply Needs*

	Not applicable %	Somewhat Meets Needs or Does Not Meet Needs at All %	Mostly Meets Needs %	Fully Meets Needs or Adequately Meets Needs %
1. Facilities (meetings, etc.)	3	24	14	60
2. Garages	5	27	17	52
3. Ambulances	5	4	21	69
4. Stretchers	3	7	9	80
5. Portable oxygen unit	0	1	7	92
6. Non-disposable airway devices	11	0	9	80
7. Personal protection devices	0	7	21	71
8. Radio equipment	2	14	23	62

	Not applicable %	Somewhat Meets Needs or Does Not Meet Needs at All %	Mostly Meets Needs %	Fully Meets Needs or Adequately Meets Needs %
9. Cellular telephones	19	16	16	50
10. Training materials	1	17	25	57
11. Defibrillator	3	2	9	87
12. Pediatric equipment	1	12	21	65

*Percentage in table may sum up to more than 100% due to rounding.

Using this qualitative and quantitative approach to analyze and interpret the results, each of the different types of equipment fell into two distinct tiers: Most Frequently-Mentioned Needs and Least Frequently-Mentioned Needs.

Most Frequently-Mentioned Needs

- Garages - **52%** reported equipment “fully or adequately met needs” while **27%** reported equipment “somewhat met needs or needs not met at all”.

- Facilities - **60%** reported equipment “fully or adequately met needs” while **24%** reported equipment “somewhat met needs or needs not met at all”.

- Cellular Telephones - **50%** reported equipment “fully or adequately met needs” while **16%** reported equipment “somewhat met needs or needs not met at all”. Nineteen percent (19%) indicated that cellular telephones weren’t applicable, which likely means that these services answering the survey question this way do not currently possess these pieces of communication equipment.

- Training materials - **57%** reported equipment “fully or adequately met needs” while **17%** reported equipment “somewhat met needs or needs not met at all”.

- Radio equipment - **62%** reported equipment “fully or adequately met needs” while **14%** reported equipment “somewhat met needs or needs not met at all”.

- Pediatric equipment - **65%** reported equipment “fully or adequately met needs” while **12%** reported equipment “somewhat met needs or needs not met at all”.

Least Frequently-Mentioned Needs

- Portable oxygen units - 92% reported equipment “fully or adequately met needs” while 1% reported equipment “somewhat met needs or needs not met at all”.
- Defibrillator - 87% reported equipment “fully or adequately met needs” while 2% reported equipment “somewhat met needs or needs not met at all”.
- Stretchers - 80% reported equipment “fully or adequately met needs” while 7% reported equipment “somewhat met needs or needs not met at all”.
- Non-disposable airway devices - 80% reported equipment “fully or adequately met needs” while 0% reported equipment “somewhat met needs or needs not met at all”.
- Personal protection devices - 71% reported equipment “fully or adequately met needs” while 7% reported equipment “somewhat met needs or needs not met at all”.
- Ambulances - 69% reported equipment “fully or adequately met needs” while 4% reported equipment “somewhat met needs or needs not met at all”.

Billing

Regarding billing activities, over three-quarters of EMS services (76%) reported that they bill patients directly, while a small number (9%) said that they contract billing to an outside organization. More than three in four (77%) EMS services use computerized billing, and nine in ten (90%) services have Internet access.

Staffing/Personnel Needs

Questions were included in the survey to measure EMS services’ perceptions about their ability to recruit and retain staff. Forty-two percent (42%) of EMS services reported that it was “very or fairly difficult” for them to recruit health care providers. Half as many EMS providers (21%) reported that it was “very or fairly difficult” for them to retain health care providers. These findings seem to indicate that, as a whole, recruiting health care providers is much more difficult than retaining them once they are employed.

Barriers to retention

*In your opinion, to what extent do the following issues act as barriers to **retention** of local individuals into the local EMS system? Please use the following response categories: 1=Major Barrier, 2=Somewhat of a Barrier, 3=Not a Barrier.*

EMS services were asked about barriers of retention of individuals into the local EMS system. Table 2 on the next page highlights the results of analyses of these questions:

Table 2
Barriers to retention of individuals in the local EMS system*

	Major barrier %	Somewhat of a barrier %	Not a Barrier %
18. Time away from family	20	55	26
19. Long hours	19	54	27
20. Training requirements	6	48	46
21. Stress of EMS work	13	62	26
22. Inadequate or low pay	40	37	23
23. Poor retention effort	9	46	44
24. Physical demands	3	49	48
25. Health hazards	1	49	50
26. No interest in EMS	15	32	53
27. Medical liability	3	37	61

*Percentage in table may sum up to more than 100% due to rounding.

