

MEDIC HEALTH

Consultant Report

Submitted to

The Town of Huntington

-

**Huntington Community First Aid Squad
System Review**

September 29, 2015

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Introduction

The Fire Chiefs from several of the volunteer departments that provide ambulance service to the residence of the town of Huntington, approached town officials about the increase in requests from Huntington Community First Aid Squad (HCFAS) to respond to calls in the squad's service area. The Chiefs observed this increase in requests beginning in 2013. Despite efforts by HCFAS to address their concerns, the Fire Chiefs reported that the trend was continuing into 2014.

Responding to these concerns, the Town of Huntington engaged Medic Health to assess the operational practices of Huntington Community First Aid Squad (HCFAS) and provide recommendations as to how the Squad can reduce the number of calls that are turned over as mutual aid requests to neighboring Fire Departments and Ambulance Squads.

This report presents the findings of the system review of Huntington Community First Aid Squad (HCFAS) as it relates to deployment methodologies, deployment strategies, operational measurements or metrics and operational improvement initiatives. The aim of the report is to succinctly convey the critical findings of the consultants' analysis and provide strategies for reducing the number of calls that are turned over to mutual aid providers.

Study Approach and Method

In June 2014 the consultants began working with staff and representatives of Suffolk County Fire Rescue and Emergency Services, Huntington Community First Aid Squad and the Town of Huntington to gather and analyze information. The operational review involved a mixed method of data collection including:

- **Semi-structured interviews** – the consultant traveled to Huntington, New York and met with key members of HCFAS's leadership to discuss core operational areas and quality improvement efforts.
- **Document review** – Staffing plans, procedures and other documents were submitted and reviewed.
- **Analysis of historical response data** – encounter level incident and other operational data common to EMS organizations were compiled and analyzed.

All of the qualitative and quantitative data were analyzed and synthesized and the finds are presented below.

Assessment and Findings

Huntington Community First Aid Squad is one of 12 volunteer fire departments and ambulance squads providing emergency medical services to the Town of Huntington's residents and visitors. Squad was formed in 1967 and has served the community through the generosity, dedication and willingness of a cadre of volunteer medical professionals. HCFAS is the only all volunteer ambulance provider serving the town.

The Squad is organized as a nonprofit organization led by a board of directors elected from within the membership. Daily operations are managed through a number of appointed operational officers and day captains. (Neither community stakeholders nor town officials participate in the governance of the organization.)

The squad provides this service at no charge to the patient. The squad does not bill the patient's commercial insurance company, Medicare, Medicaid who typically reimburse providers for providing medical care and transportation to their subscriber. Operations are funded directly by the taxpayers and residents of the Town. In calendar year 2014 the Town of Huntington allocated the squad with four-hundred-seventy-nine dollars (\$479) per patient transport. This calculation is based on the number of unique events directed to HCFAS through the Suffolk County 9-1-1 system.

Routine reporting of typical EMS measurements and metrics to key stakeholders is limited. The Squad participates in routine meetings of agencies providing EMS services to the town, though it is reported that attendance is inconsistent. The Squad could be more proactive in sharing information about the quality and operational performance of their service.

System Design Related Limitations to the Analysis

The EMS system within Suffolk County and the Town of Huntington is highly fragmented. A patient's call to 9-1-1 is answered by the Suffolk County Police Department at the county's 911 center. The caller is then passed to the Suffolk County Fire Rescue and Emergency Services (FRES) for medical triage. FRES identifies and contacts the agency within whose response district the patient is calling. In most cases, both FRES and the responding agency maintain electronic records tracking typical segments of an EMS incident.

The consultants requested and received a series of files from Suffolk County Fire Rescue and Emergency Services and Huntington Community First Aid Squad with data extracted from their respective computer aided dispatch systems. (A listing of the data requested by the consultants is provided in the appendices to this report.)

The data provided by both entities contained a majority of the fields requested by the consultant, though each had their limitations and lacked some key data points. These limitations included, but are not limited to the following:

- Neither dataset provided contained information about the time the caller initially contacted the 9-1-1 system through the primary public safety answering point (PSAP).
- Each entity assigns a unique run or event number to the request for medical assistance. A common incident number does not appear to be generated and shared between FRES and HCFAS.
- There was variation in the timestamp(s) between the datasets. The variation appears to be largely associated with the lack of an electronic interface between the two CAD systems and a lack synchronization between the system’s respective time clocks.
- A significant number of records lacked key timestamps or entries.
- The definition of what the timestamp within the dispatch and enroute fields represent differ between the two agencies.

Cumulatively, these limitations make it difficult to align with certainty the information within the data sets and accurately calculate the total time elapsed from the patient's call to 9-1-1 and the arrival of the ambulance on scene.

All parties, Suffolk County Fire Rescue and Emergency Services, Huntington Community First Aid Squad and the Town of Huntington, look to the county’s dataset as the primary 911 record. In keeping with that guidance, when possible the consultants used the dataset provided by FRES to complete their quantitative analysis. When key elements were missing from the FRES dataset, the consultants relied on the dataset provided by the Squad. (All analysis is based on data from calendar year 2014.)

Both dataset(s) contain a number of calls where two or more units responded to the same incident. The HCFAS dataset contained a greater percentage of calls with a multiple unit response than the county’s data. The multiple responses to the same incident were filtered from each dataset. The HCFAS dataset was also filtered to adjust for ambulance standbys and first responder or chief car responses. There are 834 additional unique runs within the HCFAS dataset than the official record maintained by the county. A breakdown of the lines of data and the unique identifiers associated with type of vehicle is detailed in the following figure, Figure 1.

Figure 1

Calendar Year 2014	FRES	HCFAS
Lines of data	4,950	7,642
Unique Run or Event # - Ambulance	4,638	5,472
Unique Run or Event # - First Responder or Chief Car	0	1,334

Both entities were confident in the accuracy of their respective datasets. Typically, these differences in volume between the call-taking (9-1-1 agency) and responding agencies are related to calls for assistance directly to the responding agency’s 10-digit phone number. According to HCFAS leadership, the squad receives all their calls through the 9-1-1 system.

Without a common reference number used to track unique events between the agencies it is difficult to identify and isolate the reason(s) for the differences between the two datasets.

