How EMS Can Fight the Opioid Epidemic

Panelists: Jon Kelley, Rob Lawrence, Dave Lewis, Jamie Pianka
Moderated by Todd Stout

Handout available at: firstwatch.net/hi/opioids/pinnacle
Thank you FirstWatch!

Today’s webinar host and moderator, Todd Stout

FirstWatch is proud to be a new Pinnacle 2018 Strategic Sponsor!
Today’s Agenda

• Introductions
• Quick Orientation to our Plan
• Panelists
  • Overview of System
  • Quick Overview of Each System’s Opioid Approach
  • Matrix Section Overview
• Lessons Learned, Q&A (as time allows)
  • Panelists
  • Audience
Introduction to Panelists

Jon Kelley  
Trinity EMS

Rob Lawrence  
RAA

Jamie Pianka  
ProEMS

Dave Lewis  
SCCAD

Moderator
Todd Stout  
FirstWatch
Resources

- Slides, the matrix and other resources are online at: www.firstwatch.net/hi/opioids/pinnacle

- Submit your own resources, info & examples to: JSmith@firstwatch.net for inclusion online, and best practices sharing
Pinnacle 2017 Regular Conference Session: How EMS Can Fight the Opioid Overdose Crisis

Wednesday Aug 9th 2:45 – 3:45 pm

Presenters: Todd Stout, FirstWatch, Rob Lawrence, Richmond Ambulance Authority, Jon Kelly, Trinity EMS, Jamie Planka, ProEMS and Dave Lewis, St. Charles County Ambulance District

Session Description:
Opioid overdoses are now clearly one of the biggest public health threats facing this country, leading to more than 33,000 deaths in 2015 according to the Centers for Disease Control and Prevention. EMS has a role to play beyond responding and administering naloxone. Whether it's providing links to addiction treatments or sharing valuable EMS data with public health partners, agencies across the country are finding innovative ways to help address the problem and stop overdoses before they occur.

In this roundtable discussion, leaders of EMS systems taking proactive approaches to addressing the opioid crisis, including the Richmond (Va.) Ambulance Authority, ProEMS in Cambridge, Mass., Trinity EMS in New Hampshire, and SCCAD, MO will share their successes and challenges. Members of the audience will be invited to tell their communities' stories as well in an open and honest conversation of the role of EMS in halting the rise in overdose deaths.

Click Here for Matrix from Pinnacle Presentation

*This matrix will be updated with information from audience members post Pinnacle and continue to be updated as new information becomes available.*
Rob Lawrence
Richmond Ambulance Authority
Richmond, VA
Richmond Ambulance Authority
Richmond, VA

- High Performance / Value EMS System
- 216,000 residential population, 750,000 in the Business Day
- 54,396 - 911 ambulance responses in 2016 with an additional 15,120 Non Emergency Journeys
- 501 C(3) Not for Profit
- CAAS & ACE Accredited
<table>
<thead>
<tr>
<th>Chief Complaint</th>
<th>Pri Impression</th>
<th>Morphine</th>
<th>Versed</th>
<th>Narcan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion/Poisoning</td>
<td>Abuse of Narcotic (i.e. Heroin) - PCR</td>
<td>2.50</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>Poisoning/Overdose - Substance Abuse</td>
<td>Abuse of Narcotic (i.e. Heroin) - PCR</td>
<td>5.00</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>Poisoning/Overdose - Intentional Med OD</td>
<td>Abuse of Narcotic (i.e. Heroin) - PCR</td>
<td></td>
<td></td>
<td>2.00</td>
</tr>
<tr>
<td>Cardiac - Cardiac Arrest</td>
<td>CV - Cardiac Arrest - PCR</td>
<td></td>
<td></td>
<td>2.00</td>
</tr>
</tbody>
</table>

**OD/Naloxone**

![Graph showing OD/Naloxone](image-url)
Matrix Section: Narcan

- Dosage count used over lots of calls indicates ‘bad stuff on the street’ well before State labs.

- Citizen issued Narcan now starting to be more prolific

- State grant to Responders to issue Narcan for free
Contact Information

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C: 804 205 2557
Jon Kelley
Trinity EMS
Lowell, MA
Trinity EMS
Lowell, MA

- 13 911 communities in Mass and NH
  - Merrimack Valley area
  - 270,000 residential population
- 38,000 911 ambulance runs in 2016
  - 39,000 NET and chair van calls in 2016
- Privately owned

Our area
Opioids in Our Area

Trinity EMS has responded to and provided care for 2,100 opioid induced respiratory arrest that were reversed.