The most frequently mentioned areas identified as “major barriers” to retention of local individuals into the local EMS system were inadequate or low pay (40%), time away from family (20%), and long hours (19%). It is interesting to note that while only 13% of respondents answered that “stress of EMS work” was a major barrier to retention, 62% identified this as “somewhat of a barrier” to retention.

Grant Assistance Needs

Grants can be an important source of funding for expenditures on capital equipment, continuing education, and other EMS needs. Questions were included on the survey to ascertain the degree to which Arkansas EMS services utilize this avenue to maintain or improve their level of service.

Excluding the EMS Revolving fund, more than six in ten respondents (62%) to the survey indicated that they do not actively seek out and apply for grant assistance. Also, excluding the EMS Revolving fund, almost half (49%) of EMS services responding to the survey have never applied for grant assistance. Finally, more than half of the respondents (54%) reported that no member of their current staff has experience applying for grant assistance.

Emergency Preparedness

Questions were included on the survey to determine the degree to which Arkansas' EMS services are prepared to deal with various areas associated with a potential chemical or biological terrorist attack. For each of five different types of emergencies, services were asked to indicate whether or not a member of their service had received training to respond to the type of emergency, and also whether or not the service had a standard operating guide or procedure for each emergency.

Nearly all (91%) of respondents to the survey said they had received training to respond to hazardous materials. Almost three-quarters of respondents (74%) had received training for responding to bioterrorism/weapons of mass destruction. Fewer percentages of respondents reported that they had received training to respond to radioactive materials (59%) or explosions (55%). Finally, only one-quarter (25%) reported that they had received training for mass immunizations.

Four in five respondents (80%) said they had a standard operating guide or procedure for hazardous materials. Fewer percentages of respondents reported that they had a standard operating guide or procedure for emergencies related to bioterrorism/weapons of mass destruction (51%), radioactive materials (47%) or explosions (43%). Finally, just over one in five (21%) respondents had a standard operating guide or procedure for mass immunizations.

Priority Needs

In an effort to identify the priority needs of EMS services as a whole, services were provided a list of ten different topic areas and asked to rank their service's top 5 priority needs or concerns, with the highest priority being one and the fifth-highest priority being ranked 5. Respondents were only asked to rank 5 of the topic areas which meant that five of the ten items would be ranked while other five would not receive a rank.

If an item wasn't given a rank, it was assigned a value of "8" which is the midpoint between the range of values 6-10. When a mean analysis is performed on the ten items, this allows one to easily see which items were more/less important to the respondents. What this essentially means is that areas that have an average rank of 5 or less were ranked often and highly by respondents. Areas which have an average rank of 6 or greater were ranked less often and less highly by respondents. This analysis on the next page shows that the top 5 concerns among EMS services are, in order of importance:

Q#	Mean	Area
Q33D	3.7394958	Q33D - Financial needs
Q33E	4.4369748	Q33E - Recruiting and retention of EMS personnel
Q33A	4.4621849	Q33A - Training and upgrading EMS personnel
Q33C	4.7647059	Q33C - Equipment needs
Q33G	5.6806723	Q33G - Continuing Education for EMS personnel

Other Needs

An open-ended question was added to the survey to allow EMS services the opportunity to provide their feedback about other needs that were not measured in the survey.

Approximately 25-30% of the 119 returned surveys contained additional comments in this section. The most frequently mentioned topic under “other needs” was financial/reimbursement needs, mainly due to declining reimbursement rates from Medicare. Other needs mentioned nearly equally as often included the need for additional, trained staff (staffing/personnel needs), and equipment needs of various types.

Another area that some EMS services identified as a problem was diversion to other hospitals. Although not mentioned as frequently, it was the next most mentioned topic behind reimbursement, staffing, or equipment needs. Finally, other areas receiving a few mentions included the need for grants/technical assistance, and suggestions to lessen bureaucracy by improving state EMS regulations.

Manpower Statistics and Demographics

Most EMS services responding to the survey were Paramedic Life Support Services (68%), followed by I-B services (17%). Over four in ten (44%) of the respondents to the survey indicated their service was classified as a “Private” service.

In regards to the question about number of health care providers, many respondents didn’t answer the correctly by providing numeric values for each type of health care providers. Although mean data for each of the types of health care providers is included in Appendix B, data for this question will not be included in this section in the report.

The primary source of funding for most EMS services is Medicare/Medicaid (57%), followed by city/county funding (17%), and patient billing (15%).

Regarding radio communication capabilities, over four in five EMS services (83%) indicated they had capabilities to communicate on the VHF high (150-174 MHz) frequency. Nearly one in five (18%) could communicate via the 800 MHz frequency, while another 18% could communicate on the UHF frequency (450-510 MHz). Fewer EMS services (11%) indicated they had the ability to communicate on the VHF low frequency (36-50 MHz).

