

**EMMCO West, Inc.**  
**EMS System Assessment 2017 - 2018**

**Inventory**

***PERSONNEL***

**Certified Personnel:**

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

**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

<b>FY</b>	<b>12-13</b>	<b>13-14</b>	<b>14-15</b>	<b>15-16</b>	<b>16-17</b>	<b>Net Gain/Loss</b>
<b>EMR</b>	-3	-15	134	21	-28	109
<b>EMT</b>	68	-87	-319	-69	-19	-426
<b>AEMT</b>				6	1	7
<b>Paramedic</b>	11	1	-100	-129	48*	-169
<b>PHRN</b>	4	7	-22	-31	16	-26
<b>PHPE</b>				4	0	4
<b>PHP</b>	0	4	10	-17	0	-3
<b>Total</b>	80	-90	-63	-222	18	-277
<b>Instructors</b>	-1	1	-11	1	4	-6

\* 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>
<b>Clarion</b>	2013	2	1		0
	2014	1	1		0
	2015	1	1		0
	2016	1	1	0	0
	2017	0	1	0	0
<b>Crawford</b>	2013	0	1		0
	2014	2	3		0
	2015	1	2		0
	2016	1	1	0	0
	2017	0	1	0	0
<b>Erie</b>	2013	7	1		3
	2014	2	8		2
	2015	4	5		1
	2016	3	4	0	1
	2017	2	3	0	0
<b>Forest</b>	2013	0	0		0
	2014	0	0		0
	2015	0	0		0
	2016	0	0	0	0
	2017	0	0	0	0
<b>Mercer</b>	2013	1	1		1
	2014	1	1		0
	2015	0	2		0
	2016	1	2	1	0
	2017	1	1	1	0
<b>Venango</b>	2013	0	0		0
	2014	0	0		0
	2015	0	1		0
	2016	1	0	0	0
	2017	1	1	0	0
<b>Warren</b>	2013	0	0		0
	2014	0	0		0
	2015	1	1		0
	2016	0	1	0	0
	2017	2	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
Classes	18	14	19	22	16	16
Candidates	312	142	280	356	240	292
Complete Program	238 (76.3%)	100(70.42%)	189 (67.5%)	272(76.4%)	168(70%)	217 (74.3%)
Pass Initial Practical	124 (52.1%)	26 (26%)	75 (39.68%)	97 (35.6%)	56(33.3%)	85
Pass Subsequent Practical	105 (41.1%)	54 (54%)	107 (56.61%)	140 (51.4%)	88(52.3%)	107
Total Pass Practical	229 (93.2%)	80 (80%)	182 (96.3%)	237(87.1%)	155(85.7%)	192 (88.4%)
Pass Written 1 <sup>st</sup> Attempt	183 (79.9%)	58 (72.5%)	76 (41.76%)	84 (35.4%)	104	39
Pass Written 2 <sup>nd</sup> Attempt	14 (6.1%)	6 (7.5%)	11	17 (7.1%)	23	7
Pass Written 3 <sup>rd</sup> Attempt	2 (0.9%)	0	3	5 (2%)	4	1
Pass Subsequent Written	4 (1.7%)	1 (1.25%)	4	0	0	0
Personnel Certified*	203 (85.3%*)	65 (65%*)	94 (49.73%*)	106(39%*)	131 (78%*)	47**

\* % 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, 2017)**

ALS Ground	22
Air Ambulance	1 + 1 licensed in another region
BLS	48
QRS	58 (strictly QRS)
Rescue agencies at Vehicle and Machinery Operations Level	2
Rescue agencies at Vehicle and Machinery Basic Level	4
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	32
BLS CPAP agencies	26
Naloxone agencies (licensed)	20
EMSC agencies	2

**Breakdown of Vehicles:**

Air	6
ALS Transport	116
ALS Squad	27
CCT	4
BLS	65
QRS	102(just QRS vehicles not an ambulance)
QRS Container	14

