

ALLENSTOWN & PEMBROKE  
**TRI-TOWN**

Emergency Medical Service

**Paramedic Ambulance Service**



## Monthly Director's Report

*for the month of*

December 2017

## PREFACE

Tri-Town Emergency Medical Service was created in June of 2012 and began operation in January of 2013. Prior to that date the Tri-Town Volunteer Emergency Ambulance Service was a non-profit entity that once provided ambulance service to the Towns of Allenstown, Hooksett and Pembroke. The Town of Hooksett now provides ambulance services through its fire department.

Under New Hampshire RSA 53-A, the Towns of Allenstown and Pembroke entered into an inter-municipal agreement to create a public entity to provide ambulance service for both communities. A Board of Directors is the governing body for the Service in accordance with this agreement. The ambulance is housed at the Pembroke Safety Center. The Service is staffed 24 hours per day, 7 days per week at the *Paramedic* Level. The cost of the Service is partially subsidized by funding provided from each town on a percentage basis in accordance with the provisions of the agreement. The Service also bills patients through a third party billing firm making up the remainder of the revenues that pay for the cost of operations.

Tri-Town EMS utilizes Concord Hospital as its Medical Resource Hospital and provides Emergency Medical Care under the coordination and guidance of Dr. David Hirsch. As part of the Medical Resource Hospital Agreement (MRH), Tri-Town EMS receives many of the medications and supplies the Service needs from Concord Hospital.

This report was created on January 3, 2018, by the Service Director, Christopher Gamache BS, NRP. This document contains data that was obtained from the New Hampshire Department of Safety, Bureau of Emergency Medical Service patient care reporting website, [www.NHTEMSIS.org/elite](http://www.NHTEMSIS.org/elite), where all patient records for the Service are maintained. Tri-Town EMS is dispatched by Concord Fire Alarm who maintains all the times associated with the Service's EMS Incidents. Financial data has been provided by the Town of Pembroke and by ComStar Ambulance Billing.



## SECTION 1: EMERGENCY MEDICAL SERVICE (EMS) ACTIVITY:

1.1 Total Number of EMS Incidents / Request for Services:	120
December 2016:	73
Allenstown, NH: ( <i>Current 3yr aver: 43.88%</i> )	44 36.7%
December 2016:	34
Pembroke, NH: ( <i>Current 3yr aver: 56.12%</i> )	68 56.7%
December 2016:	34
Barnstead, NH (Incl. Center Barnstead):	0 0.0%
Bow, NH:	0 0.0%
Chichester, NH	0 0.0%
Concord, NH:	3 2.5%
Deerfield, NH:	0 0.0%
Epsom, NH:	4 3.4%
Hooksett, NH:	1 0.7%
1.2 Total Number of EMS Incidents Assigned to Tri-Town EMS:	107 89.2%
1.3 Total Number of EMS Incidents where Mutual Aid was GIVEN:	8 6.7%
1.4 Total Number of EMS Incidents where Mutual Aid was RECEIVED:	13 10.8%
December 2016:	3
Concord Fire Department:	11
Epsom Fire Department:	2
Hooksett Fire Department:	0
DHART (Air Medical Transport):	0
Bow Fire Department:	0
1.5 Total Number of Patients Transported to the Hospital:	78 65.0%
Catholic Medical Center (CMC), Manchester, NH	10 12.9%
Concord Hospital, Concord, NH	50 64.1%
Elliot Hospital, Manchester, NH	18 23.0%
1.6 Number of Patients who Refused Transport to the Emergency Department:	15 12.5%
1.7 Total Number of EMS Responses that Resulted in Another Disposition:	14 11.7%

## SECTION 2: EMS RUN DATA: (H:MM:SS)

2.1 Average Reaction Time:	0:58
2.2 Average Response Time:	5:17
2.3 Average On-Scene Time:	19:58
2.4 Average Transport Time:	19:22
2.5 Average Time the Ambulance was Unavailable at the Hospital:	19:34
2.6 Average Total Time On Task: (Tone to Back in Service or Available)	1:05:09