Over half (52%) of the EMS services responding to the survey reported that the average age of their radio equipment was 6 to 10 years old. A sizeable percentage (43%) however reported that

the average age of their radio equipment was 5 years old or less. Only five percent said the average age of their radio equipment was 11 years or more.

Almost all (93%) EMS services said they can communicate with hospitals. More than four in five respondents to the survey said they could communicate with city and county police (82% each), followed next most often by the fire department (81%). Interestingly, few EMS services have communication capabilities with state and/or highway police - less than one in six (15%) could communicate with highway police, and a little less than one-third (31%) could communicate with state police.

Conclusions

While it is interesting to note that over half of EMS services reported that Medicare/Medicaid was their primary source of funding, financial problems – mainly due to declining reimbursements in Medicare - are the main problems facing EMS providers in Arkansas. This has been shown in both the analysis of questions from the “Priority Needs” section of the questionnaire as well as through analysis of comments made by EMS providers in the “Other Needs” section of the questionnaire. Decreasing reimbursement rates from Medicare have severely impacted the ability of EMS services to carry out their necessary services. Low reimbursement rates affect EMS services’ financial solvability, in turn affecting the ability of services to recruit/retain personnel and maintain equipment and facilities.

EMS services need assistance in locating and securing grant funding. This could be a great opportunity for the Office of Rural Health and Primary Care and the Office of EMS and Trauma Systems to collaborate and offer educational workshops on locating grants and writing successful grant applications.

Finally, as a whole, most EMS services have personnel who can respond to hazardous materials emergencies. However, based on the responses to the survey, fewer EMS services have personnel who can respond to other types of emergencies associated with a chemical or biological terrorist attack (i.e., explosions, radioactive materials, and mass immunizations). EMS services need more training in these areas to be prepared for these types of emergencies.

**APPENDIX A:
EMS NEEDS ASSESSMENT SURVEY**



Arkansas Department of Health
Office of Emergency Medical Services and Trauma Systems
Office of Rural Health and Primary Care

Arkansas Department of Health
Office of Emergency Medical Services and Trauma Systems
Office of Rural Health and Primary Care
Emergency Medical Services (EMS) Needs Assessment Survey

DEAR SERVICE MANAGER:

Introduction

The Arkansas Department of Health's Office of Emergency Medical Services and Trauma Systems and the Office of Rural Health and Primary Care have joined together to form a partnership to conduct this survey of all EMS providers in Arkansas.

The purpose of conducting this survey is to gather data to better understand the needs and viewpoints of Arkansas' EMS providers - who provide much-needed and vital services to the communities they serve. Results from the survey will be used to help allocate staff resources and federal and state funding, including grants, to improve the level of service of EMS providers in Arkansas.

Directions

We ask that you - or the current director or manager for this EMS service - complete the survey for your service according to the directions in the survey and mail it back to us in the postage-paid envelope provided.

Please note: *If your service is licensed to provide more than one type of care (for example, Paramedic Life Support, Basic Life Support, or Intermediate Life Support), we ask that you please fill out only one survey per service area. Please do not distinguish your answers between the types of care provided by your service; answer the questions based on the highest level of care provided by your service.*

Your opinions are extremely valuable and will be given important consideration as we determine how to allocate future resources and funding to improve EMS services in Arkansas. However, realignment of funds or grants will be made only where or when available. Therefore, we kindly ask that you complete this survey to help us understand your needs and concerns as an EMS provider.

For questions about the survey, contact:

David Taylor, Director
 Office of EMS and Trauma Systems
 4815 W. Markham, Slot #38
 Little Rock, AR 72205
 (501) 661-2178
 E-mail: dtaylor@healthyarkansas.com

Equipment and Supply Needs

Based on your service assets and current condition of your equipment, please rate the following items as to whether they adequately meet the needs of your service. Please use the following response categories: 1=Does not meet needs at all, 2=Somewhat meets needs, 3=Mostly meets needs, 4=Adequately meets needs, 5=Fully meets needs.

Please circle only **one** answer per question.