**PCR Records Submitted by Year: Project**

2007	2009	2011	2012	2013	2014	2015	2016*	2017*
106,598	109,082	111,125	115,306	117,759	116,326	114,912	102,000	118,649

\* 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	2.18 minutes
Median	1.63
Mode	1
90th Percentile	5

**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	7.37 minutes
Median	9
Mode	5
90th Percentile	14.78

**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	28.44
Median	15
Mode	8
90th Percentile	18.68

**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	56.77%
Capnography	84.73%

### 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 2010 but only 83% participated in 2011 and 2012

COUNTY	% participating							
	2010	2011	2012	2013	2014	2015	2016	2017
Clarion	100%	83%	83%	67%	50%	60%	67%	100%
Crawford	76%	50%	42%	42%	58%	64%	34%	100%
Erie	53%	58%	43%	53%	66%	73%	67%	31%
Forest	0%	0%	0%	0%	0%	100%	0%	100%
Mercer	80%	60%	40%	60%	60%	40%	80%	50%
Venango	100%	33%	67%	50%	33%	60%	50%	50%
Warren	80%	55%	50%	30%	20%	40%	70%	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 with Heaters
- Radio, Base - 800 Mhz
- Base Station Radio - 400 Mhz
- Radio, VTAC - 800 Mhz - VEHICLE MOUNTED
- GPS, handheld
- Trailer, MCI - Car mate CM 816C-CT
- Radio, VTAC - 800 Mhz - PORTABLE
- Portable Comm-Pac (Wi-Fi)
- Portable Misting Fans
- Crowd Control Stanchions
- Portable Ventilator
- Life Jacket (USCG Type II, III, V, Inflatable vest)
- 70kw Trailer Generator
- 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
- EMS strike team support trailer system
- Traffic safety cones and first aid signs
- Warehouse storage container system (rental)

**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+)
- NWPAERG Health and Medical Subcommittee (Bi-monthly)
- Warren Co. EMS Council (semi-monthly)
- Tionesta Ambulance Service – Forest County government
- 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 –
  - Erie International Airport Drill
  - Allegheny College Active Shooter Drill
  - Titusville Area Hospital Drill
  - Sharon Regional Hospital Drill



## **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. It is believed that 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. Two EMS agencies are ceasing BLS ambulance service operations 1/1/18. 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. Warren County's plan went operational Jan. 1, 2017. Issues exist with the quality improvement efforts with overseeing the plans.
4. Participation in QI projects are in need of significant improvement.
5. Many BLS agencies continue to not take advantages of programs such as EPI Pens, Naloxone and CPAP.
6. PCR submission by EMS agencies should be improved with the implementation of 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 meetings and activities.

### ***INTEGRATION/PARTNERSHIPS***

1. More 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. Seek funding partners.
- 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.
- 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***

Implement a statewide PCR bridge based program to manage PCR data. Project to be operational by Jan 1, 2018. EMMCO West will be the primary liaison for coordination of the project between the vendor and primary users of the system.

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.
- Conduct an EMS Solutions Roundtable to discuss EMS system issues impacting the regional EMS response system. Involve the regional EW QI committee and transporting EMS agencies throughout the EMMCO West region. EMMCO West will sponsor the initial luncheon roundtable in January 2018.
- 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

- Implement a regional CARES initiative that partners ALS EMS agencies with BLS EMS agencies. Goal is to improve the submission of rural – suburban cardiac arrest data.
- Promote high performance CPR at the service level
- Conduct hands only CPR campaigns and promotions

## ***PREPAREDNESS***

- Maintain regional EMS strike team preparedness readiness. Offer education and meetings with EMS strike team leaders.
- Further design and implement the regional EMS strike team support trailer system.
- Utilize EMS strike team support member to assist with the maintenance of the preparedness assets.

### ***INTEGRATION/PARTNERSHIPS***

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

- Identify other opportunities to provide hands only CPR training.
- Identify opportunities for greater outreach to elected officials. Consider conducting a meet and greet opportunity between EMS and elected officials.