

EMMCO West, Inc.
EMS System Assessment 2016-2017

Inventory

PERSONNEL

Certified Personnel:

FY	10-11	11-12	12-13	13-14	1/6/16
FR/ER	202	190	187	172	306
EMT	2198	2278	2346	2259	1940
Paramedic	551	561	572	573	473
PHRN	94	108	112	119	97
HP	17	15	15	19	29
TOTAL	3062	3152	3232	3142	2845
Instructors	112	98	97	98	87

Active Personnel: 1445 * individual certification numbers reflected in PCR data for 2015. This is down from 1504 from 2014.

*We have no method to measure how many of the 1445 may include personnel whose home region is other than EMMCO West. Most QRS do not submit PCR data therefore any QRS personnel not somehow affiliated with another agency will not be reflected either

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 10-11 to present

	Fiscal Year				Net Gain/Loss
	11-12	12-13	13-14	14-15	
ER	-12	-3	-15	136	106
EMT	80	68	-87	-248	-187
Paramedic	10	11	1	41*	63
PHRN	14	4	7	-4	21
HP	-2	0	4	12	14
Total	94	80	-90	-63	17
Instructors	-14	-1	1	-11	-25

** large number of paramedic reciprocity from a New York EMS agency*

Expired Practitioner Activity Assessment: EMMCO West evaluated the level of activity of personnel who expired in the first 2 quarters of 2015. Criteria included continuing education activity and presence on PCRs (note that activity at the QRS level is not able to be measured as QRS are not required to submit electronic PCR data)

EMT		Paramedic	
<i>0 con-ed hours</i>	51.22%	<i>0 con-ed hours</i>	97.44%
<i>0-11 con-ed hours</i>	30.08%	<i>0-17 con-ed hours</i>	2.56%
<i>12-23 con-ed hours</i>	18.7%	<i>18-36 con-ed hours</i>	0
<i>Were Present on 20+ PCRs</i>	11.38%	<i>Were Present on 20+ PCRs</i>	0

Certification Programs (see map)

	<u>YEAR</u>	EMR	EMT	Para
Clarion	<u>12</u>	1	1	0
	<u>13</u>	2	1	0
	<u>14</u>	1	1	0
	<u>15</u>	1	1	0
Crawford	<u>12</u>	0	2	0
	<u>13</u>	0	1	0
	<u>14</u>	2	3	0
	<u>15</u>	1	2	0
Erie	<u>12</u>	0	7	6
	<u>13</u>	7	1	3
	<u>14</u>	2	8	2
	<u>15</u>	4	5	1
Forest	<u>12</u>	0	0	0
	<u>13</u>	0	0	0
	<u>14</u>	0	0	0
	<u>15</u>	0	0	0
Mercer	<u>12</u>	1	4	1
	<u>13</u>	1	1	0
	<u>14</u>	1	1	0
	<u>15</u>	0	2	0
Venango	<u>12</u>	1	0	0
	<u>13</u>	0	0	0
	<u>14</u>	0	0	0
	<u>15</u>	0	1	0

Warren	<u>12</u>	0	1	0
	<u>13</u>	0	0	0
	<u>14</u>	0	0	0
	<u>15</u>	1	1	0

Certification Program Success Rates EMR & EMT (still a significant number of candidates in the testing process for 2015 as of 1/20/15)

	2012	2013	2014
Classes	18	14	19
Candidates	312	142	280
Complete Program	238 (76.3%)	100 (70.42%)	189 (67.5%)
Pass Initial Practical	124 (52.1%)	26 (26%)	75 (39.68%)
Pass Subsequent Practical	105 (41.1%)	54 (54%)	107 (56.61%)
Total Pass Practical	229 (93.2%)	80 (80%)	182 (96.3%)
Pass Written 1 st Attempt	183 (79.9%)	58 (72.5%)	76 (41.76%)
Pass Written 2 nd Attempt	14 (6.1%)	6 (7.5%)	11
Pass Written 3 rd Attempt	2 (0.9%)	0	3
Pass Subsequent Written	4 (1.7%)	1 (1.25%)	4
Personnel Certified	203 (85.3%*)	65 (65%)	94 (49.73%*)

* % of those completing program

2014 Pass Rate by Level: # passed/# completing program (with this and above table, some individuals may still be in the testing process)

