



# MT Emergency Medical Services Training Needs

## FINDINGS

In 2008, the Montana Department of Public Health and Human Services conducted a survey of a statewide representative sample of licensed Emergency Medical Technicians (EMTs) to assess the adequacy of their certification / refresher course training and the need for additional training.

### Major findings:

- **Were EMTs satisfied with their lead instructor?** Overall, the satisfaction of EMTs for their lead instructors of the certification and refresher courses was high (>90%).
- **Were EMTs adequately prepared to provide pre-hospital care based on the training?** The majority of EMTs reported that their last certification training/refresher course adequately prepared them to provide care. However, the adequacy of training was rated lower for childbirth, pediatric care, and triage.
- **Do EMTs need additional training?** Approximately half of EMTs indicated the need for additional training in the areas of child birth, pediatric care and triage; over one third indicated the need for additional training in acute stroke, cardiac arrest, medical assessment, shock, and trauma assessment.

## BACKGROUND

Ongoing training and continuing education are critical for EMTs to maintain adequate knowledge, skills, and abilities for prehospital care. In 1999, the National Registry of Emergency Medical Technicians conducted a survey of a representative sample of Basics EMTs and Paramedics nationally to assess the adequacy of their training and training needs.<sup>1</sup> The overall adequacy of training for EMTs in the survey was relatively high but there were opportunities to improve training. Few studies have assessed the adequacy and need for training among EMTs in rural states. To address this issue in Montana, the Emergency Medical Services (EMS) and Trauma Systems Section, part of the Montana Department of Public Health and Human Services (DPHHS), conducted a survey of EMTs in Montana in 2008. This survey was designed to assess the adequacy of EMT certification/refresher course training in Montana and the need for additional training.

*Access to quality training and education is critical for EMTs in Montana*

# METHODS

From January through March 2008, the Montana DPHHS conducted a telephone survey of EMTs to assess workforce retention issues and training needs. A representative systematic sample of EMTs was selected from the population of licensed EMTs in the state. Trained interviewers conducted the survey using computer assisted telephone interviewing software.

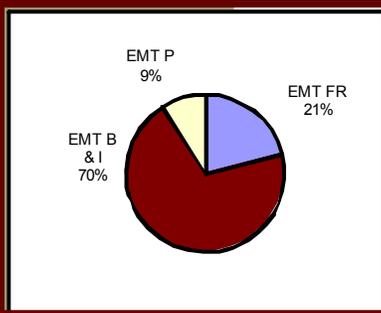


Figure 1: Licensed Emergency Medical Technicians (EMT) in MT by certification type, 2007.

The survey instrument included 74 questions and included questions regarding the respondent's demographic characteristics, the characteristics of the respondent's current position as an EMT, questions regarding the last certification training and refresher course, recent EMT continuing education and training. The questions regarding the last certification training and refresher course assessed the lead instructor's abilities, the cost and difficulty getting to the training, the adequacy of the training course, and the need for additional training in selected areas. Due to the small number of EMT-Intermediates surveyed, this group was combined with EMT-Basics for data analysis.

A listing of all licensed EMTs (n=4460), which includes First Responders, Basics and Intermediates, and Paramedics, was obtained through the Business and Occupational Licensing Bureau of the Montana Department of Labor and Industry (Figure 1).

# SURVEY RESULTS

53% of the EMTs completed the survey (N=1023). The majority of respondents were EMT Basic/ Intermediates (65%) or First Responders (26%). Approximately two-thirds of respondents were men, and nearly 60% worked in an urban county. Eighty percent of respondents provided EMT-field care, and 50% were volunteers who receive little to no compensation for EMT work time. Over 40% of respondents reported working as an EMT for ten or more years. Ninety-one percent of respondents indicated they were very satisfied or satisfied with the EMS profession (Table 1).

Table 1: Characteristics of EMTs responding to the survey, Montana, 2008

Years working as an EMT	%	(n)
<5	34	349
5 to 9	21	219
≥ 10	43	444
Satisfaction with EMS Profession		
Very Satisfied / Satisfied	91	915
Neither satisfied/dissatisfied, dissatisfied, very dissatisfied	9	92

EMT Type	%	(n)
First Responder	26	270
Basic/Intermediate	65	667
Paramedic	8	86
Gender		
Male	63	648
Female	37	375
Age		
18-34	24	241
35-49	39	388
50+	36	363
County of Practice		
Urban	41	415
Frontier	58	594
Position Compensation		
Non-compensated	50	510
Partially compensated	21	210
Fully compensated	28	287



Overall, 85% of respondents indicated their last EMT training course was a refresher course, while fewer (14%) participated in an initial certification course.