	Does not meet needs at all	Somewhat meets needs	Mostly meets needs	Adequately meets needs	Fully meets needs	Not Applicable
1. Facilities (meetings, etc.)	1	2	3	4	5	N/A
2. Garages	1	2	3	4	5	N/A
3. Ambulances	1	2	3	4	5	N/A
4. Stretchers	1	2	3	4	5	N/A
5. Portable oxygen unit	1	2	3	4	5	N/A
6. Non-disposable airway devices	1	2	3	4	5	N/A
7. Personal protection devices	1	2	3	4	5	N/A
8. Radio equipment	1	2	3	4	5	N/A
9. Cellular telephones	1	2	3	4	5	N/A
10. Training materials	1	2	3	4	5	N/A
11. Defibrillator	1	2	3	4	5	N/A
12. Pediatric equipment	1	2	3	4	5	N/A

13. How does your service conduct billing activities? (*check all that apply*)

- 1) Service bills directly
- 2) Billing contracted to outside entity
- 3) Other (specify)

14. Does your service use computerized billing? (*check only one*)

- 1) Yes
- 2) No
- 3) Not applicable

15. Does your service have **Internet** access? (*check only one*)

- 1) Yes
- 2) No

Staffing/Personnel Needs

These next two questions are about your efforts to recruit and retain health care providers (excluding support staff). Please use the following response categories: 1=Very difficult, 2=Fairly difficult, 3=Somewhat difficult, 4=A little difficult, 5=Not at all difficult.

Please circle only **one** answer per question.

	Very difficult	Fairly difficult	Somewhat difficult	A little difficult	Not at all difficult
16. To what extent does your service have difficulty <u>recruiting</u> health care providers (excluding support staff)?	1	2	3	4	5
17. To what extent does your service have difficulty <u>retaining</u> health care providers (excluding support staff)?	1	2	3	4	5

In your opinion, to what extent do the following issues act as barriers to **retention** of local individuals into the local EMS system? Please use the following response categories: 1=Major Barrier, 2=Somewhat of a Barrier, 3=Not a Barrier.

Please circle only **one** answer per question.

	Major Barrier	Somewhat of a Barrier	Not a Barrier
18. Time away from family	1	2	3
19. Long hours	1	2	3
20. Training requirements	1	2	3
21. Stress of EMS work	1	2	3
22. Inadequate or low pay	1	2	3
23. Poor retention effort	1	2	3
24. Physical demands	1	2	3
25. Health hazards	1	2	3
26. No interest in EMS	1	2	3
27. Medical liability	1	2	3

Grant Assistance Needs

28. Excluding the EMS Revolving Fund, does your service actively seek out and apply for **grant assistance**? (*check only one*)

- 1) Yes
- 2) No

29. Excluding the EMS Revolving Fund, has your service ever applied for grant assistance? (*check only one*)

- 1) Yes
- 2) No

30. Is there a member of your service who has experience applying for grant assistance? (*check only one*)

- 1) Yes
- 2) No

Emergency Preparedness

31. Has any of your staff received training to respond to the following?

Circle "Yes" **or** "No" for **EACH** area listed below.

- | | | |
|---|-----|----|
| A) Hazardous Materials | Yes | No |
| B) Bioterrorism/Weapons of Mass Destruction | Yes | No |
| C) Explosions | Yes | No |
| D) Radioactive Materials | Yes | No |
| E) Mass Immunization | Yes | No |

32. Does your service have a standard operating guide or procedure for the following?

Circle "Yes" **or** "No" for **EACH** area listed below.

- | | | |
|---|-----|----|
| A) Hazardous Materials | Yes | No |
| B) Bioterrorism/Weapons of Mass Destruction | Yes | No |
| C) Explosions | Yes | No |
| D) Radioactive Materials | Yes | No |
| E) Mass Immunization | Yes | No |

Priority Needs

33. From the list below, please rank your service's **top 5 priority needs or concerns**. For example, please rank your highest priority as 1, your second highest priority area as 2, and so on until you have ranked your top 5.

RANK

A)	Training and upgrading EMS personnel	
B)	Supply needs (such as dressings, medications, etc.)	
C)	Equipment needs (such as communications, resuscitation units, computers/software, transportation, etc.)	
D)	Financial needs (reimbursement for services, concerns about sustainability, etc.)	
E)	Recruiting and retention of EMS personnel	
F)	Relations with hospitals	
G)	Continuing Education for EMS personnel	
H)	Quality Assurance	
I)	Communication Equipment	
J)	Equipment for Hazmat and/or Bioterrorism response	

34. Please discuss any **other needs** your service has concerning your service's ability to continue providing quality EMS services to your area. Attach a separate sheet of paper, if necessary.

