Trinity EMS Opioid reporting, tracker, and reporting restatement

This document is meant as a guide to provide a baseline understanding of Trinity EMS's data.

Topics include:

- Limitations of data
- Geography of data
- Created
- Gathered
- Classified
- Reports
- FirstWatch

Limitation of data:

Opioid related deaths are difficult for EMS to capture.

- Many times law enforcement is first on scene. An EMS crew is often kept out of the scene to maintain potential evidence.
- We don't document what happens to a patient once that patient is in a hospital bed; if it we note CPR being done at the hospital, we don't document it as a death.
- EMS crews are very cautious to note a suspected cause of death. We don't want to document something that ends up being untrue.

Geography of data:

Trinity EMS provides 911 service for the following communities

- MA: Lowell, Chelmsford, Dracut, Haverhill, West Boxford, and Groveland
- NH: Atkinson, Plaistow, Hampstead, Newton, Danville, and Sandown

Only calls in those cities and towns are included in our data set. Trinity covers well over 99.5% of all EMS 911 calls in these cities.

Created:

Each interaction an EMS crew has with a patient leads to an ePCR (electronic Patient Care Report) being created. This ePCR contains hundreds of points of data, for example breathing quality and rate, chief complaint, etc. There are many check boxes, pulldown lists, and fill in the blank data points. There is also a narrative. This is where the EMT writes the story of the call.

It's these points of data we analyze to help with the opioid crisis. This ePCR gets created regardless if the patient gets transported to the hospital.

Gathered

Automated gathering is done via FirstWatch.   See below for FirstWatch section

We utilize a crystal report to get our ePCR's into Microsoft Excel. In Excel we use keyword searching within conditional formatting to separate the opioid related calls we want to examine closer. The keywords in the narrative are: heroin, narcan, Naloxone, needle, syringe. We also search for a chief complaint of overdose- heroin, and overdose-opioid.

Classification

Each and every suspected opioid related call Trinity EMS has responded to since January 1, 2014 has been read by Joe B. Joe is one of our EMT/Dispatchers. Once Joe gathers the data he will read the ePCR. He reads the narrative and looks for data regarding the patients encounter. To help speed our data release, Joe reads and classifies the data each day he works.

At the end of the month we run an additional report that pull information from our dispatch and billing programs. The report gets the location, timestamps, hometown of patient, and 24 other points. Using conditional formatting we again limit the calls down to the suspected opioid calls

- Priority of patent- how sick the patient was.
    - o Priority 1 patients are dead or within approximately 5 minutes of being dead because of an opioid. They are in repertory arrest (not breathing) or having agonal respirations ("dying breaths"). Without someone providing narcan and breathing support they will die
    - o Priority 2 are patients that used an opioid that are now having some sort of serious medical issue or traumatic injury. Shortness of breath, seizures, altered mental status to name a few.
    - o Priority 3 are patients that took an opioid and are now interacting with EMS. A motor vehicle accident, wanting rehab, or under arrest are some examples. Usually the usage is within a few hours.
    - o Priority 4's are the false positives. These calls will have one of the key words in the narrative but not impacting the patient now. An example: "32 year old male, chief complaint is leg pain. Pt has a history of heroin usage". The search would highlight heroin. The reason we are with the patient is not related, so we count those as priority 4.
    - o Priority 5 are calls where needle or syringe is in the narrative. The only indication for many overdose deaths are the words "needle" or "syringe". These calls don't show on any of our reports. If there is a clear indication a death is opioid related that call gets classified as a Priority 1.
- All of the other data categories are self-explanatory

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Reports

Depending on the city or town we produce 2 or 3 overdose reports monthly.

- ▪ **Overdose report**
    - All overdoses or suspected overdoses. Opioid, cocaine, or any non-alcohol overdose.
    - This is straight from condition formatting so it contains false positive.
- ▪ **Opioid report**
    - Includes priority 1,2,3, and 4
    - We keep this report going in some cities for historic purposes.
- ▪ **Categorized Opioid Report**
    - This report contains only priority 1, 2, and 3 opioid calls.

- Partners in this opioid crisis have asked for most of the points of data contained in this report. Do opioid overdoses spike on weekends? Does the volume of opioid overdoses tie in with release of social benefits? What is the home town of the patients' overdoses in this community? These are just a few of the questions that were asked of us. This categorized opioid report is the most in-depth and accurate report on the opioid crisis we create.

We also produce special one off reports for cities, and other agencies as requested and approved by our oversight agencies.

HIPPA:

We follow all health insurance Portability and Accountability (HIPAA) requirements. Basically, we can't share information that would allow someone figure out who a specific patient is.

FirstWatch:

FirstWatch is a computer monitoring program Trinity purchased to help with the opioid crisis. FirstWatch helps turn our raw data into meaningful and actionable intelligence in real time.

FirstWatch mines our ePCR database. FirstWatch automatically scan for: heroin, opioid, opium, narcan, and Naloxone. When these terms are found in a report the trigger is activated. This automatically sends an app alert and/or an email to authorized users. This notification contains only HIIPA complaint information regarding this call. The city manager or mayor for the communities we serve control how is given access to this data. Many police, fire, and public health leaders have FirstWatch access. FirstWatch also has a digital gauge as part of the app. This gauge shows the number of opioid overdoses in the service area for the past 72 hours.

FirstWatch is the tool we utilize for the Lowell Surge Protocol. When the FirstWatch opioid trigger for Greater Lowell shows a specific number of opioid overdoses within a period of time the surge protocol is activated.

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