## 2.7 TIMES OF CALLS (*Time of Day & Day of the Week*)

(TIME)	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
0000-0259	1	0	0	0	1	0	2
0300-0559	1	0	0	2	1	3	1
0600-0859	6	3	4	1	3	3	1
0900-1159	2	5	3	1	3	2	5
1200-1459	4	1	0	2	1	1	2
1500-1759	2	3	2	2	2	2	2
1800-2059	0	2	0	1	3	1	7
2100-2359	3	4	4	4	1	1	4
<b>TOTALS:</b>	<b>19</b>	<b>18</b>	<b>13</b>	<b>13</b>	<b>15</b>	<b>13</b>	<b>24</b>

## 2.8 INCIDENT by DISPATCH REASONS

<b>Incident Complaints Reported by Dispatch (EMD CODE)</b>	<b>Number of Incidents</b>
Falls (17)	14
Sick Person (26)	13
Chest Pain (Non-Traumatic) (10)	11
Medical Alarm (32)	10
Breathing Problem (6)	8
Unconscious / Syncope (31)	7
Diabetic Problem (13)	6
Seizure (12)	5
Abdominal Pain/Problem (1)	4
Cardiac Arrest / Death (9)	4
Altered Mental Status (26)	3
Back Pain (Non-Traumatic) (5)	3
Hemorrhage / Laceration / Bleeding (21)	3
MVC / Transportation Incident (29)	3
Unknown Problem / Person Down (32)	3
Carbon Monoxide / Hazmat / Inhalation / CBRN (8)	2
Lift / Invalid Assist	2
Pain (26)	2
Traumatic Injury (30)	2
Alcohol Intoxication	1
Assault (4)	1
Automated Crash Notification (34)	1
Dizziness (26)	1
Heart Problem / AICD (19)	1
Overdose / Misuse of Medications / Poisoning (23)	1
Psychiatric / Behavioral / Suicide Attempt (25)	1
Stroke / CVA (28)	1



## 21.9 PROCEDURES PERFORMED by EMS PERSONNEL

<u>Procedure Name</u>	<u># of Times Procedure Performed</u>
Vascular: IV / Extremity Vein Catheterization	87
Cardiac: 12 Lead ECG Obtained	72
Assessment: Patient Assessment	45
Electrocardiographic Monitoring	45
Cardiac: ECG Monitoring (4 Lead or Defib Pads)	19
Respiratory: BVM / Bagged Ventilations (via Mask)	2
Respiratory: etCO2 Digital Capnography	2
Respiratory: NPA / Nasopharyngeal Airway Insertion	2
Soft Tissue: General Wound Care	2
Assessment: Stroke Exam	1
General: Patient Warming (Warm Pack or General)	1
Movement: Movement via Extrication Device (Full Length)	1
Respiratory: CPAP	1
Respiratory: Suction Airway	1
Vascular: IO / Intraosseous Cannulation	1
Vascular: IV / Venous Access via Pre-Existing Access	1

## 2.10 MEDICATIONS ADMINISTERED BY EMS PERSONNEL

<u>Medication Name</u>	<u># of Times Medication was Administered</u>
Normal Saline	20
Ondansetron / Zofran	13
Oxygen	12
Nitroglycerin	9
Naloxone / Narcan <sup>TM</sup>	7
Aspirin	6
Fentanyl	4
Dextrose / Glucose (Oral)	3
Dextrose / D10% (IV)	3
Epinephrine 1:1,000 (Epi 1mg/ml)	2
HYDROMorphone / Dilaudid	2
Adenosine / Adenocard	1
Diltiazem / Cardizem <sup>TM</sup>	1
Glucagon	1
Metoprolol / Lopressor	1
Midazolam / Versed	1
Sodium Bicarbonate	1





### SECTION 3: TRI-TOWN EMS PERSONNEL:

In December 2017, the Service's Board of Director's accepted the resignation of one (1) per diem EMT. The Service received one (1) per diem EMT and one (1) per diem AEMT which will be presented to the Board in January. Two (2) of these resignations are from employees who were inactive with the Service.

The Service hired one (1) per diem Paramedic who completed their orientation and ride time in December. Furthermore, the Service is pursuing three (3) applications for per diem positions, two (2) EMT's and one (1) AEMT.

