

EMMCO West, Inc.
EMS System Assessment 2018 - 2019

Inventory

PERSONNEL

Certified Personnel:

FY	11-12	12-13	13-14	14-15	15-16	16-17	17-18
EMR	190	187	172	306	327	299	275
EMT	2278	2346	2259	1940	1871	1852	1736
AEMT					6	7	9
Paramedic	561	572	573	473	344	392	379
PHRN	108	112	119	97	66	82	76
PHPE					4	4	4
PHP	15	15	19	29	12	12	6
Total	3152	3232	3142	2845	2620	2648	2485
Instructors	98	97	98	87	88	92	101

Net Gain/Loss: The following chart shows the number of personnel gained or lost from fiscal year to fiscal year and the net gain or loss from FY 12-13 to present

FY	12-13	13-14	14-15	15-16	16-17	17-18	Net Gain/Loss
EMR	-3	-15	134	21	-28	-24	85
EMT	68	-87	-319	-69	-19	-116	-542
AEMT				6	1	2	9
Paramedic	11	1	-100	-129	48*	-13	-182
PHRN	4	7	-22	-31	16	-6	-32
PHPE				4	0	0	4
PHP	0	4	10	-17	0	-6	-9
Total	80	-90	-63	-222	18	-163	-440
Instructors	-1	1	-11	1	4	9	3

* Increase associated with dual certified EMS providers out-of-state

(Certification Programs Held)

	<u>YEAR</u>	<i>EMR</i>	<i>EMT</i>	<i>AEMT</i>	<i>Para</i>
Clarion	2013	2	1		0
	2014	1	1		0
	2015	1	1		0
	2016	1	1	0	0
	2017	0	1	0	0
	2018	0	1	0	0
Crawford	2013	0	1		0
	2014	2	3		0
	2015	1	2		0
	2016	1	1	0	0
	2017	0	1	0	0
	2018	0	2	0	0
Erie	2013	7	1		3
	2014	2	8		2
	2015	4	5		1
	2016	3	4	0	1
	2017	2	3	0	0
	2018	1	5	0	1
Forest	2013	0	0		0
	2014	0	0		0
	2015	0	0		0
	2016	0	0	0	0
	2017	0	0	0	0
	2018	0	0	0	0
Mercer	2013	1	1		1
	2014	1	1		0
	2015	0	2		0
	2016	1	2	1	0
	2017	1	1	1	0
	2018	0	3	1	0
Venango	2013	0	0		0
	2014	0	0		0
	2015	0	1		0
	2016	1	0	0	0
	2017	1	1	0	0
	2018	2	1	0	0
Warren	2013	0	0		0
	2014	0	0		0
	2015	1	1		0
	2016	0	1	0	0
	2017	2	1	0	0
	2018	1	1	0	0

Certification Program Success Rates EMR & EMT (A number of candidates are in the initial testing process for 2017)

	2012	2013	2014	2015	2016	2017	2018
Classes	18	14	19	22	16	16	26
Candidates	312	142	280	356	240	292	233
Complete Program	238 (76.3%)	100(70.42%)	189 (67.5%)	272(76.4%)	168(70%)	217 (74.3%)	159 (68.2%)
Pass Initial Practical	124 (52.1%)	26 (26%)	75 (39.68%)	97 (35.6%)	56(33.3%)	85	68 (42.7%)
Pass Subsequent Practical	105 (41.1%)	54 (54%)	107 (56.61%)	140 (51.4%)	88(52.3%)	107	69(43.3%)
Total Pass Practical	229 (93.2%)	80 (80%)	182 (96.3%)	237(87.1%)	155(85.7%)	192 (88.4%)	137 (86.1%)
Pass Written 1 st Attempt	183 (79.9%)	58 (72.5%)	76 (41.76%)	84 (35.4%)	104	39	54 (40%)
Pass Written 2 nd Attempt	14 (6.1%)	6 (7.5%)	11	17 (7.1%)	23	7	11 (7%)
Pass Written 3 rd Attempt	2 (0.9%)	0	3	5 (2%)	4	1	2 (1.2%)
Pass Subsequent Written	4 (1.7%)	1 (1.25%)	4	0	0	0	0
Personnel Certified*	203 (85.3% *)	65 (65%*)	94 (49.73%*)	106(39% *)	131 (78%*)	47**	67** (42.1%)

* % of those completing program to certification ** Incomplete testing process

Pass Rate by Level: # passed/# completing program (with this and above table, some individuals may still be in the testing process)

YEAR	EMR	EMT	AEMT	Paramedic
2016	32.1%	34.5%	25%	61.5%

2017 Pearson View Testing Sites: Erie, Clarion, Warren PA. (New site added to Warren Co.)

OPERATIONS

EMS Agencies (as of Dec 15, 2018)