<table>
<thead>
<tr>
<th>Opioid Deaths</th>
<th>2013</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massachusetts</td>
<td>961</td>
<td>2,107</td>
</tr>
<tr>
<td>Middlesex County</td>
<td>155</td>
<td>400</td>
</tr>
<tr>
<td>Lowell Ma</td>
<td>25</td>
<td>66</td>
</tr>
</tbody>
</table>
Opioids in Our Area

Data Brief: Opioid\(^1\)-Related Overdose Deaths Among Massachusetts Residents

Massachusetts Department of Public Health

POSTED: AUGUST 2017

This report contains both confirmed and estimated data through June 2017.

Figure 1. Opioid\(^1\)-Related Deaths, All Intents
Massachusetts Residents: January 2000 - December 2016

The chart above shows the number of confirmed cases of all intents opioid-related overdose deaths for 2016 (n=1990). This figure represents a 19% increase over confirmed cases in 2015 (n=1670) and a 46% increase over 2014. In order to obtain timelier estimates of the total number of opioid-related overdose deaths in Massachusetts - confirmed and probable - DPH used predictive modeling techniques for all cases not yet finalized by the Office of the Chief Medical Examiner (OCME). Based on the data available as of 07/11/2017, DPH estimates that there will be an additional 120 to 140 deaths in 2015 and an additional 167 to 195 deaths in 2016, bringing the total deaths to 2,107.
Highlights