Temporal Call Demand Pattern Analysis

Requests for emergency medical services occur in statistically predictable hourly and day-of-week patterns. A community’s demand for ambulance service varies by the hour of the day and by the day of the week. Generally speaking, across the country ambulance services are the busiest between 09:00 to 22:00.

A temporal call demand pattern analysis allows an organization to determine the number of ambulance staffing for each hour of the week with a 90% reliability standard. This analysis allows an EMS agency to adjust staffing patterns to match the expected number of ambulance calls originating in community. The Operational Officers at HCFAS do examine reports which provide some insight to the number of calls received by day of week as well as the number of calls received by time of day. However, this information is not of sufficient granularity to identify the historical call demand patterns upon which to make statistically accurate ambulance staffing decisions.

The consultant completed a temporal call demand pattern analysis using 2014 data. Figure 2 identifies the number of staffed ambulances required for each of the one hundred-sixty-eight (168) hours within a week. The calculations were based on an average task time of 60 minutes, a conservative measurement. Task time is defined as the time interval between the time the call is received until the ambulance is cleared and available.

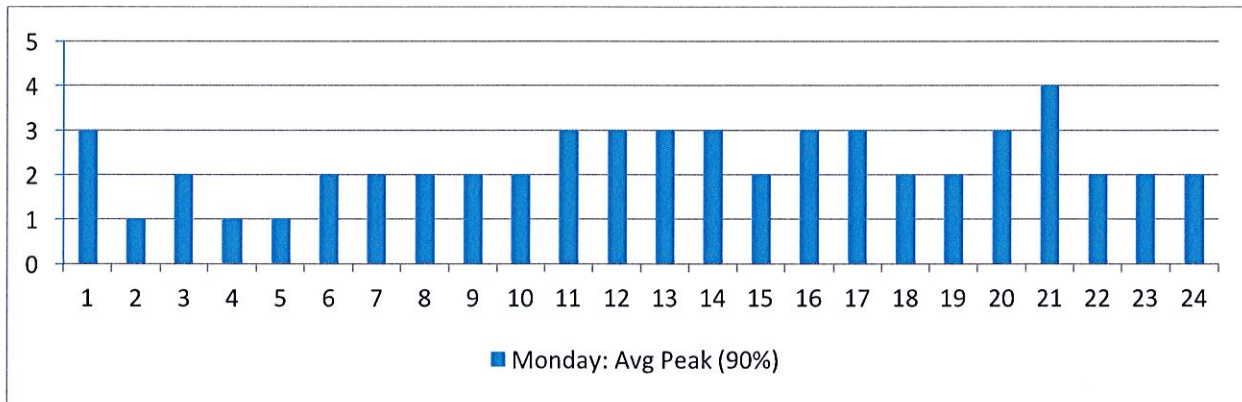
Figure 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Monday	3	1	2	1	1	2	2	2	2	2	3	3	3	3	2	3	3	2	2	3	4	2	2	2
Tuesday	3	1	1	1	1	1	1	2	2	2	3	3	3	3	2	3	3	3	3	3	3	2	2	2
Wednesday	1	2	1	0	1	2	2	2	2	2	2	2	3	4	3	3	3	3	3	2	2	3	2	2
Thursday	2	2	3	1	1	1	2	2	1	3	2	2	2	2	3	4	4	2	2	2	3	2	2	2
Friday	1	2	2	2	1	2	1	2	2	2	3	3	3	2	2	2	3	4	3	3	3	3	2	3
Saturday	2	3	2	1	1	1	3	2	2	3	2	1	3	3	3	3	3	4	3	2	2	2	2	2
Sunday	2	2	1	1	2	2	1	1	2	2	3	3	5	3	2	2	3	2	2	3	2	2	2	2

The demand pattern analysis was calculated using the 2014 FRES data file. We reviewed the number of requests for ambulances observed each hour of the day for each day-of-the-year. The analysis did not identify substantial or consequential variation in call volume based on seasonality. The statistical calculation used by the consultants is a Stoutian Measurement known as average peak. The calculation represents approximately the 90th percentile of demand. Additional adjustment may be required to accommodate other factors such as desired response time reliability, traffic patterns, road infrastructure and other unique system anomalies.

Figure 3 is an example of graphical depiction of the of demand pattern analysis illustrating the number of ambulances required to meet 90% reliability by hour-of-the-day for Monday. Similar illustrations for each day of the week are included in the appendices.

Figure 3



The demand pattern analysis provides Huntington Community First Aid Squad with information to better align the scheduling of ambulances with the needs of the community. The yellow squares within figure 2 highlight the time of the day and days of the week where current staffing levels (a minimum of two (2) staffed ambulances) may not be sufficient to cover the community’s pattern of demand. Similarly, the table identifies potential opportunities to reduce the number of planned resources.

Staffing and Deployment

Huntington Community First Aid Squad services the town with a minimum of two (2) on-duty ambulance crews based at the station 24 hours a day, seven days a week. The on-duty crews are Squad members who have volunteered a portion of their day to help staff an ambulance. The Squad aims to schedule 35 shifts of two ambulances during a typical week. Daytime shifts are four-hours in duration beginning at 7 AM, 11 AM, 3 PM, 7 PM. The overnight shift is comprised of an eight-hour shift beginning at 11 PM and ending at 7 AM the following morning.

The consultant reviewed a master template schedule provided by HCFAS. The template listed the member’s commitment(s) to staff one or more of the aforementioned shifts on a weekly basis. The master was dated and reflective of member coverage commitments as of June 23, 2015. A copy of the schedule is included as an attachment to this report.

The template showed member commitments that met or exceeded the resources needed to staff the desired two ambulances during most evening and morning shifts. The commitments for daytime and overnight coverage varied considerably. Six of the thirty-five scheduling slots, seventeen percent (17%) of the planned shifts have insufficient members committed to the shifts to staff the desired two ambulances.

Figure 4 illustrates the number of ambulances the Squad can field during each planned shift based on member commitments. A green cell means the Squad has sufficient member commitments to deploy up to three (3) ambulances. A yellow cell indicates sufficient staffing commitments to deploy two (2) ambulances. A cell highlighted in red indicates member commitments are sufficient to staff one (1) or fewer ambulances.