Manpower Statistics and Demographics

35. Your service is: (*check only the highest level of care that applies to your service*)

- | | |
|---------------------------|--------------------------|
| 1) I-B | <input type="checkbox"/> |
| 2) I-A | <input type="checkbox"/> |
| 3) Paramedic Life Support | <input type="checkbox"/> |
| 4) Advanced Response | <input type="checkbox"/> |
| 5) Special Purpose | <input type="checkbox"/> |
| 6) Air Ambulance | <input type="checkbox"/> |

36. Your service is: (*check all that apply*)

- | | |
|-------------------|--------------------------|
| 1) Hospital-Based | <input type="checkbox"/> |
| 2) Fire-Based | <input type="checkbox"/> |
| 3) Private | <input type="checkbox"/> |
| 4) Volunteer | <input type="checkbox"/> |
| 5) Public | <input type="checkbox"/> |

37. **Excluding support staff**, how many of your health care providers are:

- | | |
|---|-------|
| A. Paid staff | _____ |
| B. Paid volunteers | _____ |
| C. Unpaid volunteers (no monetary pay) | _____ |
| D. TOTAL HEALTH CARE PROVIDERS STAFF (A+B+C) | _____ |

38. The **primary** source of funding for your service would be best described as:
(*check only one*)

- | | |
|------------------------|--------------------------|
| 1) Patient billing | <input type="checkbox"/> |
| 2) Medicare/Medicaid | <input type="checkbox"/> |
| 3) City/County funding | <input type="checkbox"/> |
| 4) Fund raising | <input type="checkbox"/> |
| 5) Other | <input type="checkbox"/> |

39. What are your radio communication capabilities?
(check all that apply)

- 1) VHF Low (36-50 mHz)
- 2) VHF High (150-174 mHz)
- 3) UHF (450-510 mHz)
- 4) 800 mHz

40. What is the average age of your service's radio equipment?
(check only one)

- 1) 0 to 5 years
- 2) 6 to 10 years
- 3) 11 years or older

41. What are your radio communication capabilities with other agencies?
(check all that apply)

- 1) Police – city
- 2) Police - county
- 3) Police – state
- 4) Police - highway
- 5) Fire
- 6) Hospital
- 7) Medical First Responders
- 8) Other EMS agencies

PLEASE RETURN YOUR COMPLETED SURVEY IN THE POSTAGE-PAID ENVELOPE OR MAIL TO THE FOLLOWING ADDRESS:

**EMS Needs Assessment Survey
Office of EMS and Trauma Systems
4815 W. Markham, Slot #38
Little Rock, AR 72205**

DEADLINE FOR COMPLETED SURVEYS IS FRIDAY, MARCH 26, 2004.

THANKS FOR YOUR PARTICIPATION IN THIS SURVEY!

**APPENDIX B:
FREQUENCY TABULATIONS**

The FREQ Procedure

Q1 - Do the following items adequately meet the needs of your service - Facilities?

_Q1	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Fully Meets Needs	42	35.90	42	35.90
Adequately Meets Needs	28	23.93	70	59.83
Mostly Meets Needs	16	13.68	86	73.50
Somewhat Meets Needs	23	19.66	109	93.16
Does Not Meet Needs At All	5	4.27	114	97.44
NA	3	2.56	117	100.00

Frequency Missing = 2

Q2 - Do the following items adequately meet the needs of your service - Garages?

_Q2	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Fully Meets Needs	35	30.43	35	30.43
Adequately Meets Needs	25	21.74	60	52.17
Mostly Meets Needs	19	16.52	79	68.70
Somewhat Meets Needs	11	9.57	90	78.26
Does Not Meet Needs At All	19	16.52	109	94.78
NA	6	5.22	115	100.00

Frequency Missing = 4

Q3 - Do the following items adequately meet the needs of your service - Ambulances?

_Q3	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Fully Meets Needs	49	41.88	49	41.88
Adequately Meets Needs	32	27.35	81	69.23
Mostly Meets Needs	25	21.37	106	90.60
Somewhat Meets Needs	5	4.27	111	94.87
NA	6	5.13	117	100.00

Frequency Missing = 2

The FREQ Procedure

Q4 - Do the following items adequately meet the needs of your service - Stretchers?

_Q4	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Fully Meets Needs	48	41.03	48	41.03
Adequately Meets Needs	46	39.32	94	80.34
Mostly Meets Needs	11	9.40	105	89.74
Somewhat Meets Needs	8	6.84	113	96.58
NA	4	3.42	117	100.00

Frequency Missing = 2

Q5 - Do the following items adequately meet the needs of your service - Portable Oxygen Unit?

_Q5	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Fully Meets Needs	69	58.47	69	58.47
Adequately Meets Needs	40	33.90	109	92.37
Mostly Meets Needs	8	6.78	117	99.15
Somewhat Meets Needs	1	0.85	118	100.00

Frequency Missing = 1

Q6 - Do the following items adequately meet the needs of your service - Non-Disposable airway devices?