• We read every suspected opioid ePCR
  - Over 5,000 ePCR read
• Monthly, quarterly, and annual reporting
• Lots of community outreach
• Core part of our communities response to the opioid crisis
• Opioids for Business outreach
• Medication disposal mailing with each bill
• Media
• Political
<table>
<thead>
<tr>
<th>Field</th>
<th>Source</th>
<th>Possible entries</th>
<th>Why</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of call</td>
<td>CAD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Run/log number</td>
<td>CAD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Priority</td>
<td>Interpretation</td>
<td>Priority 1 is a death or respiratory arrest, priority 2 is AMS, priority 3 is opioid usage, priority 4 is a false positive</td>
<td>Not every opioid related call will involve Narcan. If you only record respiratory arrests, you are going to miss a huge percent of your opioid calls</td>
</tr>
<tr>
<td>Setting</td>
<td>Interpretation</td>
<td>Private residence, public location inside or outside, residential institution</td>
<td>Overtages outdoors could indicate drug dealing close to overdose. Nobody is going to drive across town and stop in a park to use. They likely will use close to the purchase point</td>
</tr>
<tr>
<td>Specific outdoor</td>
<td>Interpretation</td>
<td>public bathroom, car</td>
<td>Important for public health.</td>
</tr>
<tr>
<td>Heroin/Opioid related notes</td>
<td>Interpretation</td>
<td>unresponsive OD, Past heroin mentioned, AMS from heroin usage.</td>
<td>5-6 work summary of the call;</td>
</tr>
<tr>
<td>Narcan uses</td>
<td>Interpretation</td>
<td>Yes, No</td>
<td>Makes using pivot tables later in the process much easier</td>
</tr>
<tr>
<td>Narcan dose</td>
<td>Interpretation</td>
<td>in Mg</td>
<td>Critical to track trends</td>
</tr>
<tr>
<td>Narcan used by</td>
<td>Interpretation</td>
<td>TEMS ALS, BLS, Fire, police, other medical, non medical</td>
<td>You should also note if more than 1 agency used Narcan. Great tool to report bystander Narcan usage. 18% of our priority 1 calls the first Narcan dosage was by a non medical person</td>
</tr>
<tr>
<td>Recent rehab</td>
<td>Interpretation</td>
<td>Yes, No</td>
<td>Helpful for public health, most don’t note this so it has limited value</td>
</tr>
<tr>
<td>Mentation post Narcan</td>
<td>Interpretation</td>
<td></td>
<td>Perception is most patients post Narcan are violent. This can help prove/disprove</td>
</tr>
<tr>
<td>Vehicle</td>
<td>CAD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pick up city</td>
<td>CAD</td>
<td>city/town name</td>
<td></td>
</tr>
<tr>
<td>Pick up Zip</td>
<td>CAD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Call type</td>
<td>CAD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial priority</td>
<td>CAD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport priority</td>
<td>CAD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dispatch Zone</td>
<td>CAD</td>
<td>neighborhood zones</td>
<td>Allows reporting to the public about opioid usage in their section of the city without giving out actual addresses</td>
</tr>
<tr>
<td>Call source</td>
<td>CAD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Fields</td>
<td>PCR</td>
<td>CAD</td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------</td>
<td>---------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Chief complaint</td>
<td>PCR</td>
<td>Selected by the crew. Helps to show you can just go off the dispatch complaint</td>
<td></td>
</tr>
<tr>
<td>Nature</td>
<td>PCR</td>
<td>How the call came in. We know 1 in 7 of our opioid related calls didn’t get dispatched as something you would normally consider an indicator of an overdose</td>
<td></td>
</tr>
<tr>
<td>Primary Impression</td>
<td>PCR</td>
<td>Selected by the crew.</td>
<td></td>
</tr>
<tr>
<td>Narrative</td>
<td>PCR</td>
<td>Yes, the whole narrative. Using excel conditional formatting will be critical to using this data</td>
<td></td>
</tr>
<tr>
<td>Cancel reason</td>
<td>PCR</td>
<td>How many patients didn’t go to the hospital, this will answer those questions</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>PCR</td>
<td>Age of patient, helps develop profile</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>PCR</td>
<td>Sex of patient, helps develop profile</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>PCR</td>
<td>Critical to track patents that overdose more than once</td>
<td></td>
</tr>
<tr>
<td>DOB</td>
<td>PCR</td>
<td>Critical to track patents that overdose more than once</td>
<td></td>
</tr>
<tr>
<td>Dispatch Time</td>
<td>CAD</td>
<td>Will be used with =hour(cell) in excel</td>
<td></td>
</tr>
<tr>
<td>Pickup address</td>
<td>CAD</td>
<td>Location of call. Needed to map and track addresses with many OD’s</td>
<td></td>
</tr>
<tr>
<td>Drop of Hospital</td>
<td>CAD</td>
<td>Where did the patient go</td>
<td></td>
</tr>
<tr>
<td>Patients home address</td>
<td>CAD</td>
<td>After the billing process. Did the patient overdose at home or somewhere else</td>
<td></td>
</tr>
<tr>
<td>Patient home city from billing</td>
<td>CAD</td>
<td>Helps show the transitive property of the opioid problem. Trinity servers 13 towns, we have taken care of patients having an opioid issues from 200 different home towns</td>
<td></td>
</tr>
<tr>
<td>Field</td>
<td>Data Source</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------</td>
<td>------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>PT ID</td>
<td>CAD</td>
<td>In excel =concatenate(cell with DOB, cell with patient name). Helpful tracking multi OD patients</td>
<td></td>
</tr>
<tr>
<td>OD same address as home address</td>
<td>Yes, No</td>
<td>compare pick up location with home address</td>
<td></td>
</tr>
<tr>
<td>OD same city as home city</td>
<td>CAD Yes, No</td>
<td>compares home city with city of OD</td>
<td></td>
</tr>
<tr>
<td>Qrt</td>
<td>excel 90</td>
<td>A cheat for pivot tables in excel in a reporting process</td>
<td></td>
</tr>
<tr>
<td>Qrt</td>
<td>excel 1,2,3, or 4</td>
<td>Helps show a longer range issue without overwhelming people with numbers</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>excel</td>
<td>=year(cell with date)</td>
<td></td>
</tr>
<tr>
<td>Day</td>
<td>excel m-S</td>
<td>=text(cell with date, &quot;ddd&quot;). Helpful to show the follow and picks</td>
<td></td>
</tr>
<tr>
<td>Day #</td>
<td>excel</td>
<td>=day(cell with date). Public health asked about correlation of social benifits and opioid usageage, this shows that</td>
<td></td>
</tr>
<tr>
<td>Hour</td>
<td>excel</td>
<td>=hour(cell with time)</td>
<td></td>
</tr>
<tr>
<td>City housing</td>
<td>excel</td>
<td>reference a specify list from a city</td>
<td></td>
</tr>
<tr>
<td>County</td>
<td>excel</td>
<td>Uses VLOOKUP to reference which county a city is. Useful for county level services</td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>excel</td>
<td>We use VLOOKUP, you could get in from CAD or ePCR</td>
<td></td>
</tr>
</tbody>
</table>
COOP