Figure 4

Shift	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
07:00 am – 11:00 am	Green	Green	Green	Green	Green	Red	Green
11:00 am – 3:00 pm	Green	Yellow	Yellow	Yellow	Yellow	Green	Yellow
3:00 pm – 7:00 pm	Green	Yellow	Green	Green	Green	Red	Red
7:00 pm – 11:00 pm	Green	Green	Green	Green	Green	Green	Yellow
11:00 pm – 07:00 am	Red	Yellow	Green	Green	Green	Red	Red

There are a number of members who have elected to forgo choosing to commit to a regularly scheduled weekly shift. The day captains and a scheduler work to fill the vacancies in the template by contacting “Company eight (8)” members to see if they're available to cover a shift. According to the template provided to the consultant, there are 29 members available to help fill the vacancies. If there are still holes in the weekly schedule, the other members are contacted to see if they can fill the shift. Additionally, the day captain is available to staff an ambulance if needed during the day.

Members available for coverage but unable to dedicate the hours at the station may be assigned a first responder vehicle to use during the shift. The member goes about his/her day and will respond directly to a call. S/he will provide medical care and staff the ambulance as necessary.

It is difficult to gauge HCFAS’s success at filling the open slots in scheduled template as well as the adherence rate by those who have committed to a weekly shift. The Squad tracks does not track nor measure planned to actual staffing. The planned to actual staffing measurement allows an organization to track and monitor its ability to actually staff the ambulance shifts and provide the coverage as identified in the temporal call demand pattern analysis. Similarly, HCFAS does not track when a member is unable to fulfill the entire duration of his/her shift.

When call volume exceeds the number of available ambulances, the dispatcher alerts the members of the need for additional ambulances and/or specific roles needed to assemble an ambulance crew. If a member is available s/he will respond to the station. When this occurs, the response time of the ambulance may be delayed as the member must first travel to the station prior to responding to the patient's bedside.

Sixty-eight percent (68%) of the Squad’s two-hundred-eighty-three (283) members reside within the Squad’s response district. The remaining thirty-two percent (32%) live farther away from the station - (a) twenty-four percent (24%) living within the Town of Huntington but outside the Squad’s response district (b) nine percent 9% residing both outside the town and the Squad’s response district.

Recruitment, Orientation and Onboarding

The recruitment, orientation and onboarding of new members to the organization is steeped in tradition. The process is long and requires a considerable investment of time without knowing whether or not they will be accepted into the Squad. Once accepted, members are required to become versatile in a number of roles within the organization rather than targeting membership selection based on individual wants and organization needs. For example, all members must go through dispatch training regardless as to whether they intend to fulfill the role of a dispatcher.

Operational Metrics and Measurements

HCFAS tracks and produces basic EMS specific reports for internal use. The leadership team shared a number of these reports with the consultant during the on-site interview. Unfortunately, much of the data collected and reviewed is not at granular enough level to be useful for either learning about the service performance or initiating improvement. Some key operational and clinical metrics do not appear to be tracked. EMS specific metrics should include, but are not limited to measuring:

- Response Time Performance
- Transport Rate
- Scheduled to actual unit hours
- Lost unit hours
- Missed call / calls turned over to mutual aid/roost cause analysis
- Call processing times including: Dispatch processing, unit chute, travel, on-scene, transport, at destination and mission times
- Refusals resulting in second call in 24 hours

Response Time Performance

The time from which the caller reaches the 9-1-1 operator until the ambulance arrives on the scene is one of the measurements used to measure the effectiveness of an EMS agency. HCFAS neither routinely publishes this information for the general public nor provides a response time performance report to town officials.

EMS response times can be measured and reported in a variety of different formats. Most EMS systems have migrated to a fractile response time measurement. The measurement informs key stakeholders how often, as a percentage of calls, the ambulance responds to calls within a defined period of time. Typically, the measurement is based on the arrival of the first transport capable ambulance.

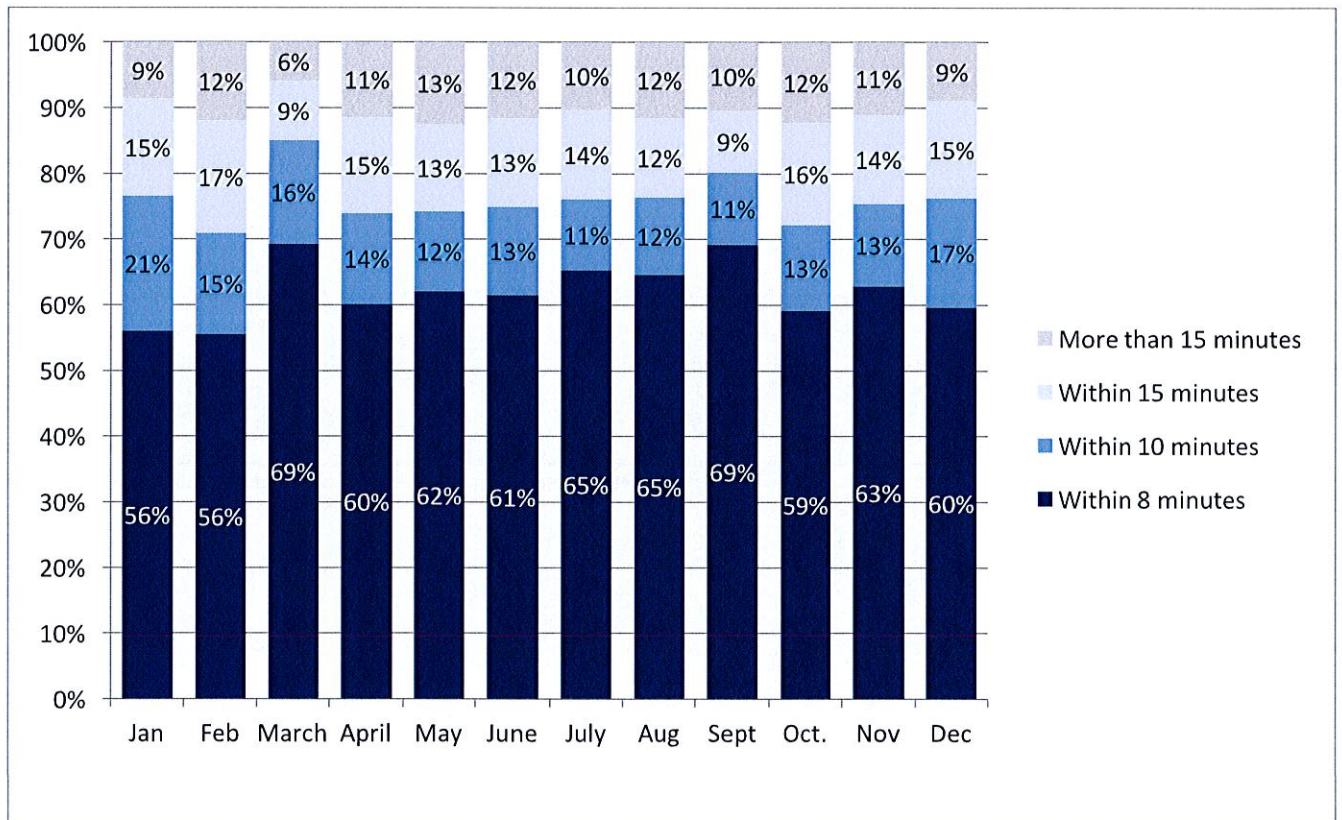
The consultant calculated the percentage of calls the Squad responded to within eight, ten, fifteen and greater than fifteen minute intervals for each month in 2014. The HCFAS dataset was used in the analysis. The time captured as the dispatch and enroute time(s) in the FRES dataset were essentially the same as enroute time documented by HCFAS. The Squad confirmed the timestamp contained in the “Time of Alarm” field is the time the call was received from FRES by the squad’s dispatch center. Based on this information, the response time measurement illustrates the time from which FRES contacts and asks HCFAS to respond to an event and the ambulance arrives on-scene.