ALS Ground	21
Air Ambulance	1 + 1 licensed in another region
BLS	49
QRS	55 (strictly QRS)
Rescue agencies at Vehicle and Machinery Operations Level	2
Rescue agencies at Vehicle and Machinery Basic Level	3
Rescue agencies at Vehicle and Machinery Advanced Level	0
Swiftwater Rescue agencies Level 3a	3
Swiftwater Rescue agencies Level 4a	0
BLS EPI Pen agencies	31
BLS CPAP agencies	25
Naloxone agencies (licensed)	20
EMSC agencies	2

Breakdown of Vehicles:

Air	5
ALS Transport	109
ALS Squad	9
CCT	2
BLS	55
QRS	72(just QRS vehicles not an ambulance)
QRS Container	17

PCR Records Submitted by Year: Project

2009	2011	2012	2013	2014	2015	2016*	2017*	2018*
109,082	111,125	115,306	117,759	116,326	114,912	102,000	118,649	101,223

* Estimated.

SYSTEM PERFORMANCE

Mobilization Times: Defined as time from dispatch to en-route.

Source: PCR Data

Inclusion Criteria: Type of Service Requested is 911 Response (Scene) or Intercept

Exclusion Criteria: non-ground EMS agencies

Corrections: 0.5% of top and bottom values removed for entry error elimination.

Mean	1.67 minutes
Median	1
Mode	0
90th Percentile	4

Arrive Times: Defined as time from dispatch to arrival on scene.

Source: PCR Data

Inclusion Criteria: Type of Service Requested is 911 Response (Scene) or Intercept

Exclusion Criteria: non-ground EMS agencies

Corrections: 0.5% of top and bottom values removed for entry error elimination.

Mean	7.32 minutes
Median	6
Mode	5
90th Percentile	14

12 Lead: Defined as procedure time of 12 Lead performed minus the time unit arrived on scene in minutes.

Source: PCR Data

Inclusion Criteria: Type of Service Requested is 911 Response (Scene) or Intercept

Exclusion Criteria: non-ground EMS agencies

Corrections: 0.5% of top and bottom values removed for entry error elimination.

Mean	12.37
Median	11
Mode	10
90th Percentile	23

Aspirin Administration: Defined as the percentage of patients who received aspirin who met the following criteria: 911 response or intercept, Ground EMS Agency Units only, patients with chest pain/discomfort aged 30 years or older.

Capnography Performed: Defined as the percentage of patients whose advanced airway is confirmed and monitored with capnography who met the following criteria: 911 response or intercept, Ground EMS Agency Units only, patients with Airway-oro-tracheal, Airway-nasotracheal, Airway-King LT or airway intubation of existing Tracheostomy Stoma
Source: PCR Data

Inclusion Criteria: Type of Service Requested is 911 Response (Scene) or Intercept

Exclusion Criteria: non-ground EMS agencies

Aspirin	38.39%
Capnography	75%

Missed Call Project Status

The Quality Improvement Committee is conducting an assessment of all missed calls in the region (any call to which the agency would have normally responded regardless of the reason).

- % participating represents the percentage of agencies who are submitting missed call data by county. For example, in Clarion County 100% of agencies sent missed call data to EMMCO West in 2017 but only 83% participated in 2011 and 2012

COUNTY	% participating							
	2011	2012	2013	2014	2015	2016	2017	2018
Clarion	83%	83%	67%	50%	60%	67%	100%	100%
Crawford	50%	42%	42%	58%	64%	34%	100%	100%
Erie	58%	43%	53%	66%	73%	67%	31%	100%
Forest	0%	0%	0%	0%	100%	0%	100%	0%
Mercer	60%	40%	60%	60%	40%	80%	50%	50%
Venango	33%	67%	50%	33%	60%	50%	50%	50%
Warren	55%	50%	30%	20%	40%	70%	100%	100%

PREPAREDNESS

Equipment:

Support Vehicles, Trailers Other Specialty Equipment

- MMSS - Trailers (with equipment) (3)
- Cell on Wheels (COW) partnership with NWPAERG
- Motorola HT1250 Radios, 403-470, 1-4W
- MSEC 18 - Medical Surge Equipment Cache
- Honda Generators (3) portable "red" generators
- Canberra MRAD113 Mini Radiac; Pocket Radiological Monitor
- Victoreen 190 Radiation Detector
- Radio, Portables - Kenwood, TK372GK1 SK, UHF w/ accessories
- Radio, Portables - 800mhz
- Millennium Masks
- Level C Personal Protective Equipment Suits
- 10 Man Tents
- Radio, Base - 800 Mhz
- Base Station Radio - 400 Mhz
- Radio, VTAC - 800 Mhz - VEHICLE MOUNTED
- Trailer, MCI - Car mate CM 816C-CT
- Trailer, EMS Strike Team Support Services
- Radio, VTAC - 800 Mhz - PORTABLE
- Portable Comm-Pac (Wi-Fi)
- Portable Misting Fans
- Crowd Control Stanchions
- Portable Ventilators
- Life Jacket (USCG Type II, III, V, Inflatable vest)
- 70kw Trailer Generator
- Heavy Duty Trailer Mover System
- HC Global DB Handheld Radios
- Typhoon Fans, floor fans
- 175,000 btu Propane Heaters
- Technical Rescue Helmets
- Water Rescue Throwbags
- N-95 Respirators
- 8 kw Electric light tower, (3) light stands
- Power washer – heater
- Traffic safety cones and first aid signs
- Warehouse storage container system (rental)
- P-25 Portable Radio (Erie County System)
- EMS Strike Team Uniforms and Supplies

Preparedness Vehicles:

- 1 2008 Chevrolet 3500HD turbo diesel
- 1 2014 Ford 3500 turbo diesel

Strike Teams:

- 3 Strike Teams (EmergyCare, Community Ambulance Service, Clarion Hospital EMS)

INTEGRATION/PARTNERSHIPS

- EMMCO West Regional Medical Advisory Committee (quarterly)
- EMMCO West Communications Committee integrated into Region NWPAERG task force Communications Committee.
- EMMCO West QI Committee (quarterly)
- EMMCO West CISM Team (bi-monthly)
- Participation at Volunteer EMS Alliance of Crawford County (monthly)
- NWPAERG (quarterly+) taskforce meetings
- NWPAERG Health and Medical Subcommittee (Bi-monthly)
- Warren Co. EMS Council (semi-monthly)
- Crawford county's multidisciplinary 5 - 10 year county-wide EMS system
Involving elected officials and EMS agency officials
- Participation in disaster drills and exercises throughout the region
- NWPA Healthcare Coalition
- Assisted BEMS with regional elected officials meetings regarding the EMS System crisis

Identified/Perceived Inter-Regional Trends

PERSONNEL

1. EMS personnel are continuing to expire at a greater rate than training programs are generating EMS graduates.
2. Several counties have only had one EMS certification program in the last three to five years.
3. EMS students enrolled in initial BLS certification programs are not following through the entire state certification process. Students are passing the state practical exam, but not completing the NREMT written examination.
4. Agencies are not taken advantage of EMSOF dollars earmarked for recruitment and retention efforts.
5. EMS Personnel may benefit from better health behaviors, nutrition and exercise.
6. EMS personnel are not being properly prepared to assume management or supervisory roles in EMS agencies.
7. Improving BLS skill competency for EMS providers

OPERATIONS

1. Call volumes historically increase while personnel and other resources are diminishing. EMS agencies are experiencing acute personnel shortages. EMS agencies have closed and there are additional EMS agencies on the verge of ceasing operations.
2. More and more BLS EMS agencies are becoming dual licensed as a BLS EMS agency and QRS.
3. Three counties, (Crawford, Erie, Warren), have had their county-wide staffing plans approved. Crawford and Erie have implemented their plans. Issues exist with the quality improvement efforts with overseeing the plans.
4. Participation in QI projects are in need of significant improvement.
5. BLS agencies continue to not take advantages of programs such as EPI Pens, Naloxone and CPAP.
6. PCR submission is now performed through the statewide Cloud PCR Bridge project.

PREPAREDNESS

1. All preparedness assets are now housed within buildings. Preparedness equipment and readiness status are being maintained.
2. Educated EW staff and EMS strike team personnel on the use of preparedness assets, i.e. 70 K generator.
3. EMMCO West continues to participate in NWPAERG and NWPA Healthcare Coalition meetings and activities.

INTEGRATION/PARTNERSHIPS

1. Interaction is needed with elected officials and municipal leaders.
2. It would be desirable to continue personal interaction with EMS personnel.

Goals and Tasks

PERSONNEL

Partner with agencies to promote and improve recruitment and retention of personnel

- Continue to recognize EMS providers and EMS agencies at the annual EMS Appreciation Dinner
- Continue EMS training scholarships and examination reimbursement. Use EMSOF Cat III and Cat VIII funding to support new BLS personnel in their initial certification programs and all initial certification levels for examination reimbursements. Approximately \$20,000 of EMSOF revenue annually supports this initiative.
- Assess the rationale of EMS providers not completing state examination process, once they have successfully completed the state practical examination.

Assess quality of EMS education and provide education accordingly.

- Conduct scheduled and unscheduled site visits that create opportunities for time with administrators, instructors, and students.
- Conduct evaluator education programming as needed.
- Conduct instructor and instructor enrichment programming as needed.