The current staffing level is as follows:

3.1	Full Time Employees:	4	Paramedics				4	
3.2	Part Time Employees:	1	Paramedic	1	AEMT	1	EMT	3
3.3	Per Diem Employees:	3	Paramedics	7	AEMT	6	EMT	16
3.4	TOTAL WORK FORCE:	8	Paramedics	8	AEMT	7	EMT	23

3.5 Director's Hours – (24 hours on Ambulance, 16 hours for Administrative per week)

Amb. Hours:	125	Admin Hours:	64	Hol. / Paid Time Off:	11	Details	0
Required:	96	Required:	53	Available:	19		

3.6 Injury Report:

☒ No Injuries to Report

Number of Lost Time Incidents: 0      Number of Lost Time Hours: 0

Complaint Number: N/A      Incident Type: N/A

Complaint Number: N/A      Incident Type: N/A

### SECTION 4: EQUIPMENT:

4.1 New Equipment Purchased:

☐ No Equipment Purchases

- |   |       |            |
|---|-------|------------|
| 1. Mermaid Refrigerator for Ambulance 8   | Cost: | \$3,429.00 |
| 2. Service Agreement on Stryker Load Sys. | Cost: | \$5,091.20 |
| 3.  | Cost: |            |

4.2 Equipment Maintenance:

☐ No Equipment Maintenance to Report

- |                    |                            |
|--------------------|----------------------------|
| 1. Equipment Name: | Physio Control Life Pak 15 |
| Maintenance Item:  | Annual PM                  |
| 2. Equipment Name: |                            |
| Maintenance Item:  |                            |

4.3 Durable Medical Equipment (DME) Failure

☐ No Failures to Report

- |                      |   |               |          |
|----------------------|---|---------------|----------|
| 1. DME Name:         | Stryker Load System   | Failure Date: | 12/11/17 |
| Failure Description: | Fails to release stretcher  |               |          |
| Failure Reported To: | <input checked="" type="checkbox"/> Manufacturer <input type="checkbox"/> Chairman of the BOD <input type="checkbox"/> Medical Director   |               |          |
|                      | <input type="checkbox"/> NH EMS <input type="checkbox"/> Federal Agency <input type="checkbox"/> No Reporting Required  |               |          |
| DME Disposition:     | <input checked="" type="checkbox"/> Repaired <input type="checkbox"/> Replaced <input type="checkbox"/> Disposed <input checked="" type="checkbox"/> Completed <input type="checkbox"/> Pending |               |          |



## SECTION 5: CORRESPONDENCE WITH OTHER HEALTHCARE & PUBLIC SAFETY AGENCIES

- |   |  |
|---|--|
| 1. <i>AMERICAN MEDICAL RESPONSE (AMR)</i>                   | 1. Contacted AMR to have an agreement with them to be used as a ride site for EMS courses.   |
| 2. <i>CAPITAL AREA PUBLIC HEALTH NETWORK (CAPHN)</i>        | 1. Met on 12/13/17 with topics including the NH Preparedness Conference, P.O.D. meetings and forms used, Vaccination efforts by the public health network, Sheltering, Narcan distribution, Citizen Corp and Public Health projects. |
| 3. <i>CONCORD FIRE DEPARTMENT</i>                           | 1. Contract to use Concord Fire Department as an EMS ride site for the Service's AEMT course.  |
| 4. <i>CONCORD HOSPITAL</i>                                  | 1. Service was advised of the 1000ml 0.9% Normal Saline Shortage.<br>2. Coordinate the Service's new paramedic's security badge and Pyxis Access.  |
| 5. <i>NEW HAMPSHIRE BUREAU of EMERGENCY MEDICAL SERVICE</i> | 1. Service License Renewed.<br>2. Approval for Surgical Cric Protocol.<br>3. Information pertaining to 2017 EMS Protocol Rollout procedures.   |
| 6. <i>PEMBROKE, Town of</i>                                 | 1. Joint Loss Safety Committee Meeting   |

## SECTION 6: FINANCIALS

6.1	REVENUES		
	6.1.1	Ambulance Billing (Based on ComStar Reports)	\$18,398.10
	6.1.2	Details	\$0.00
	6.1.3	Paramedic Intercept	\$0.00
	6.1.4	Administrative Fees (PCR requests, etc)	\$6,000.00
	6.1.5	Educational Charges (CPR, EMS related courses)	\$0.00
	6.1.6	Town of Allentown Payment	\$0.00
	6.1.7	Town of Pembroke Payment	\$0.00
	6.1.8	Donations	\$0.00
	6.1.9	<b>TOTAL REVENUE for MONTH</b>	<b>\$24,398.10</b>
	6.1.10	NOTES:	EMS in the Warm Zone Grant Received (\$6,000.00)