In 2014 Huntington Community First Aid Squad’s fractile response time measurements are as follows:

- 62% of the calls an ambulance was on-scene within 8:00 minutes of call receipt
- 76% of the calls an ambulance was on-scene within 10:00 minutes of call receipt
- 89% of the calls an ambulance was on-scene within 15:00 minutes of call receipt
- 11% of the calls an ambulance required more than 15 minutes to arrive on-scene after call receipt

Figure 5 illustrates the percentage of calls the ambulance was on-scene within for each of the measurement points each month of 2014.

Figure 5



Although a nation wide response time expectation has yet to be standardized, a number of influential groups have recommended standards and provided guidelines for consideration. One such group is the Commission on Accreditation of Ambulance Services (CAAS). The accrediting organization’s Standard 201.05.02 establishes a total response time standard of eight minutes and fifty-nine seconds for life threatening calls. There are similar standards for response time reporting, monitoring and performance improvement initiatives. A copy of the associated standards is included in the appendices.

Mutual Aid Requests by Huntington Community First Aid Squad

The concept of mutual aid was designed to allow surrounding EMS and fire departments to assist each other during times of unusual demand for services, mass casualty situations or disasters. Volunteer based organizations also resort to mutual aid when they are unable to muster sufficient resources to staff an ambulance to respond to a call.

A central repository of mutual aid usage by volunteer agencies across the country does not exist for comparison. The “no response report” generated by Suffolk County provides some comparison to HCFAS’s reliance on mutual aid providers to other agency’s mutual aid utilization rates within the county. Based on the number of requests, HCFAS’s relies on adjacent fire departments to assist with calls more frequently than the adjacent fire departments rely on HCFAS combined. During the first five months of calendar year 2015, HCFAS requested mutual aid to cover ambulance calls 41 times in comparison to the 23 requested by the adjacent fire departments.

Figure 6 illustrates the number of mutual aid responses Cold Spring Harbor, Greenlawn, Melville, Dix Hills and Halesite Fire Departments collectively provided to HCFAS, by hour-of-the-day and day-of-the-week, for the first seven months in 2014. A table listing each of the mutual aid responses tabulated below is included in the appendices.

Figure 6

	11 pm - 7 am						7 am - 11 am				11 am - 3 pm				3 pm - 7 pm				7 pm - 11 pm					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Monday											1						2							
Tuesday			1	2			2		1				1											
Wednesday								2		1	1	1		1	1						1		1	
Thursday													1	1				1						
Friday	1		1								1	1					1							
Saturday			1		1						1			1	1		1			3	1		1	1
Sunday	1		1				1		1							1								

There is commonality between requests for mutual aid responses and the variance between scheduled ambulances and the demand pattern analysis.

Recommendations

The findings of this review resulted in the identification of a number of recommendations for the Huntington Community First Aid Squad and the Town of Huntington to consider. The key areas of action opportunities are:

1. Adopting and using common EMS operational and business practices
2. Using key performance measurements, metrics and benchmarks
3. Membership, on-boarding and orientation

For ease of reference the specific recommendations are listed below by entity.

Huntington Community First Aid Squad

1. Modify and adjust current ambulance deployment plan to accommodate findings from the demand pattern analysis. Consider adding a third (3) scheduled ambulance during peak patterns of demand.
2. Track desired, scheduled and actual unit hour / shifts covered. Trend the information to identify shifts that are routinely difficult to cover and implement action plans to provide coverage.
3. Track and trend runs which are handled by in-station crews vs. members responding from outside the station.
4. Stagger the start and stop times of the units so all shift changes are not occurring simultaneously.
5. Restructure the recruitment, onboarding and orientation process with the overall aim of reducing the time investment a prospective member needs to make prior to becoming a member in the Squad.
6. Assess the value of the current processes, rules and regulations associated with membership and various roles within the squad. Change processes associated with a historical bias versus a tangible business reason.
7. Consider adding role specific membership avenues.
8. Employ dedicated staff to provide coverage for shifts proven too difficult to staff with Squad members on a routine basis.

