

**MA Opioid‐Related EMS Incidents**

**2013‐March 2018**

Massachusetts Department of Public Health

POSTED: AUGUST 2018

# Enhancement of Opioid Overdose Surveillance

MATRIS, the Massachusetts Ambulance Trip Reporting Information System, is a statewide database for collecting emergency medical service (EMS) data from licensed ambulance services. It was not specifically designed to track opioid overdose incidents. DPH is currently working with all EMS providers to improve the quality and completeness of these data especially with respect to opioid overdose incidents. To more accurately identify ambulance trips that are opioid‐related, several pieces of information from MATRIS are combined such as: a notation that a trip was listed as a poisoning, that there was an administration of naloxone, or that the patient admitted to drug use. In combination, this information allows DPH to more accurately count opioid overdose incidents. Data for Boston came from applying this algorithm to events identified by Boston EMS as “Narcotic Related Incidents” (NRI). Not all ambulance services have reported their most recent data at the time this report was generated, and therefore the numbers cited here may be underestimates. Counts will be updated on a quarterly basis. Beginning with the August 2017 report, incidents are only among people ages 11 and above.

# Results

Since 2013, there has been an overall increasing trend in the percentage of EMS incidents that are considered opioid‐related (Figure 1) and the number of all EMS incidents involving naloxone administration (Figure 2). In the first three months of 2018, the greatest number of suspected opioid‐related overdoses treated by EMS is among males aged 25‐34, accounting for 25% of opioid‐related overdose incidents with a known age and gender.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **All Suspected Opioid Related Incidents: 2018 (Quarter 1)** | | | | | |
|  | **11‐14** | **15‐24** | **25‐34** | **35‐44** | **45‐54 55‐64 65+ Total** |
| Male | 0 | 321 | 1,141 | 770 | 517 283 92 3,124 |
| Female | <5 | 174 | 507 | 325 | 215 161 82 1,464\* |
| Total | <5 | 495 | 1,648 | 1,095 | 732 444 174 4,588\* |
|  |  |  |  |  | \*Total of non‐suppressed cells |