_Q6	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Fully Meets Needs	53	44.92	53	44.92
Adequately Meets Needs	41	34.75	94	79.66
Mostly Meets Needs	11	9.32	105	88.98
NA	13	11.02	118	100.00

Frequency Missing = 1

Q7 - Do the following items adequately meet the needs of your service - Personal protection devices?

_Q7	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Fully Meets Needs	45	38.46	45	38.46
Adequately Meets Needs	39	33.33	84	71.79
Mostly Meets Needs	25	21.37	109	93.16
Somewhat Meets Needs	8	6.84	117	100.00

Frequency Missing = 2

Q8 - Do the following items adequately meet the needs of your service - Radio equipment?

_Q8	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Fully Meets Needs	31	26.27	31	26.27
Adequately Meets Needs	42	35.59	73	61.86
Mostly Meets Needs	27	22.88	100	84.75
Somewhat Meets Needs	15	12.71	115	97.46
Does Not Meet Needs At All	1	0.85	116	98.31
NA	2	1.69	118	100.00

Frequency Missing = 1

Q9 - Do the following items adequately meet the needs of your service - Cellular telephones?

_Q9	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Fully Meets Needs	25	21.19	25	21.19
Adequately Meets Needs	34	28.81	59	50.00
Mostly Meets Needs	19	16.10	78	66.10
Somewhat Meets Needs	9	7.63	87	73.73
Does Not Meet Needs At All	9	7.63	96	81.36
NA	22	18.64	118	100.00

Frequency Missing = 1

Q10 - Do the following items adequately meet the needs of your service - Training materials?

_Q10	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Fully Meets Needs	25	21.19	25	21.19
Adequately Meets Needs	42	35.59	67	56.78
Mostly Meets Needs	30	25.42	97	82.20
Somewhat Meets Needs	17	14.41	114	96.61
Does Not Meet Needs At All	3	2.54	117	99.15
NA	1	0.85	118	100.00

Frequency Missing = 1

Q11 - Do the following items adequately meet the needs of your service - Defibrillator?

_Q11	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Fully Meets Needs	59	50.43	59	50.43
Adequately Meets Needs	43	36.75	102	87.18
Mostly Meets Needs	10	8.55	112	95.73
Somewhat Meets Needs	2	1.71	114	97.44
NA	3	2.56	117	100.00

Frequency Missing = 2

Q12 - Do the following items adequately meet the needs of your service - Pediatric equipment?

_Q12	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Fully Meets Needs	21	18.10	21	18.10
Adequately Meets Needs	55	47.41	76	65.52
Mostly Meets Needs	24	20.69	100	86.21
Somewhat Meets Needs	11	9.48	111	95.69
Does Not Meet Needs At All	4	3.45	115	99.14
NA	1	0.86	116	100.00

Frequency Missing = 3

Q13 - How does your service conduct billing activities?
(Check all that apply)

	Count	Percent
Service bills directly	90	75.6 %
Billing contracted to outside entity	11	9.2 %
Other	8	6.7 %
No Billing	10	8.4 %

Q14 - Does your service use computerized billing?

Q14	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	92	77.31	92	77.31
No	14	11.76	106	89.08
Not Applicable	13	10.92	119	100.00

Q15 - Does your service have Internet access?

Q15	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	107	89.92	107	89.92
No	12	10.08	119	100.00

Q16 - To what extent does your service have difficulty RECRUITING health care providers (excluding support staff)?

_Q16	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Not At All Difficult	16	13.45	16	13.45
A Little Difficult	28	23.53	44	36.97
Somewhat Difficult	24	20.17	68	57.14
Fairly Difficult	30	25.21	98	82.35
Very Difficult	21	17.65	119	100.00

Q17 - To what extent does your service have difficulty RETAINING health care providers (excluding support staff)?

_Q17	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Not At All Difficult	31	26.05	31	26.05
A Little Difficult	39	32.77	70	58.82
Somewhat Difficult	23	19.33	93	78.15
Fairly Difficult	16	13.45	109	91.60
Very Difficult	10	8.40	119	100.00

Q18 - To what extent do the following issues act as barriers to RETENTION of local individuals into the local EMS system - Time away from family?

_Q18	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Not a Barrier	30	25.64	30	25.64
Somewhat of a Barrier	64	54.70	94	80.34
Major Barrier	23	19.66	117	100.00

Frequency Missing = 2

Q19 - To what extent do the following issues act as barriers to RETENTION of local individuals into the local EMS system - Long hours?

_Q19	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Not a Barrier	32	27.35	32	27.35
Somewhat of a Barrier	63	53.85	95	81.20
Major Barrier	22	18.80	117	100.00

Frequency Missing = 2

Q20 - To what extent do the following issues act as barriers to RETENTION of local individuals into the local EMS system - Training requirements?