6.2	EXPENSES			
6.2.1	Payroll #1	Employee Compensation		\$18,606.07
6.2.2	Payroll #2	Employee Compensation		\$16,732.27
6.2.3	Payroll #3	Employee Compensation		\$17,332.27
6.2.4	Over Time	(included in Payroll #1 & #2 Figures)		\$7,021.44
6.2.5	EMS Supplies			\$1,630.82
6.2.6	Equipment			\$7,021.44
6.2.7	Office Expenses	Phone, Copier, Supplies, etc.		\$1,651.04
6.2.8	Insurances	Health, Dental, Disability, Life, W/C, Unemployment & Liability		\$3,844.91
6.2.9	Fuel			\$593.52
6.2.10	Veh. Maintenance			\$0.00
6.2.11	Uniforms			\$72.84
6.2.12	OTHER	(Legal Fee, ComStar Fee, Training & Eval)		\$7,031.14
6.2.13	<b>TOTAL EXPENSES for MONTH</b>			<b>\$74,516.32</b>
6.2.14	NOTES:	<i>Printed Protocol books for staff, paid for portable radio's for Amb 3, service agreement on Amb 8 Stryker Load System.</i>		

6.3	AMBULANCE BILLING SUMMARY <i>for the MONTH</i>			
	Payer	# of Transports	Gross Charges	Adjusted Charges
6.3.1	Medicare	41		\$22,505.15
6.3.2	Medicaid	9		\$1,676.00
6.3.3	BC/BS, Anthem	8		\$9,070.00
6.3.4	Cigna	1		\$1,300.00
6.3.5	Other Comm. Ins	15		\$16,670.00
6.3.6	Self Pay, No Ins.	4		\$3,930.00
6.3.7	<b>TOTALS</b>	78	\$88,940.00	\$55,151.15
<i>Medicare Allowable Rates: BLSE: \$372.49 ALS1E: \$442.34 ALS2E: \$640.22 Mileage: \$10.79</i>				
<i>NH Medicaid Rates: BLS: \$145.00 ALS: \$175 Mileage: \$2.60</i>				
<i>Tri-Town EMS Rates: BLS: \$750.00 ALS1: \$1,000.00 ALS2: \$1,250.00 Mileage: \$20.00</i>				
NOTES:	All charges are subject to adjustment as payer information is confirmed and contractual obligations are applied.			

6.4	AMBULANCE BILLING SUMMARY <i>for the YEAR (Charges &amp; Balance are Service Estimates)</i>			
	MONTH	ADJUSTED CHARGES	RECEIVED	BALANCE
6.4.1	January	\$41,620.09	\$31,993.64	\$9,626.45
6.4.2	February	\$39,006.91	\$31,921.82	\$7,085.09
6.4.3	March	\$38,121.23	\$29,999.30	\$8,121.93
6.4.4	April	\$43,194.85	\$31,483.51	\$11,711.34
6.4.5	May	\$43,407.32	\$30,489.50	\$12,917.82
6.4.6	June	\$41,745.72	\$32,926.20	\$8,819.52
6.4.7	July	\$45,563.57	\$33,292.84	\$12,270.73
6.4.8	August	\$48,409.61	\$34,784.01	\$13,625.60





6.4.9	September	\$54,380.52	\$41,814.75	\$12,565.77
6.4.10	October	\$58,999.28	\$40,573.34	\$18,425.94
6.4.11	November	\$41,271.96	\$24,316.03	\$16,955.93
6.4.12	December	\$55,151.15	\$3,349.80	\$51,801.35
6.4.13	<b>TOTALS</b>	<b>\$550,872.21</b>	<b>\$366,944.74</b>	<b>\$183,927.47</b>