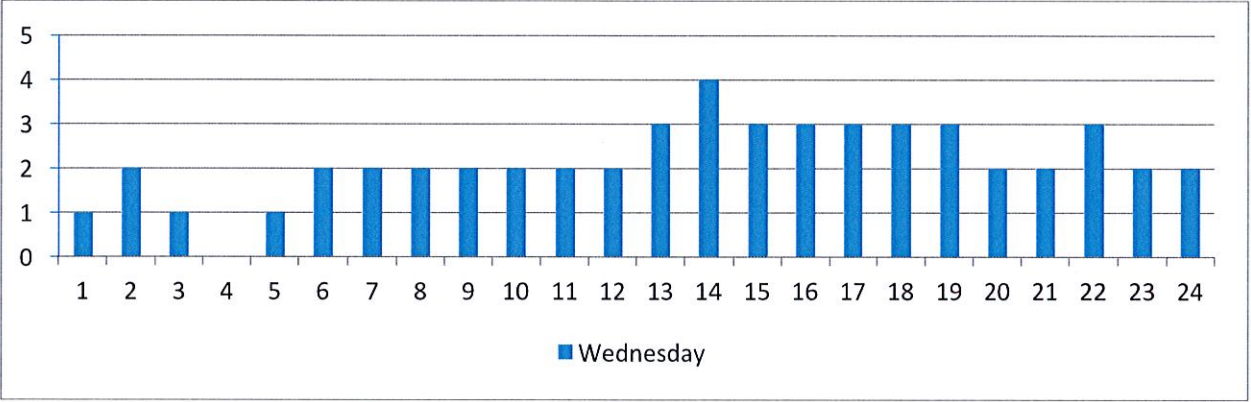
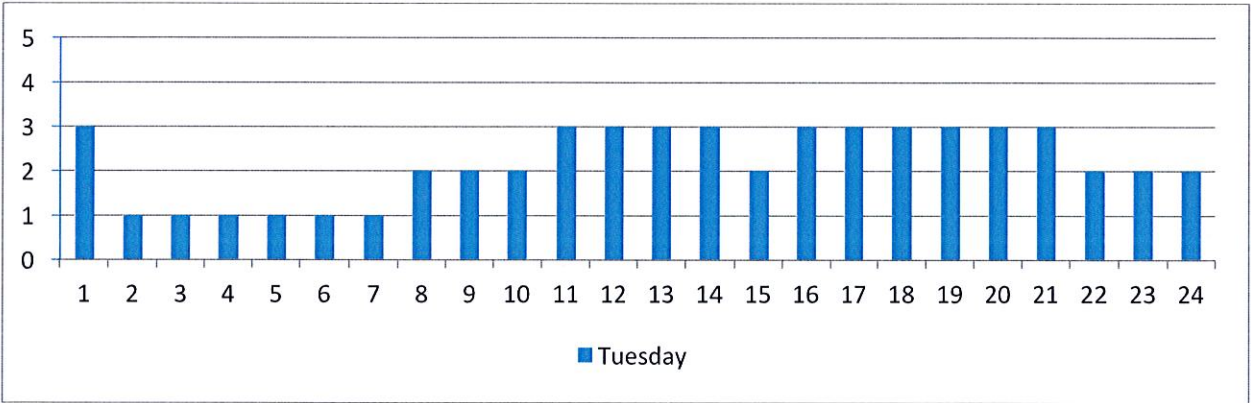
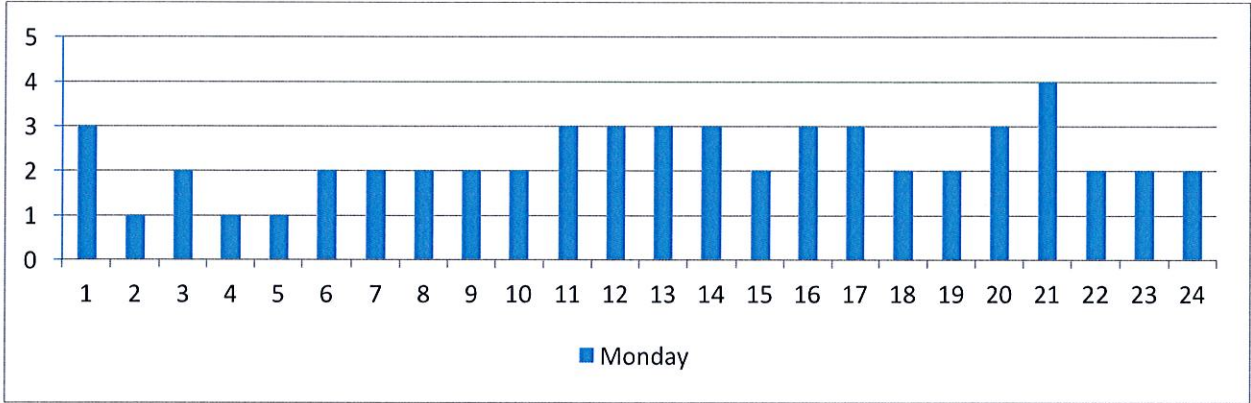
Town of Huntington

1. As a requirement of funding, the Town of Huntington, should mandate the submission of monthly performance measurements from the contractee. At a minimum, Huntington Community First Aid Squad should provide the following measurements:
 - a. Fractile response time performance reports