_Q20	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Not a Barrier	54	46.15	54	46.15
Somewhat of a Barrier	56	47.86	110	94.02
Major Barrier	7	5.98	117	100.00

Frequency Missing = 2

Q21 - To what extent do the following issues act as barriers to RETENTION of local individuals into the local EMS system - Stress of EMS work?

_Q21	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Not a Barrier	30	25.64	30	25.64
Somewhat of a Barrier	72	61.54	102	87.18
Major Barrier	15	12.82	117	100.00

Frequency Missing = 2

Q22 - To what extent do the following issues act as barriers to RETENTION of local individuals into the local EMS system - Inadequate or low pay?

_Q22	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Not a Barrier	26	22.81	26	22.81
Somewhat of a Barrier	42	36.84	68	59.65
Major Barrier	46	40.35	114	100.00

Frequency Missing = 5

Q23 - To what extent do the following issues act as barriers to RETENTION of local individuals into the local EMS system - Poor retention effort?

_Q23	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Not a Barrier	52	44.44	52	44.44
Somewhat of a Barrier	54	46.15	106	90.60
Major Barrier	11	9.40	117	100.00

Frequency Missing = 2

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Q24 - To what extent do the following issues act as barriers to RETENTION of local individuals into the local EMS system - Physical demands?

_Q24	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Not a Barrier	56	47.86	56	47.86
Somewhat of a Barrier	57	48.72	113	96.58
Major Barrier	4	3.42	117	100.00

Frequency Missing = 2

Q25 - To what extent do the following issues act as barriers to RETENTION of local individuals into the local EMS system - Health hazards?

_Q25	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Not a Barrier	59	50.43	59	50.43
Somewhat of a Barrier	57	48.72	116	99.15
Major Barrier	1	0.85	117	100.00

Frequency Missing = 2

Q26 - To what extent do the following issues act as barriers to RETENTION of local individuals into the local EMS system - No interest in EMS?

_Q26	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Not a Barrier	62	52.99	62	52.99
Somewhat of a Barrier	38	32.48	100	85.47
Major Barrier	17	14.53	117	100.00

Frequency Missing = 2

Q27 - To what extent do the following issues act as barriers to RETENTION of local individuals into the local EMS system - Medical liability?

_Q27	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Not a Barrier	71	60.68	71	60.68
Somewhat of a Barrier	43	36.75	114	97.44
Major Barrier	3	2.56	117	100.00

Frequency Missing = 2

Q28 - Excluding the EMS Revolving Fund, does your service actively seek out and apply for grant assistance?

Q28	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	44	37.61	44	37.61
No	73	62.39	117	100.00

Frequency Missing = 2

Q29 - Excluding the EMS Revolving Fund, has your service ever applied for grant assistance?

Q29	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	60	51.28	60	51.28
No	57	48.72	117	100.00

Frequency Missing = 2

Q30 - Is there a member of your service who has experience applying for grant assistance?

Q30	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	54	45.76	54	45.76
No	64	54.24	118	100.00

Frequency Missing = 1

Q31A - Have you received training for response to the following - Hazardous materials?

Q31A	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	107	90.68	107	90.68
No	11	9.32	118	100.00

Frequency Missing = 1

Q31B - Have you received training for response to the following - Bioterrorism/Weapons of mass destruction?

Q31B	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	87	73.73	87	73.73
No	31	26.27	118	100.00

Frequency Missing = 1

Q31C - Have you received training for response to the following - Explosions?

Q31C	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	65	55.08	65	55.08
No	53	44.92	118	100.00

Frequency Missing = 1

Q31D - Have you received training for response to the following - Radioactive materials?

Q31D	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	69	58.47	69	58.47
No	49	41.53	118	100.00

Frequency Missing = 1

Q31E - Have you received training for response to the following - Mass Immunization?

Q31E	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	29	24.79	29	24.79
No	88	75.21	117	100.00

Frequency Missing = 2

Q32A - Does your service have a standard operating guide or procedure for the following - Hazardous materials?

Q32A	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	94	79.66	94	79.66
No	24	20.34	118	100.00

Frequency Missing = 1

Q32B - Does your service have a standard operating guide or procedure for the following - Bioterrorism/Weapons of mass destruction?

Q32B	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	60	51.28	60	51.28
No	57	48.72	117	100.00

Frequency Missing = 2

Q32C - Does your service have a standard operating guide or procedure for the following - Explosions?

Q32C	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	51	43.22	51	43.22
No	67	56.78	118	100.00

Frequency Missing = 1

Q32D - Does your service have a standard operating guide or procedure for the following - Radioactive materials?

Q32D	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	55	47.01	55	47.01
No	62	52.99	117	100.00

Frequency Missing = 2

Q32E - Does your service have a standard operating guide or procedure for the following - Mass Immunization?