6.5	AMBULANCE BILLING SUMMARY <i>for</i> PAST YEARS				
		<b>YEAR (\$/XPORT)</b>	<b>ADJUSTED CHARGES</b>	<b>RECEIVED</b>	<b>BALANCE</b>
(11 Months) (613 xports)	6.5.1	2014 (\$445.35)	\$379,988.31	\$273,002.18	\$106,986.13
(700 xports)	6.5.2	2015 (\$451.56)	\$426,711.50	\$316,094.32	\$110,617.18
(725 xports)	6.5.3	2016 (\$498.75)	\$505,940.11	\$361,591.01	\$144,349.10
	6.5.4	<b>TOTALS</b>	<b>\$1,312,639.92</b>	<b>\$950,687.51</b>	<b>\$361,952.41</b>

## SECTION 7: QUALITY ASSURANCE/QUALITY IMPROVEMENT & TRAINING

7.1	TRAINING REPORT				
7.1.1	JEMS Monthly Article	Stop! In the Name of Blood: Pharmacology to the Tune of Anticoagulant Reversal. 0.25cr	EMPLOYEE PARTICIPATION	12/25	
7.1.2	EMS World Article	Autism Awareness for First Responders 0.25cr	EMPLOYEE PARTICIPATION	12/25	
7.1.3	MONTHLY SKILLS	Completed – 8/25; Partial Complete – 0/25			
7.1.4	MONTHLY SHIFT TRAINING	Takotsubo Syndrome 0.25Cr	EMPLOYEE PARTICIPATION	6/25	
7.1.5	NCCP TRAINING	Cancelled Due to Weather			
7.1.6	NEXT NCCP TRAINING	ALS Equipment Review and Pediatric Rhythm Disturbances	By: Stephanie Locke, IC, NRP	January 23, @1830 at the Allenstown Fire Station.	
7.1.7	ORIENTATION	Andrew Merelman completed the Service’s Orientation and required ride time.			

### 7.2 GENERAL UPDATES

7.2.1 The ability to transmit data collected by the LP15 on calls and transmit that data to the cloud to be included into the PCR, has proven beneficial. Better compliance with inserting ECG monitoring strips and 12-Lead ECG into the PCR has been noticed.



7.2.2 Paramedic Ryan Hornblower accurately an acutely ill and critical Congestive Heart Failure patient and aggressively treated with CPAP and a Nitroglycerin Infusion. Additionally the narrative was well written such that the patient's response to the treatments were well documented.

7.2.3 Concord Hospital has made the transition to CERNER. This has resulted in a delay in obtaining face sheets from the hospital. The Service has designated a full time employee to collect these face sheets when they arrive and insert the billing information in to the PCR. This has not resulted in any noticeable delay in billing.

7.2.4 2017 New Hampshire Patient Care Protocols have been released and all staff has been instructed to complete the on-line protocol rollout before or during their next assigned shift.

### 7.3 QUALITY ASSURANCE (QA) / CONTINUOUS QUALITY IMPROVEMENT (CQI) ACTIVITIES

7.3.1. The Service continues to remind employees to enter the Cardiac Monitor / 12-Lead, medications and other procedures into the procedures section of the ePCR.

7.3.2. Employees are reminded to add all billing information and to sign their PCR's.

7.3.3. No significant QA issue discovered in December 2017.

## SECTION 8: VEHICLE MAINTENANCE

8.1	Ambulance 3 (79A3)		
8.1.1	Mileage		84,450
8.1.2	Preventative Maintenance		None
8.1.3	Vehicle Repair(s)		None
8.2	Ambulance 8 (79A8)		
8.2.1	Mileage		20,150
8.2.2	Preventative Maintenance		None
8.2.3	Vehicle Repair(s)		None

## SECTION 9: DIRECTOR'S COMMENTS AND RECOMMENDATIONS

9.1 AMBULANCE BILLING: With the help of ComStar, I performed an analysis on the billing data for 2014, 2015, 2016, 2017(incomplete) and for the period of 6/1/2016 through 5/31/2017 and specifically looked at Collection Rates for each payer group (Medicare, Medicaid, Private Insurance and Self Pay), looked at the ALS/BLS rates, and the revenue per transport for each period. Considered the rate increases that were done in 2015 and again in 2016 and estimated the effects of the new rates. All this data was interpreted to support my recommendation of 1. Not sending residents of our primary service with Medicare to collections who cannot pay the amount they are responsible for and 2. to reduce the billable amount for residents within our service area who do not have any insurance to Medicare Allowable for their transport. With the new rates, assuming no other increases, such as no increase in the overall number of transports,



the analysis shows the Service will still increase the overall revenue thus easing the burden on the tax payers as well as the patients who reside in the primary service area.