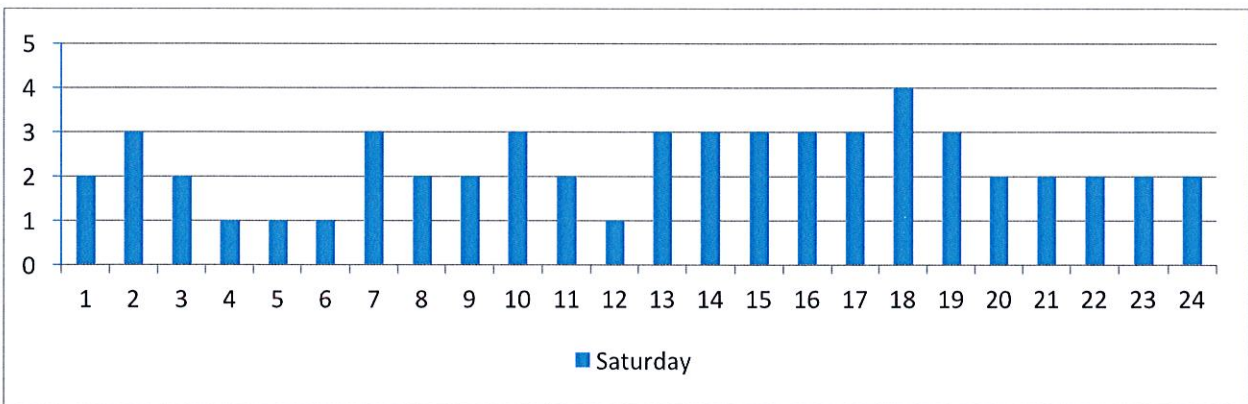
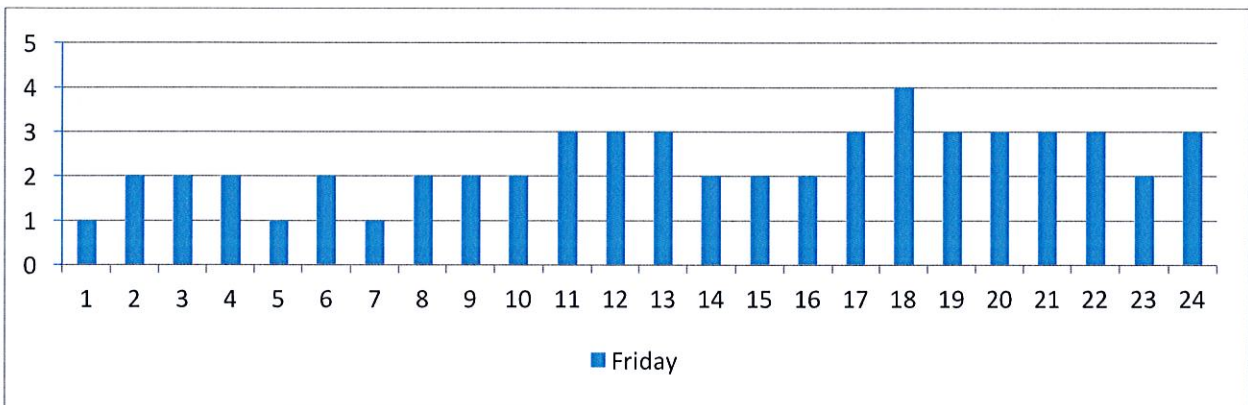
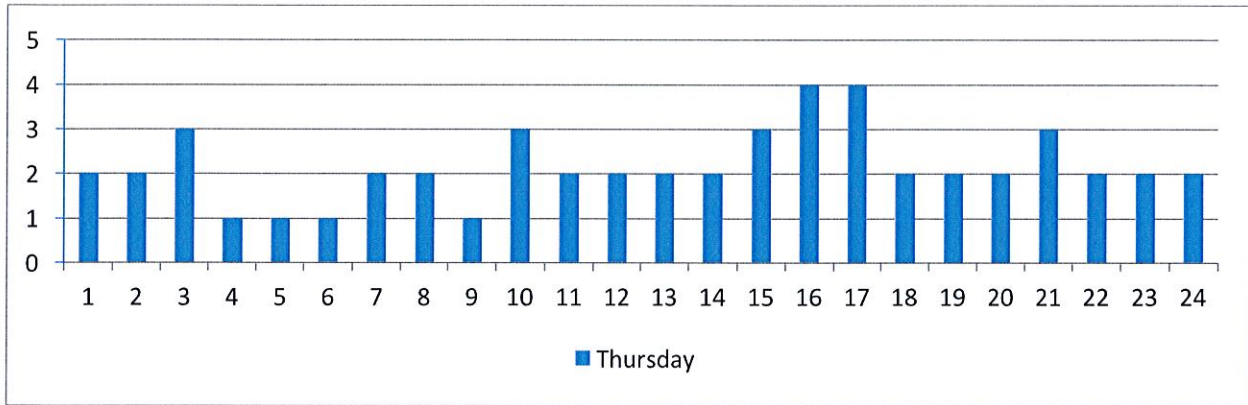
- b. Number of missed calls and a root cause analysis as to why the call was turned over to mutual aid
- 2. Establish response time expectations for the delivery of EMS services to the residents and visitors of the Town.
- 3. Coordinate with the 12 EMS agencies to capture the FRES event number as a part of the information captured and maintained for each run. This will aid the Town in future study of the EMS system and related initiatives.

Appendices

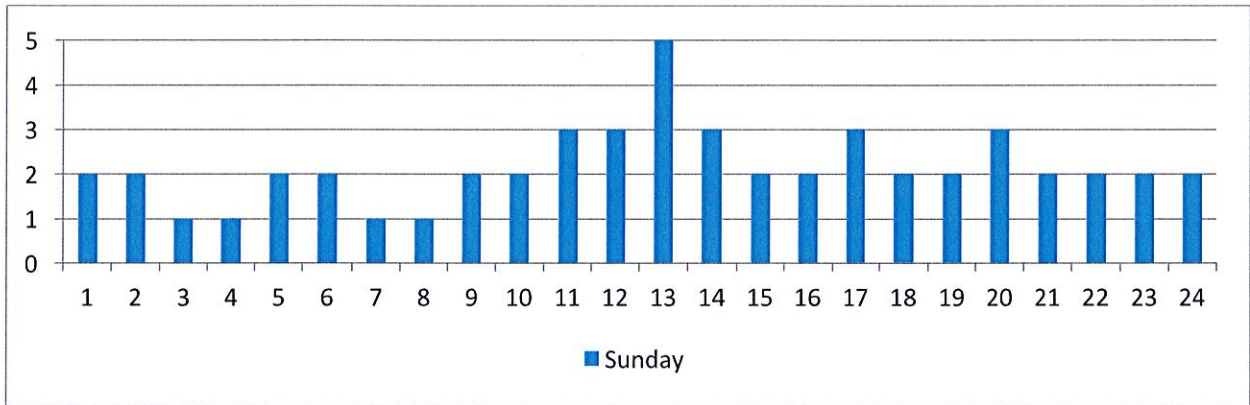
Demand Pattern Analysis - Average Peak (90th percentile) Charts