Q32E	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	24	20.51	24	20.51
No	93	79.49	117	100.00

Frequency Missing = 2

Q33 - Top 5 EMS priority area

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Variable	Label	N
Q33A	Q33A - Priority Needs: Training and upgrading EMS personnel	119
Q33B	Q33B - Priority Needs: Supply needs (such as dressings, medications, etc.)	119
Q33C	Q33C - Priority Needs: Equipment needs (such as communications, resuscitation units, computers/software, transportation, etc.)	119
Q33D	Q33D - Priority Needs: Financial needs (reimbursement for services, concerns about sustainability, etc.)	119
Q33E	Q33E - Priority Needs: Recruiting and retention of EMS personnel	119
Q33F	Q33F - Priority Needs: Relations with hospitals	119
Q33G	Q33G - Priority Needs: Continuing Education for EMS personnel	119
Q33H	Q33H - Priority Needs: Quality Assurance	119
Q33I	Q33I - Priority Needs: Communication Equipment	119
Q33J	Q33J - Priority Needs: Equipment for Hazmat and/or Bioterrorism response	119

Variable	Mean	Std Dev	Minimum	Maximum
Q33A	4.4621849	2.5670332	1.0000000	8.0000000
Q33B	7.2016807	1.7494785	2.0000000	8.0000000
Q33C	4.7647059	2.7050044	1.0000000	8.0000000
Q33D	3.7394958	2.9843155	1.0000000	8.0000000
Q33E	4.4369748	2.9274813	1.0000000	8.0000000
Q33F	7.1260504	1.8619956	1.0000000	8.0000000
Q33G	5.6806723	2.4108961	1.0000000	8.0000000
Q33H	6.7983193	2.1015726	1.0000000	8.0000000
Q33I	6.2605042	2.2264290	1.0000000	8.0000000
Q33J	6.4621849	2.1737647	1.0000000	8.0000000

Q35 - Level of service care

Q35	Frequency	Percent	Cumulative Frequency	Cumulative Percent
I-B	19	16.67	19	16.67
I-A	7	6.14	26	22.81
Paramedic Life Support	77	67.54	103	90.35
Advanced Response	2	1.75	105	92.11
Special Purpose	4	3.51	109	95.61
Air Ambulance	5	4.39	114	100.00

Frequency Missing = 5

Q36 - Your service is:
(Check all that apply)

	Count	Percent
Hospital-Based	18	15.1 %
Fire-Based	20	16.8 %
Private	52	43.6 %
Volunteer	21	17.6 %
Public	14	11.7 %

Q37 - Number of Providers:
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Variable	Label	N	Mean	Std Dev
Q37A	Q37 - Number of Providers - Paid staff	91	25.5054945	36.5222531
Q37B	Q37 - Number of Providers - Paid volunteers	35	3.9142857	7.5239673
Q37C	Q37 - Number of Providers - Unpaid volunteers	26	7.5769231	11.0532279
Q37D	Q37 - Number of Providers - Total staff	82	30.0853659	37.5227343

Variable	Label	Minimum	Maximum
Q37A	Q37 - Number of Providers - Paid staff	0	253.0000000
Q37B	Q37 - Number of Providers - Paid volunteers	0	35.0000000
Q37C	Q37 - Number of Providers - Unpaid volunteers	0	40.0000000
Q37D	Q37 - Number of Providers - Total staff	0	253.0000000

Q38 - Primary source of funding

Q38	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Patient Billing	17	15.04	17	15.04
Medicare/Medicaid	64	56.64	81	71.68
City/County Funding	19	16.81	100	88.50
Fund Raising	2	1.77	102	90.27
Other (Specify)	11	9.73	113	100.00

Frequency Missing = 6

Q39 - What are your radio communication capabilities?
(Check all that apply)

	Count	Percent
VHF Low (36-50 mHz)	13	10.9 %
VHF High (150-174 mHz)	99	83.1 %
UHF (450-510 mHz)	21	17.6 %
800 mHz	22	18.4 %

Q40 - Average age of radio equipment

Q40	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0 to 5 Years	50	43.10	50	43.10
6 to 10 Years	60	51.72	110	94.83
11 Years or Older	6	5.17	116	100.00

Frequency Missing = 3

Q41 - What are your radio communication capabilities with other agencies?
(Check all that apply)

	Count	Percent
Police - city	97	81.5 %
Police - county	97	81.5 %
Police - state	37	31.0 %
Police - highway	18	15.1 %
Fire	96	80.6 %
Hospital	111	93.2 %
Medical First Responders	71	59.6 %
Other EMS agencies	80	67.2 %