Evaluate gaps in training, assist with funding and work with training institutes to fill voids.

- Continue to monitor providers attempting/passing exams and make improvements in the process as identified.
- Continue to monitor certifications vs expirations.
- Pursue alternative/non-traditional forms of educational programming
- Meet with educational institutes and agencies to proactively plan strategically placed education programs. Form an educational advisory group to assist identify weaknesses and solutions to improve in the regional EMS educational system.
- Improve initial student preparation for the cognitive (written) examination through the use of a computer-aided examination. Initial project would acquire computers, software, and electronic technologies to establish the program. Coordination through the educational institutes.

Promote a diversified continuing education program that emphasizes quality patient care practices.

- Continue to provide continuing education programming with focus on basic practical skills. Integrate hands-on sessions at the annual educational symposium
- Provide additional educational programming opportunities through the annual educational symposium and satellite educational sessions. Financial support provided through EMSOF, tuition, and corporate sponsorships.

Assist BEMS, as requested, on the development of EMS continuing education programming and educational support.

- Assisting with the development of program material for the EMS registry system.

OPERATIONS

EMMCO West continues to be the primary liaison for coordination of the cloud PCR project between the vendor and primary users of the system.

- Provide customer service support to vendors, regional councils, and EMS agencies related to the operational interface aspects of the statewide PCR data bridge
- Provide support to regional EMS agencies through the distribution of electronic and paper data system reports
- Review EMS system performance parameters developed through the EMMCO West regional QI committee

Assist and educate EMS Agencies and personnel in the EMS System Act and Regulations

- Provide technical assistance to EMS Agencies via various methods for all inquiries related to the EMS System Act and Regulations.
- Work with additional counties to assist with response planning.
- Work with existing counties with approved response plans to assist with QI issues when applicable or when requested.
- EMMCO West board of directors will be meeting with county, regional, and state elected officials to identify issues and solutions to the EMS system crisis.
- Review SR 6 report and work with EMS system stakeholders to implement systemic solutions within the region
- Work with individual EMS agencies to identify solutions to recruitment and retention of personnel and resources
- Continue to support the dual licensing of EMS agencies as a BLS and QRS EMS agency.

Provide tools to assist agencies with quality improvement initiatives and increase participation

- Continue incentive programming for services who meet certain quality improvement benchmarks and recognize them at an annual EMS recognition event. Event financed through corporate sponsorships.
- Conduct standardized and regular performance audits consistent with NHTS and/or statewide performance initiatives.
- Work with BEMS and other EMS councils to develop a reliable and efficient data collection process and standard reporting mechanism.

Continue to improve the region's out of hospital cardiac arrest survival rates through educational and operational initiatives

- Oversee the regional CARES initiative that partners ALS EMS agencies with BLS EMS agencies. Goal is to improve the submission of rural – suburban cardiac arrest data.
- Assist regional EMS agencies with the entry of CARES data
- Collaborate with BEMS, CARES, and Cloud PCR vendor to integrate a seamless CARES data entry portal using the data from the statewide data bridge
- Promote high performance CPR at the service level
- Conduct hands only CPR campaigns and promotions for EMS agencies

PREPAREDNESS

- Maintain regional EMS strike team preparedness readiness.
- Utilize EMS strike team support members to assist with the maintenance of the preparedness assets.
- Conduct meetings with regional EMS strike teams leaders and personnel
- Maintain and update, as necessary, the Trauma Hal simulation manikins, per the manufacturer recommendations
- Communicate and coordinate regional program activities with the three Trauma Hal locations (Clarion Hospital, Sharon Regional Medical Center, and EmergyCare)
- Utilize the Trauma Hal simulation manikins to improve preparedness and prehospital education of EMS and healthcare personnel throughout the region
- Coordinate with regional and state preparedness leaders to organize tabletop, functional, and full scale EMS strike team exercises

INTEGRATION/PARTNERSHIPS

Promote the EMS system throughout the region by participating in community outreach initiatives.

- Identify other opportunities to provide hands only CPR training.
- Educate regional communication centers on the use of hands only CPR and assertive over the phone instructions for cardiac arrest management

Continue to support the regional CISM team and education through EMMCO West funded support.

- Promote CISM and Self Care practices for EMS personnel
- Provide support of regional CISM team and out-of-state CISM team partnership with the Chautauqua CISM team
- Provide education in group and peer CISM training
- Continue affiliation with the international CISM organization

Identify opportunities for greater outreach to elected officials. Consider conducting a meet and greet opportunity between EMS and elected officials.

Continue to support the regional safety initiatives for EMS providers and agencies

- Assess and identify the status of the CO monitors and replace monitors that have reached their life expectancy
- Continue to follow up on case by case incidents of CO monitor activations by EMS personnel