Demand Pattern Analysis - Average Peak (90th percentile) Charts - Continued



Demand Pattern Analysis - Average Peak (90th percentile) Charts - Continued



Huntington Community First Aid Squad Scheduling Template

Redacted due to confidentiality

Mutual Aid Calls to Huntington Community First Aid Squad – Jan – July 2014

Mutual Aid Calls to HCFAS as Reported by Fire Departments						
Through July 2014						
Date	Time	Address			Hour of Day	Day of Wk.
1/8/14	12:49 PM	265 NEW YORK AVE, HUNTINGTON 11743			23	3
1/13/14	11:52 AM	346 NEW YORK AVE, HUNTINGTON 11743			12	1
4/18/14	11:47 AM	43 NATHAN HALE DR, HUNTINGTON 11743			12	5
6/30/14	4:49 PM	1 HANSON PL, HUNTINGTON 11743			17	1
7/12/14	8:25 PM	166 W PULASKI RD, HUNTINGTON STATION 11746			21	6
2/16/14	2:46 AM	77 E 3RD ST, HUNTINGTON STATION 11746			3	7
2/21/14	12:01 AM	77 E 3RD ST, HUNTINGTON STATION 11746			1	5
4/12/14	2:53 PM	17 E 5TH ST, HUNTINGTON STATION 11746			15	6
4/12/14	4:56 PM	74 E 12TH ST, HUNTINGTON STATION 11746			17	6
5/6/14	6:31 AM	2 RAILROAD ST, HUNTINGTON STATION 11746			7	2
5/14/14	7:07 AM	21 TULSA ST, HUNTINGTON STATION 11746			8	3
5/17/14	7:47 PM	DEPOT RD, HUNTINGTON STATION 11746			20	6
6/11/14	10:08 AM	20 LINWOOD AVE, HUNTINGTON STATION 11746			11	3
1/4/14	10:44 AM	PULASKI RD, HUNTINGTON 11743			11	6
1/31/14	4:42 PM	19 MEADOWOOD CT, HUNTINGTON 11743			17	5
5/14/14	9:02 AM	780 PARK AVE, HUNTINGTON 11743			10	3
4/1/14	12:33 PM	180 WALT WHITMAN RD, HUNTINGTON STATION 11746			13	2
5/7/14	2:43 PM	383 W HILLS RD, HUNTINGTON 11743			15	3
6/8/14	2:33 PM	NEW YORK AVE, HUNTINGTON STATION 11746			15	7
6/14/14	11:44 PM	92 ICELAND DR, HUNTINGTON 11743			24	6
6/22/14	6:17 AM	46 TIPPIN DR, HUNTINGTON 11743			7	7
7/2/14	8:19 PM	20 W 15TH ST, HUNTINGTON STATION 11746			21	3
7/26/14	7:29 PM	16 WESTWOOD DR, HUNTINGTON 11743			20	6
1/28/14	3:41 AM	282 E JERICHO TPKE, SOUTH HUNTINGTON 11746			4	2
2/22/14	7:02 PM	160 WALT WHITMAN RD, 11746			20	6
3/18/14	6:23 AM	7 ADELAIDE ST, 11746			7	2
3/25/14	3:11 AM	1071 PARK AVE, ELWOOD 11746			4	2
6/18/14	1:39 PM	711 E JERICHO TPKE HUNTINGTON STATION 11746			14	3
1/22/14	11:56 AM	NEW YORK AVE & DEWEY ST, HUNTINGTON 11743			12	3
2/15/14	10:06 PM	26 SEA RIDGE CT, HUNTINGTON 11743			23	6
2/21/14	10:16 AM	1450 NEW YORK AVE, HUNTINGTON STATION 11746			11	5
3/6/14	5:42 PM	11 VILLAGE DR, HUNTINGTON 11743			18	4
3/8/14	2:05 AM	83 RAILROAD ST, HUNTINGTON STATION 11746			3	6
3/16/14	10:10 AM	18 VIDONI, HUNTINGTON 11743			11	7
3/19/14	7:43 AM	839 NEW YORK AVE, HUNTINGTON STATION 11746			8	3
3/21/14	2:16 AM	75 IRWIN PL, HUNTINGTON 11743			3	5
5/11/14	12:53 AM	1598 NEW YORK AVE, HUNTINGTON STATION 11746			1	7
6/7/14	2:02 PM	18 FENWOOD RD, HUNTINGTON STATION 11746			14	6
6/12/14	1:08 PM	190 SOUNDVIEW RD, HUNTINGTON 11743			14	4
6/16/14	4:16 PM	200 W CARVER ST, HUNTINGTON 11743			17	1
6/17/14	2:28 AM	21 BROOKSIDE DR, HUNTINGTON 11743			3	2
7/3/14	12:38 PM	839 NEW YORK AVE, HUNTINGTON STATION 11746			13	4
7/5/14	4:41 AM	4 WALLICE CT, HUNTINGTON STATION 11746			5	6
7/29/14	8:30 AM	12 BOXWOOD CT, HUNTINGTON STATION 11746			9	2

Commission on Accreditation of Ambulance Services (CAAS) – Applicable Standards

201.03.02 Distributing Medical Records

A copy of the medical record shall be left at the receiving healthcare facility at the time the patient is delivered.

If the local medical protocol allows the emergent departure of the crew prior to the written or electronic report being completed, then a verbal report or a short written form with essential medical information (see 201.03.01) must be presented at the time patient care is transferred. Essential medical information beyond that required in 201.03.01 shall be determined by local Medical Direction.

Agency personnel must use their best efforts to transfer complete medical documentation at the time the patient is delivered. The complete written record must be delivered to the healthcare facility consistent with local protocol but at a minimum before the agency's transporting, clinical personnel go off shift.

A copy of the medical record shall be maintained on file with the agency (see 103.04.01). If required, a copy of the medical record is to be filed with state/local authorities. (Rev.10/2009)

201.04 Staffing

Appropriate levels of trained staff will be assigned to requests for service.

Characteristics:

201.04.01 Staffing

With input and approval from the Medical Director, the agency shall have established staffing certification and qualification standards for each level of service provided as indicated in Introduction Section XII, E., (BLS, ALS, SCT & Specialty Teams).

The minimum acceptable staffing standard for patient care is two Emergency Medical Technicians. All staffing standards shall be reviewed, at minimum, once per year.

If the agency operates specialty teams and/or services (water rescue, swiftwater rescue, high angle rescue, confined space rescue, bike team(s), technical rescue, etc.), the agency will have policies and procedures in place to guide personnel in the discharge of those duties with evidence of Medical Director input.

The minimum acceptable staffing standard for patient care is two Emergency Medical Technicians. (Rev.10/2009)

201.05 Response Plan

A comprehensive Response Plan is essential in providing timely, appropriate resources to requests for service.

Characteristics:

201.05.01 Triaging Service Requests

With input and approval from the Medical Director, the agency shall have established protocols for triaging requests for service. At a minimum, these protocols shall include determining the level of urgency, determining and sending the closest appropriate resources (including when to request mutual aid), an ability to prioritize multiple requests for service made at one time, a listing of service levels that outlines which types of requests are appropriate for the agency to accept/decline (including SCT requests), and a procedure to help callers locate an appropriate alternative when the agency must decline a request for service (when declined for any reason—service level, resources not available, weather, etc.)