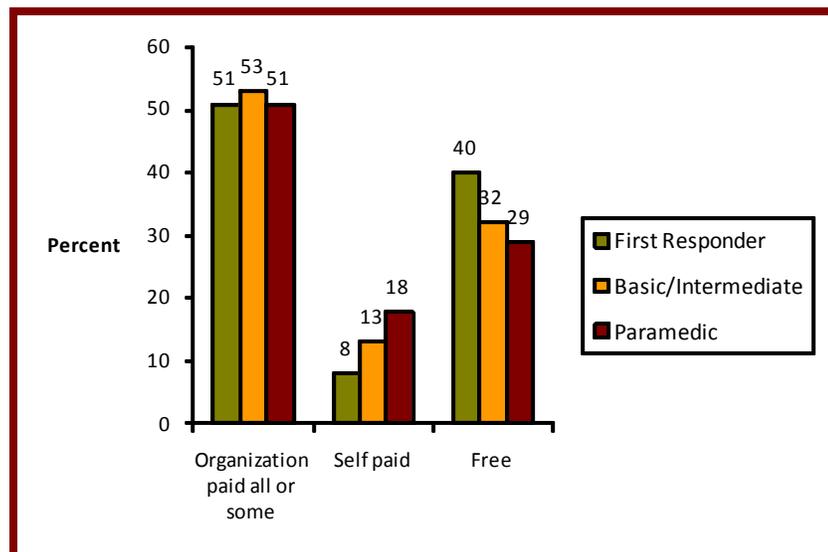
The overall ratings for the lead instructors of the initial certification and refresher courses was high (>90%). Lead instructor ratings were highest among First Responders and somewhat lower among Paramedics (Table 2).

Table 2. Emergency medical technicians rating of lead instructors from the most recent certification or refresher course completed, by EMT type, Montana, 2008.

	First Responder (n = 270)	Basic/ Intermediate (n = 652)	Paramedic (n = 86)	Total (N =1,008)
	%	%	%	%
Technical knowledge of subject area	98	97	90	97
Practical knowledge of clinical skills	99	96	92	97
Met course objectives	97	96	89	96
Overall teaching ability	95	93	83	93
Enthusiasm	97	96	78	95
Professionalism	97	95	90	95

Most EMTs reported that their organization (49%) paid for their course fees or that the training course was free (34%). However, a larger proportion of paramedics paid for the cost of their most recent training/refresher course (Figure 2).

Figure 2: Cost of certification / refresher course by EMT Type, MT, 2008



Overall, the majority of EMTs reported that their last certification training/refresher course adequately prepared them to provide care. The adequacy of training (very well & well prepared) was highest for spinal immobilization, fracture and airway management, shock, and trauma assessment, and lowest for childbirth, pediatric care, and triage. Paramedics reported a higher level of adequacy of training compared to EMT Basics/Intermediates, and First Responders (Table 3).

Table 3: Adequacy of being very well or well preparedness in selected areas among EMTs, by EMT type, MT, 2008

	First Responder	Basic / Intermediate	Paramedic	Total
Acute Stroke	34%	57%	78%	53%
Airway Mgmt	56%	73%	78%	69%
Cardiac Arrest	46%	70%	80%	65%
Childbirth	14%	26%	35%	24%
Fracture Mgmt	53%	72%	73%	67%
Medical Assessment	41%	65%	79%	60%
Patient Transport	38%	67%	75%	61%
Pediatric	24%	39%	44%	35%
Shock	53%	67%	79%	64%
Spinal Immobilization	59%	85%	82%	78%
Trauma	46%	69%	82%	64%
Triage	29%	47%	53%	43%

## CONCLUSION

Our findings suggest that the overall ratings for the lead instructors of the certification and refresher courses was high (>90%). Overall, the majority of EMTs reported that their last certification training/refresher course adequately prepared them to provide care. The adequacy of training was highest for spinal immobilization, fracture and airway management, shock, and trauma assessment, and lowest for childbirth, pediatric care, and triage. Although the majority of EMTs surveyed reported adequacy in most patient care areas, half or better indicated the need for additional training regarding child birth (62%), pediatric care (60%) and triage (49%), and over one third indicated the need for additional training in acute stroke (39%), cardiac arrest (35%), medical assessment (38%), shock (33%), and trauma assessment (35%).

Our findings are comparable to those reported in the National Registry of Emergency Medical Technicians LEADS study. They found that relatively few EMT-Basics and Paramedics reported difficulties in getting to certification and refresher courses (4% and 15%, respectively). They found that the ratings for lead instructors was very high (>80% excellent or good). They also found that the adequacy of training was higher among paramedics compared to EMT-Basics<sup>1</sup>. Similar to our findings, the adequacy of EMT training related to childbirth and pediatric care was somewhat lower than other areas (e.g., spinal immobilization).

The MT EMS and Trauma System will be supporting an increase in pediatric and trauma courses throughout Montana in the coming and future years.

Reference :

1. Brown WE Jr, Dickson PD, Misselbeck WJ, Levine R. Longitudinal Emergency Medical Technician Attribute and Demographic Study (LEADS): an interim report. *Prehospital Emerg Care* 2002;6(4):433-9.

*Over half of Montana EMTs report that they need additional training in childbirth, pediatrics, and triage*