• Lowell Police and Lowell Fire
• Community Opiate Outreach Program
• Follow-up with opiate overdoses within 48 hours
• Trinity has 2 20 hour a week EMT’s on this time
• Phone calls, visits, coordinate rehab beds and transport
• Train family on narcan
Matrix Section: Children's Program

- Project C.A.R.E. (Child Assessment and Response Evaluation)
- Created by Middlesex County District Attorney Marian Ryan
  - Public-Private partnership
  - Immediate services to children who experience opioid related trauma
- Project Care provides 1 on 1 follow up with all under 18 if their parent or sibling has an opioid overdose. (Even if the child did not witness it.)
- 2 similar stories, 2 different responses
- Great for the kids and public safety
Quality improvement in action: Cutting opioid overdose deaths in half

A cross-agency collaboration in Lowell, Mass., uses an overdose data-driven approach to performance improvement, saving lives

Yesterday at 5:06 PM

by Mike Taigman and Jon Kelley
Contact Information

Jon Kelley, Director of Communications
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C: 978-877-9295
Pro EMS as part of the Cambridge EMS system

- City of Cambridge 9-1-1 EMS provider
- City of Cambridge
  - Population: ~100,000 residents & ~300,000 daytime
  - 5 Colleges including Harvard University, MIT
  - Broad ethnic and linguistic diversity
  - 6.25 square miles
  - Manufacturing, Biotech and Pharmaceutical center
- Predominantly emergency
- ~20,000 transports annually
Pro EMS has been sharing overdose information with Cambridge Public Health since 2009; now providing real-time alerts and data through FirstWatch

Public access Narcan program under development as part of the Public Access opioid Reversal Kit (PARK) study (see NY Times K.Q. Seele 5/9/17)

Initial and annual training for EMS, CFD and CPD

Weekly multi-discipline community outreach with public and private organizations including Healthcare for the Homeless and CPD

Monthly meeting with community hospital physician(s), Cambridge Public Health Department and Healthcare for the Homeless group to review and plan care for HUES

Created the Cambridge Recovery Coach Access Program whereas paramedics were trained as recovery coaches; originally targeting HUES

Provide data to system for centralized EMS data collection for the entire region.
Matrix Section: Public Health

- Public health epidemiologist getting FirstWatch data
- Public health outreach using geocoded data
- Public health and hospital receiving info on high utilizes and public health involved by way of recovery coach project.
A meeting of community leaders and stakeholders developed and reviewed a proposal to implement a small pilot program developing recovery coaches to target High Utilizers of Emergency Services (HUES) within the city. This effort has proven to be a multi-disciplinary effort leveraging the skills, infrastructure and expertise of public safety, public health, social services and healthcare to provide unique and critical support to a select cohort of Cambridge’s highest utilizers of healthcare and social services, including those struggling with homelessness.
Recovery Coach training

- Connecticut Community for Addiction Recovery (CCAR) is gold standard nationally
- DPH CCAR training was full and not accepting new registrations
- CCAR recovery coach academy trainer came to Pro EMS
- attendees from Pro EMS, The Cambridge Hospital and Cambridge Public Health
- Ethical Considerations in Recovery Coaching held at Pro EMS
Cambridge Recovery Coach Access Program

What we were expecting…

• Assist in navigation of system for recovery resources
• Assist in transportation to recovery meetings
• Assist in advocating for recovery resources
• Connect those seeking recovery with primary healthcare
What we found was…

- Hours of calling to get clients into detox or rehab
- Poor resource lists with out of date information
- Hang ups and “we cant help” calls
- Language challenges
- Housing challenges
- 11 PM pharmacy trips
- Hotel rooms for individuals
- Helping individuals obtain updated identification cards
- Helping clients with health insurance and understanding their eligibility
- Helping clients attend meetings
- Helping clients find and pay for temporary “sober” housing
- Help clients to obtain legal green card and passport at foreign embassy
- Help clients obtain clothing and other necessities
- Rent furniture
Outcomes for pilot and lessons learned…

• High recidivism rate after 90 days
• States infrastructure for sustained recovery not yet developed
• Even with expenses for housing, transportation, food, regular household expenses there was a profound cost savings to social services, and healthcare systems
• Be prepared for some success and some failure
Things that work for us:

- Having access to data for identifying “new” HUES
- Having access to real-time data for reviewing overdoses within city
- Having the relationships with staff at PD, hospitals and shelters
- Having ability to share real time data with other agencies quickly and effortlessly
- Having high level of confidence in data systems but understanding much requires a human eye....
- Face it Together Cambridge- uses Recovery Capital Index to provide measurable benchmarks for success and track patient encounters.
The solution for long term recovery services....(?)