201.05.02 Response Time Standards

The agency shall have established standards for the following time intervals: total time to process a request prior to it being assigned to an ambulance; total time for an ambulance to start responding once notified of a request; total response time (defined as the difference in time from the point where the location of the patient, the call-back number, and the problem type are known--if possible--until the time when an appropriate responding crew advises that they have arrived at the scene.) These time intervals will be defined for life-threatening, emergency, and non-emergency requests. Differences in response time standards by geographic area will be described. In life-threatening requests, the default, total response time standard will be eight minutes and fifty-nine seconds, 90% of the time unless the Medical Director and the oversight agency have established a different system standard is appropriate due to system design.

Note: If the agency provides IFT and/or SCT, response time standards for these levels of service shall be included. (Rev.10/2009)

Commission on Accreditation of Ambulance Services (CAAS) – Applicable Standards Cont.

201.05.03 Response Time Reporting

Analysis Reports for all Response Time Standards, in all geographic areas, will be compiled on a weekly, monthly, and annual basis. Analysis of response times shall at a minimum use a fractile (reliability percentages) method and compare results to community and clinical standards set by the Medical Director. Response Time Analysis Reports shall be shared with employees and management. (Rev.10/2009)

201.05.04 Response Time Monitoring

Trends in response time exceptions will be identified from the Response Time Analysis Reports. Operational changes shall be implemented, and ongoing reassessment of the need for further operational changes will continue until the trend in response time exceptions is no longer present.

201.06 Clinical Standards Performance Improvement

The agency shall have a comprehensive Performance Improvement Program addressing clinical quality.

Characteristics:

201.06.01 Performance Improvement Program

The agency's Clinical Performance Improvement Program shall include prospective, concurrent, and retrospective initiatives designed to improve the care delivered by the agency's providers (whether ALS or BLS levels of care).

All aspects of the Clinical Performance Improvement Program shall be developed in conjunction with the Medical Director. (Rev.10/2009)

201.06.02 Clinical Indicators

The agency's Clinical Performance Improvement Program shall have measurable clinical indicators that are regularly assessed for compliance with established thresholds. These indicators shall include, at a minimum, the following: accurate patient assessment; medical interventions delivered in accordance with established protocols; success of skills; clinical documentation quality, and outcome data. *Note: If the agency provides SCT, the agency shall also conduct appropriate Utilization Review of these services which includes medical benefits to the patient and appropriateness of the transfer.* (Rev.10/2009)

201.06.03 Indicator Exceptions

The agency's Clinical Performance Improvement Program shall have a process for identifying and addressing instances where measurable indicators are not in compliance with established thresholds. This process shall include individual exceptions, as well as trends. (Rev.10/2009)

201.06.04 Other Clinical Issues

The agency's Clinical Performance Improvement Program shall have a process for investigating & addressing clinical issues raised by any means other than measured indicators. (Rev.10/2009)

201.06.05 Reporting Performance Improvement Data

The agency shall have a defined reporting process for Performance Improvement activities and issues. This shall include, at a minimum: documenting & reporting individual issues and individual clinical indicator results to the respective individuals, and documenting & reporting aggregate data of clinical indicators and other activities to employees, management, and the Medical Director. (Rev.10/2009)

201.06.06 Assessing Performance Improvement Effectiveness

The agency shall measure and report the effectiveness of its Clinical Performance Improvement initiatives to management, at least annually. Areas of the program determined to be in need of improvement will be identified, changed, reassessed, and reported on. (Rev.10/2009)

202

SAFE OPERATIONS & MANAGING RISK

Purpose

Comprehensive safety standards are required to assure that patients, employees, and the agency are protected from unnecessary risk.

202.01 Vehicle Safety

Programs shall be in place to address the safe operation of agency vehicles.

Information / Data Request – Huntington Community First Aid Squad

Service Specific Volume Information

- On scene response volume, by level / type of service, in monthly increments for calendar year 2013 and calendar year to date 2014 by service type (Emergency ALS, Emergency BLS, Non-emergency ALS, Non-emergency BLS, SCT, etc)

Encounter / Incident Information

- Data for calendar year 2013 and calendar year to date 2014 for each organization
 - Agency’s unique identifier – encounter / incident number
 - Unique identifier or incident number provided by FRES or the County Police 911
 - Call received from – (911 center, agency, private caller)
 - Date of the encounter / incident
 - Longitude and Latitude or X and Y coordinates of encounter / incident
 - Street address of encounter / incident
 - City of encounter / incident
 - State of encounter / incident
 - Zip code of encounter / incident
 - Dispatch Zone (or contract area or first due station)
 - Unit ID
 - Type of call (Emergency Non-Emergency)
 - Resource Needed or desired by protocol (ALS or BLS or SCT)
 - MPDS triage / dispatch code / chief complaint
 - Call priority
 - Encounter / Incident disposition (e.g. Cancel reason, transported, transferred to Mutual Aid)
 - Date/Time call received by PSAP
 - Date/Time call received by dispatch center
 - Ideally for each vehicle responding to the incident (transporting and non-transporting) at a minimum, the transporting vehicle.
 - Type of resource
 - Date/Time of dispatch
 - Date/Time en route
 - Date/Time arrived on scene
 - Date/Time departed scene
 - Date/Time arrived at destination
 - Date/Time cleared destination
 - Date/Time cancelled
 - Transport destination (facility name or address)
 - If transferred to Mutual Aid – name of service

Data Format

- Microsoft Access or Excel file preferred
- Tab or Comma delimited text file

Information / Data Request – Fire Rescue & Emergency Services Operator (FRES)

Encounter / Incident Information

- Data for calendar year 2013 and calendar year to date 2014 for all calls handed referred to Huntington Community First Aid Squad (HCFAS) and calls identified as being in HCFAS response areas that are handed off to another service. The specific data includes the following:
 - Unique identifier – encounter / incident number
 - Date of the encounter / incident
 - Longitude and Latitude or X and Y coordinates of encounter / incident
 - Street address of encounter / incident
 - City of encounter / incident
 - State of encounter / incident
 - Zip code of encounter / incident
 - Dispatch Zone (or contract area or first due station)
 - Type of call (Emergency Non-Emergency)
 - MPDS triage / dispatch code / chief complaint
 - Call priority
 - Date/Time call received by FRES
 - Date/Time call transferred to HCFAS's or other agency's dispatch center

Data Format

- Microsoft Access or Excel file preferred
- Tab or Comma delimited text file