The Service was notified by ComStar that due to a 2011 Federal Act, Medicare rates will decrease by 2% in 2018

9.2 ACTIVE SHOOTER GRANT: The Service received the sum of \$6,000.00 from the "EMS in the Warm Zone" Grant. The Service staff still need to complete the on-line operations training provided by the State. This training is not available.

9.3 EQUIPMENT/AMBULANCE CHECKLIST: Vehicle and Durable Medical Equipment check list was finalized and commenced use as of January 1<sup>st</sup>, 2018.

9.4 AMBULANCE 3 RADIO's: Took delivery and the radios have been placed into service.

9.5 AMBULANCE 8 REFRIGERATOR: Refrigerator ordered.

9.6 APPLICANTS: One (1) of the four (4) applicants were hired, the other three (3) were still in processing during the month of December.

9.7 EMR COURSE: EMR course completed.

9.8 PRIMEX: With the exception of 2 employees, Primex trainings were completed.

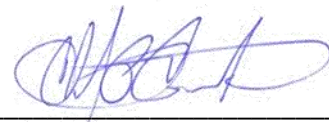
9.9 NEW HAMPSHIRE EMS PATIENT CARE PROTOCOLS: The protocols were released in mid-December and the Service had protocol books printed for the staff, the station and for the ambulances. Staff were instructed to complete the on-line rollout before or during their next scheduled shift. This was completed.

9.10 EMS LICENSE: NH EMS Transport License was renewed and permission to utilize the Surgical Cricothyrotomy Protocol was continued.

## SECTION 10: ADMINISTRATION

- |   |                              |
|---|------------------------------|
| • Chairman of the Board, Allenstown Town Administrator: | Shaun Mulholland             |
| • Pembroke Town Administrator:                          | David Jodoin                 |
| • Allenstown Fire Chief:                                | Chief Shawn Murray           |
| • Pembroke Fire Chief:                                  | Chief Harold Paulsen         |
| • Allenstown Public Member:                             | Michael O'Mara               |
| • Pembroke Public Member:                               | Robert "Bob" Bourque         |
| • Tri-Town EMS Employee Member:                         | Hearshell VanLuven, NRP      |
| • Tri-Town EMS Service Director:                        | Christopher Gamache, BS, NRP |
| • Tri-Town EMS Assistant Director:                      | Stephanie Locke, I/C, NRP    |