ER	EMT	Paramedic
30%	31.2%	100%

2015 Pearson View Testing Sites: Erie, PA & Clarion, PA. 82.3% of population are within 1 hour drive of testing sites

OPERATIONS

EMS Agencies

ALS Ground	20
Air Ambulance	1 + 1 licensed in another region
BLS	50
QRS	59 (strictly QRS)
Rescue agencies at Vehicle and Machinery Operations Level	3
Rescue agencies at Vehicle and Machinery Basic Level	2
Rescue agencies at Vehicle and Machinery Advanced Level	1
Swiftwater Rescue agencies Level 3a	2
Swiftwater Rescue agencies Level 4a	1
BLS EPI Pen agencies	29
BLS CPAP agencies	24
Naloxone agencies (licensed)	7
EMSC agencies	2

Breakdown of Vehicles:

ALS Transport	99
ALS Squad	12
ALS Squad Reserve	2
BLS	79
QRS	77 + 2 container
Air	6

PCR Records Submitted by Year: Project

2005	2007	2009	2011	2012	2013	2014	2015
98,895	106,598	109,082	111,125	115,306	117,759	116,326	116,509*

* Estimated. Still working with a several agencies and vendors to fill a few holes

Call Percentage by Time of Day

Monday – Friday 8AM-4PM 36.81%

Monday – Friday 7AM-7PM 51.64%

Monday – Friday (all day) 75.15%

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 minutes
Median	1
Mode	1
90 th 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	9 minutes
Median	8
Mode	6
90 th Percentile	17

County Snapshot:

	Clarion	Crawford	Erie	Forest	Mercer	Venango	Warren
Population	39,155	87,376	280,294	7,631	115,195	53,907	40,885
Mi ²	609	1,038	1,558	431	683	683	898
Density	64	84	180	18	169	79	46
ALS (stations)	5	2	5	0	4	3	1
BLS (stations)	1	11	25	1	1	4	10
QRS	3	16	6	0	11	16	7
Providers	182	499	1233	20	345	298	272
Certification Programs	2	5	11	0	2	0	0
Personnel Registration Expired (2015)	21	283	115	0	49	35	24

Time to Defibrillation*: Defined as time from dispatch to time of defibrillation

Source: PCR Data

Inclusion Criteria:

- **Type of Service Requested is 911 Response(Scene) or Intercept**
- **Cardiac Arrest Present is Yes, Prior to EMS Arrival**

Exclusion Criteria: non-ground EMS agencies

90 th Percentile	0:36 min
Mean	0:15 min
Median	0:12 min
Mode	0:07 min

*limited but regionally reflective dataset

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
Clarion	100%	83%	83%	67%	50%	60%
Crawford	76%	50%	42%	42%	58%	64%
Erie	53%	58%	43%	53%	66%	73%
Forest	0%	0%	0%	0%	0%	100%
Mercer	80%	60%	40%	60%	60%	40%
Venango	100%	33%	67%	50%	33%	60%
Warren	80%	55%	50%	30%	20%	40%

PREPAREDNESS

Equipment:

Support Vehicles, Trailers Other Specialty Equipment

- MMSS - Trailer (with equipment)
- Cell on Wheels (COW) partnership with NWPAERG
- Motorola HT1250 Radios, 403-470, 1-4W
- MSEC 18 - Medical Surge Equipment Cache
- Honda Generator
- Canberra MRAD113 Mini Radiac; Pocket Radiological Monitor
- Victoreen 190 Radiation Detector
- Radio, Portable - Kenwood, TK372GK1 SK, UHF w/ accessories
- Radio, Portable - 800mhz
- Millennium Mask
- 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
- Patient Tracking Scanners
- Portable Ventilator
- Life Jacket (USCG Type II)
- Life Jacket (USCG Type III)
- Life Jacket (USCG Type V)
- Life Jacket (USCG Inflatable vest)
- 70kw Trailer Generator
- HC Global DB Handheld Radio
- Typhoon Fans
- 175,000 btu Propane Heaters
- Technical Rescue Helmets
- Water Rescue Throwbags
- N-95 Respirators

Preparedness Vehicles:

- 1 2004 Chevrolet 2500HD turbo diesel
- 1 2008 Chevrolet 3500HD turbo diesel
- 1 2014 Ford 3500 turbo diesel

Strike Teams:

- 5 Strike Teams

INTEGRATION/PARTNERSHIPS

- PEHSC BOD (quarterly)
- PEHSC EMS Information Taskforce (chair) (2-3x/year)
- PEHSC Practical Evaluation taskforce and various other standing and dynamic PEHSC and DOH committees and taskforces (Regs). (monthly)
- EMMCO West Regional Medical Advisory Committee (quarterly)
- EMMCO West Communications Committee integrated into Region NWPAERG task force Communications Committee.
- EMMCO West Transportation Committee (2-3x/year)
- EMMCO West QI Committee (quarterly)
- EMMCO West CISM Team (bi-monthly)
- Participation at Volunteer EMS Alliance of Crawford County (monthly)
- Mercer County EMS Managers Roundtable (semi annually)
- NWPAERG (monthly+)
- NWPAERG Health and Medical Subcommittee (Bi-monthly)
- Northwestern Pa Region Area Maritime Security Subcommittee
- Crawford Co. Active Aging Coalition (as requested)
- Clarion Co. EMS Council (quarterly)
- Warren Co. EMS Council (semi-monthly)
- NWPA Career Link partnership (annually)
- Crawford Co. LEPC (5x/year)
- Crawford Co. Safe Kids (as requested)
- Crawford Co. Active Aging (monthly)
- National Registry
- Erie County CERT (as requested)
- Erie Regional Medical Reserve Corp (as requested)

Identified/Perceived Inter-Regional Problems***PERSONNEL***

1. In some cases, EMS personnel are expiring at a greater rate than training programs are generating EMS graduates. Statistics also show that 53% of personnel are not active thus it can be expected that the net loss is actually worse.

2. Although the system gained Emergency Responders by granting certification to previously defined Ambulance Attendants, these personnel were already in the system and not previously accounted for.
3. Several counties have only had one EMS certification program in the last three years.
4. Agencies have historically 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.

OPERATIONS

1. Call volumes historically increase while personnel and other resources are diminishing.
2. Agencies continue to miss calls and are not participating in a broader staffing plan. However, there has been an increase in contractual staffing and other collaboration efforts. Additionally, Crawford County is operating under the first staffing plan approved by the Bureau of EMS. Warren County's plan has been verbally approved and Erie County's plan is awaiting Bureau of EMS approval.
3. Participation in QI projects needs significant improvement.
4. Many BLS agencies continue to not take advantages of programs such as EPI Pens, Naloxone and CPAP despite funding assistance.
5. PCR completion and submission continues to be problematic for some agencies.
6. Statistical analysis has shown that PCR vendors are still allowing users to enter bad data or independent of user input have output problems.
7. Statistical analysis has shown that EMS providers are regularly miscoding fields and mis-typing times in PCRs.
8. Data elements, identified as needed for QI projects, are often found to not be part of the PA dataset. Planning should drive QI, QI should drive selection of data elements and analysis of data should drive revisiting planning. This should occur at the state level.

PREPAREDNESS

1. There is a perceived need to continue to investigate staffing alternatives for EMS Strike Team program.
2. There has been a decrease in the amount of formal communication between Emergency Preparedness Specialists.

INTEGRATION/PARTNERSHIPS

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

Goals and Tasks

PERSONNEL

Assist EMS agency improve their management and administrative practices through educational programming.

Identify demographics of personnel attending current management training.

- Continue to provide the EMS Leaders of Tomorrow program at the EMMCO West conference. \$1000.00
- Utilize a survey to identify types of personnel attending EMS Leaders of Tomorrow training.

Increase prospective leader participation in EMS Leaders of Tomorrow training to assist EMS agencies with succession planning

- Target prospective leaders for EMS Leaders of Tomorrow training

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

- Continue to visit EMS agencies during EMS week.
- Continue to recognize various providers, agencies and newly certified personnel at EMS Appreciation Dinner. Seek funding partners.
- Continue EMS training scholarships.

Assess health, wellness and physical capabilities of EMS personnel.

- Partner with health facilities and other agencies to identify health, wellness and physical assessment tools
- Identify opportunities to make health, wellness and physical assessment tools
- Identify motivations for EMS providers to participate in health, wellness and physical assessment tools as well as other healthy lifestyle choices.

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 exit evaluations of students.
- Conduct evaluator reliability evaluations and enrichment programming pending funding and DOH direction
- Conduct instructor enrichment programming

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

- Continue to monitor providers 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

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

- Continue to provide continuing education programming with focus on basic practical skills.

OPERATIONS

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.

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 event.
- 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

- Promote high performance CPR at the service level
- Conduct 2-3 hands free CPR campaigns at various sporting events

PREPAREDNESS

- Encourage training in incident command and initial management of large scale incidents.

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.