The pilot program is a collaboration of Cambridge based partners and organizations. For us we are building Face it Together Cambridge.

Pro EMS serves as the lead agency receiving support and direction from a steering committee comprised of the Cambridge Public Health Department, Cambridge Police Department, Cambridge Health Alliance and Pro EMS. All agencies work together to identify potential clients.
Contact Information

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C: 617.756.4284
Dave Lewis
St. Charles County Ambulance District
St. Charles, MO
St. Charles County Ambulance District Agency Profile

Size: 592 square miles
Population: 400,000
Paramedics: 219
Ambulances: 33
EMS Stations: 16
Volunteer Teams: 2
Call Volume Snapshot

- Overdoses
- Deaths


Values:
- Overdoses: 200, 250, 300, 350, 400, 450
- Deaths: 50, 100, 150, 200, 250, 300
Opiate Deaths

<table>
<thead>
<tr>
<th>Year</th>
<th>Heroin</th>
<th>Oxycodone</th>
<th>Fentanyl</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>10</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>2008</td>
<td>15</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>2009</td>
<td>20</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>2010</td>
<td>25</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>2011</td>
<td>30</td>
<td>25</td>
<td>5</td>
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<tr>
<td>2012</td>
<td>35</td>
<td>30</td>
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</tr>
<tr>
<td>2013</td>
<td>40</td>
<td>35</td>
<td>5</td>
</tr>
<tr>
<td>2014</td>
<td>45</td>
<td>40</td>
<td>10</td>
</tr>
<tr>
<td>2015</td>
<td>50</td>
<td>45</td>
<td>15</td>
</tr>
<tr>
<td>2016</td>
<td>55</td>
<td>50</td>
<td>20</td>
</tr>
</tbody>
</table>
HHS Priorities

• Improved access to treatment and recovery services
• Promoting the use of overdose-reversing drugs
• Better understanding via public health surveillance
• Research and pain addiction support
• Better practices for pain management

Aligned Efforts

• Community Outreach
• Mobile Integrated Health Providers
• Harm Reduction
• Data Sharing
• Collaborative Partnerships
Matrix Section: Media

• SCCAD developed a STOP Heroin Campaign that includes a presentation and an agency-produced video depicting an overdose event through the eyes of paramedics and first responders.

• https://sccad.com/wordpress/stop-heroin
Launched August 2016
Multi-faceted prevention campaign developed by SCCAD Paramedics
Separate presentations developed for adult and youth audiences
Overdose re-enactment video leads all presentations

**Video Link**
**KSDK Coverage**
St. Charles County Substance Use Recovery Response Team

- Launched March 2017
- Collaborative effort between Paramedics, Police and Treatment Providers in our community
- If PT is conscious/alert following revival, he/she is offered a packet of information and opportunity to talk one on one with a SURRT Paramedic about resources available
- PT may authorize family/friends to be part of recovery discussion through HIPAA release.

KMOV News Coverage
Opiate OD Incidents Mapped

** FirstWatch Naloxone Trigger
Public Narcan Distribution

• Launched July 2017
• Approached by NCADA to become distribution partner for community Narcan
• Families may receive two free doses of Narcan if they have a loved one struggling with addiction
• Cost to SCCAD is nothing; project is funded by the MoHope Grant
Other Media Links

- KTVI News – Re-Enactment Video, Jan 2017
- STL Post Dispatch – Awareness, Treatment, Mar 2017
- EMS1 – Opiate Program Overview, May 2017
- EMS World – Cassidy MEMSA Win, Jul 2017
- Streetscape Magazine – Program Overview, Aug 2017
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Lessons Learned / Q&A

- Panelists
- Audience

www.firstwatch.net/hi/opioids/pinnacle