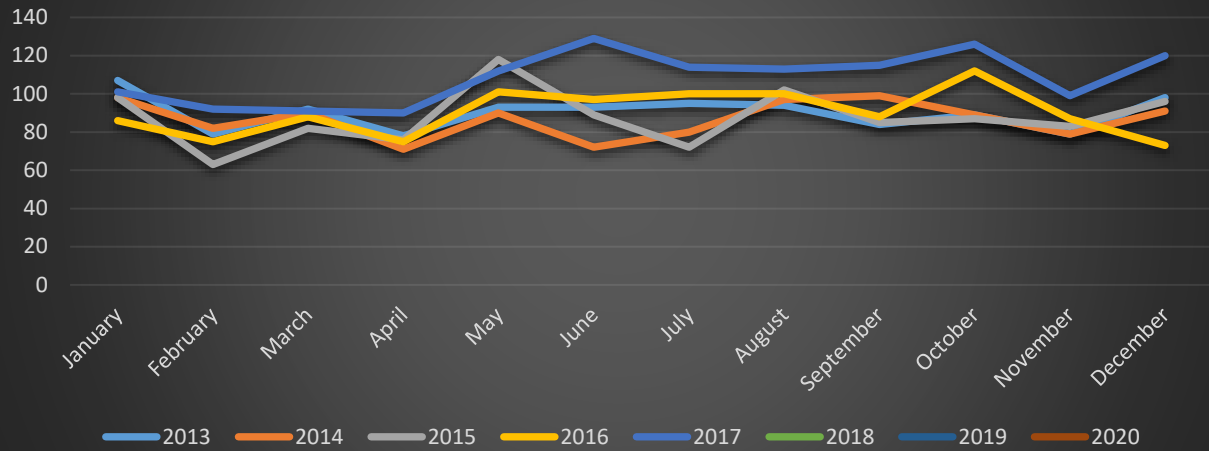
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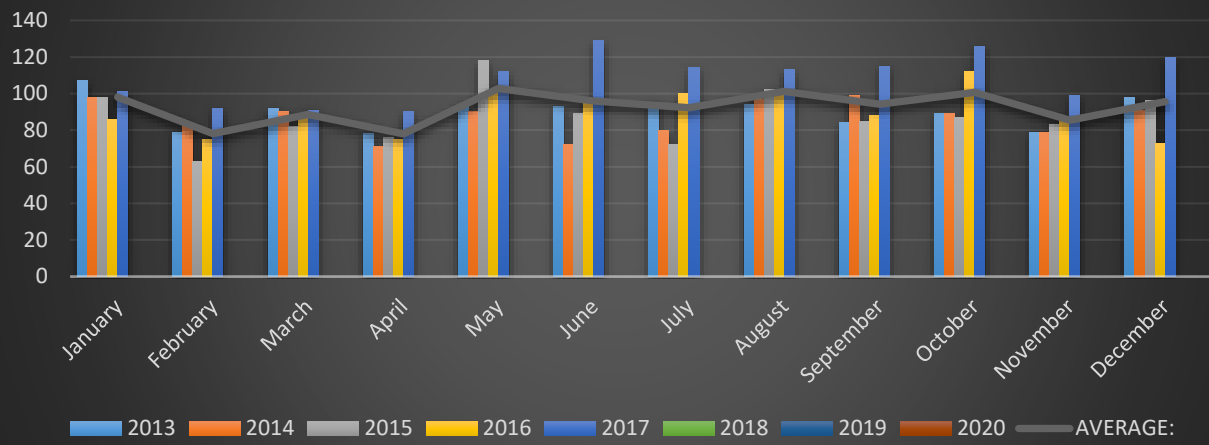
Christopher Gamache, Service Director



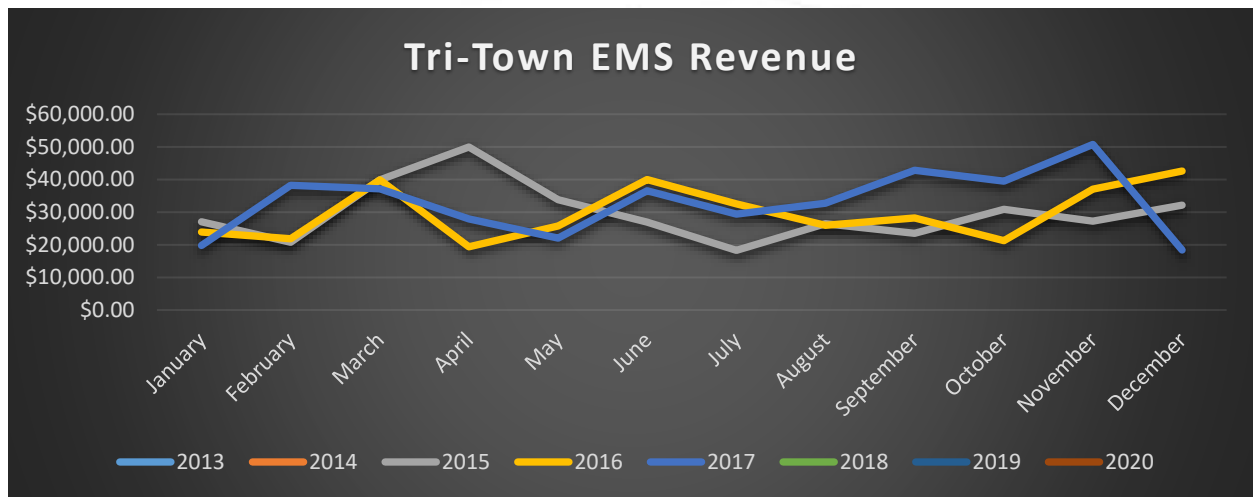
## TRI-TOWN EMS CALL VOLUME



## TRI-TOWN EMS CALL VOLUME









### Cummulative Monthly Revenue (recieved) by YEAR

