Narcan (Naloxone HCL) Use in Boston

1978
- Boston EMS Paramedics began administering Narcan

2006
- Boston EMS granted Special Project Waiver: BLS Narcan

2007
- BPHC Issues Narcan to Friends/Family

2012
- BEMS Proves BLS Narcan Concept, STP Protocols Changed

2013
- First Responder Narcan Program
• **DOCUMENTATION:** All patient encounters are documented in the electronic Patient Care Report.

• **DATA QUERY:** An automated query is run searching clinical impression, cause and free text fields.

• **MANUAL REVIEW:** All records with one or more of the identified key words/text strings is manually reviewed by a department paramedic/analyst to determine if they meet the case definition for NRI.

• **NRI CLASSIFICATION:** The analyst categorizes NRI calls as either Heroin Observed (HO), Heroin Mentioned (HM), or Other Abuse (OA), as well as type of opioid/opiate.
  - Of the 2,601 NRI calls in 2015, the vast majority (83%) were coded as HO.
  - EMS personnel who cared for the patient may be contacted for additional information.
• **Narcotic Related Illness**
  
  – A Boston EMS clinical incident identified as suspected to be related to narcotic use (including opiates and opioids) after review. Potential NRI cases are identified based on information entered in patient care reports by on scene EMTs or Paramedics, with confirmation of pinpoint pupils and altered mental status.
  
  – Does NOT include: cocaine, meth, benzos, marijuana

• **Cardiac (CARD)**
  
  – Patient with identified NRI (based on presence of narcotic paraphernalia or verification by a first-person witness) determined to be in cardiac arrest, without vital signs, by Boston EMS.
• **Heroin Observed (HO)**
  – Heroin drug use identified based on presence of altered mental status, myosis, patient’s admission of heroin use, evidence of recent/chronic venipuncture, possession of narcotic injecting/insufflating paraphernalia, and/or eye witness report of heroin use.

• **Other Abuse (OA)**
  – when patient admits to an opioid source other than heroin.

• **Heroin Mentioned (HM)**
  – A case where the patient admits to narcotic use as part of their medical history, but is unrelated to presentation.
• **Narcan Given**
  – Narcotic-related incident in which patient’s condition required administration of Narcan.

• **Referred to Medical Examiner (RME)**
  – Patient with identified NRI (based on presence of narcotic paraphernalia or verification by a first-person witness) determined to be non-viable on scene and referred to the Medical Examiner by Boston EMS.
Boston EMS NRI Incidents – An Historical Perspective

- **NRI Cases**
- **Narcan Administered**
- **Cardiac Arrest**
- **RME**

Year | NRI Cases | Narcan Administered | Cardiac Arrest | RME |
--- | --- | --- | --- | --- |
2010 | 1013 | 232 | 9 | 10 |
2011 | 1085 | 353 | 14 | 13 |
2012 | 1381 | 431 | 16 | 20 |
2013 | 1518 | 508 | 13 | 37 |
2014 | 2037 | 809 | 23 | 47 |
2015 | 2601 | 1196 | 31 | 67 |
<table>
<thead>
<tr>
<th>Result</th>
<th>9/12/2016-9/18/2016</th>
<th>9/12/2015-9/18/2015</th>
<th>01/01/2016-9/20/2016</th>
<th>01/01/2015-9/20/2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cases of NRI</td>
<td>57</td>
<td>47</td>
<td>2193</td>
<td>1914</td>
</tr>
<tr>
<td>RME</td>
<td>3</td>
<td>0</td>
<td>39</td>
<td>47</td>
</tr>
<tr>
<td>Narcan given</td>
<td>34</td>
<td>22</td>
<td>1161</td>
<td>857</td>
</tr>
<tr>
<td>Heroin Cases</td>
<td>51</td>
<td>40</td>
<td>1850</td>
<td>1594</td>
</tr>
<tr>
<td>Heroin Mentioned</td>
<td>3</td>
<td>1</td>
<td>107</td>
<td>52</td>
</tr>
<tr>
<td>Other Abuse</td>
<td>3</td>
<td>6</td>
<td>235</td>
<td>268</td>
</tr>
<tr>
<td>Cardiac Arrest Transported to a Hospital</td>
<td>0</td>
<td>1</td>
<td>43</td>
<td>46</td>
</tr>
</tbody>
</table>
Year to Date Boston EMS Suspected NRI Incidents

- Of the 2,193 Suspected NRI incidents from January 1\textsuperscript{st}, 2016 through September 19\textsuperscript{th}, 2016:
  - 73\% were male and 27\% female
  - 53\% were given Narcan (1,161)
Year to Date NRI Incidents by ZIP Code
Coordination & Information Sharing