**Figure 1: Percent of Opioid‐Related Overdoses**

**Among All EMS Incidents, MA: 2013‐Q1 2018**

3.5

3

2.5

2

1.5

Opioid‐Related

Overdoses EMS Incidents

1 Linear Trend

0.5

0

Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1

2013 2014

2015

**Year and Quarter**

2016

2017

2018

**Figure 2: Count of All EMS Incidents Involving**

**Naloxone Administration, MA: 2013‐Q1 2018**

6000

5000

4000

3000

2000

Naloxone

Administered EMS Incidents

1000

Linear Trend

0

Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1

2013 2014

2015

**Year and Quarter**

2016

2017

2018

**Count**

**Percent**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2016** | | | | | **2017** | | | | | **2018** |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 |
| Abington | 12 | 9 | 12 | 9 | 42 | 14 | 9 | 10 | 12 | 45 | 7 |
| Acton | \* | 6 | <5 | 6 | 21 | \* | 7 | <5 | 6 | 19 | 7 |
| Acushnet | † | <5 | \* | 5 | 12 | 7 | 7 | 6 | 5 | 25 | 6 |
| Adams | † | † | † | † | † | 5 | <5 | <5 | 10 | 19 | 11 |
| Agawam | 18 | 8 | 16 | 12 | 54 | 9 | 10 | 13 | 11 | 43 | 24 |
| Alford | † | † | † | † | † | † | † | † | † | † | † |
| Amesbury | 16 | 24 | 13 | 16 | 69 | 11 | 15 | 14 | 12 | 52 | 11 |
| Amherst | 8 | <5 | <5 | 5 | 20 | 8 | 6 | 8 | 7 | 29 | <5 |
| Andover | <5 | \* | 11 | 12 | 32 | 7 | 11 | 12 | 14 | 44 | 9 |
| Aquinnah | † | † | † | † | † | † | † | † | † | † | † |
| Arlington | 18 | 16 | 16 | 8 | 58 | 11 | 14 | 19 | 23 | 67 | <5 |
| Ashburnham | <5 | <5 | <5 | † | 9 | <5 | <5 | † | † | <5 | <5 |
| Ashby | <5 | † | <5 | <5 | 8 | † | <5 | <5 | 5 | 12 | <5 |
| Ashfield | † | † | † | <5 | <5 | † | † | † | † | † | † |
| Ashland | <5 | \* | 7 | 8 | 25 | \* | 9 | 7 | <5 | 25 | <5 |
| Athol | 5 | 8 | 9 | 16 | 38 | 7 | 15 | 12 | 8 | 42 | 19 |
| Attleboro | 21 | 39 | 38 | 40 | 138 | 36 | 31 | 46 | 31 | 144 | 43 |
| Auburn | \* | <5 | 11 | 7 | 27 | 6 | 11 | 7 | 6 | 30 | 8 |
| Avon | <5 | 6 | \* | 7 | 20 | <5 | <5 | <5 | † | 7 | † |
| Ayer | 6 | <5 | <5 | 7 | 18 | <5 | <5 | <5 | † | 7 | 5 |
| Barnstable | 44 | 54 | 62 | 59 | 219 | 63 | 48 | 90 | 44 | 245 | 26 |
| Barre | † | <5 | <5 | <5 | 8 | 6 | <5 | <5 | <5 | 13 | 6 |
| Becket | † | <5 | † | † | <5 | <5 | <5 | † | <5 | 6 | † |
| Bedford | 6 | 8 | 9 | 5 | 28 | \* | 8 | 8 | <5 | 23 | 6 |
| Belchertown | <5 | † | † | <5 | <5 | <5 | 7 | \* | 6 | 21 | 5 |
| Bellingham | 7 | 11 | 11 | 13 | 42 | 11 | 14 | 6 | 9 | 40 | 8 |
| Belmont | 10 | 11 | 7 | 5 | 33 | <5 | \* | 12 | 7 | 27 | 8 |
| Berkley | <5 | <5 | <5 | <5 | 11 | <5 | <5 | <5 | <5 | 9 | <5 |
| Berlin | <5 | <5 | † | <5 | 7 | <5 | † | <5 | † | <5 | <5 |
| Bernardston | † | † | † | † | † | † | † | † | † | † | † |
| Beverly | 24 | 31 | 24 | 31 | 110 | 25 | 35 | 23 | 23 | 106 | 23 |
| Billerica | 19 | 12 | 30 | 13 | 74 | 20 | 15 | 42 | 20 | 97 | 32 |
| Blackstone | <5 | <5 | <5 | <5 | 7 | <5 | 9 | 12 | \* | 30 | 6 |
| Blandford | † | † | † | † | † | † | † | † | † | † | † |
| Bolton | <5 | <5 | <5 | <5 | 7 | † | † | <5 | † | <5 | <5 |
| Boston | 423 | 674 | 706 | 434 | 2237 | 425 | 635 | 892 | 687 | 2639 | 601 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2016** | | | | | **2017** | | | | | **2018** |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 |
| Bourne | 18 | 28 | 32 | 12 | 90 | 15 | 30 | 17 | 22 | 84 | 5 |
| Boxborough | <5 | <5 | 5 | 7 | 18 | † | <5 | <5 | <5 | 7 | † |
| Boxford | † | <5 | <5 | <5 | 7 | <5 | <5 | † | † | <5 | <5 |
| Boylston | † | <5 | 6 | <5 | 9 | † | † | <5 | † | <5 | † |
| Braintree | 23 | 33 | 28 | 43 | 127 | 25 | 35 | 39 | 16 | 115 | 6 |
| Brewster | <5 | <5 | † | <5 | 6 | † | 7 | <5 | <5 | 12 | <5 |
| Bridgewater | <5 | 6 | † | <5 | 9 | <5 | <5 | <5 | <5 | 8 | † |
| Brimfield | † | † | † | † | † | † | † | † | † | † | † |
| Brockton | 191 | 261 | 256 | 180 | 888 | 186 | 164 | 253 | 91 | 694 | 15 |
| Brookfield | † | <5 | † | <5 | <5 | <5 | <5 | <5 | <5 | 7 | † |
| Brookline | 9 | 7 | 6 | 11 | 33 | 12 | 18 | 10 | 13 | 53 | 9 |
| Buckland | † | † | † | † | † | † | † | † | † | † | † |
| Burlington | \* | <5 | 14 | 11 | 33 | 9 | 13 | 21 | 15 | 58 | 9 |
| Cambridge | 93 | 162 | 128 | 94 | 477 | 81 | 92 | 107 | 73 | 353 | 72 |
| Canton | <5 | 13 | \* | 10 | 34 | 7 | 7 | 9 | 14 | 37 | 7 |
| Carlisle | † | † | † | † | † | † | † | 5 | † | 5 | † |
| Carver | 13 | 12 | 15 | 13 | 53 | 11 | 12 | 11 | 9 | 43 | <5 |
| Charlemont | † | † | † | † | † | † | † | † | † | † | <5 |
| Charlton | <5 | † | † | <5 | <5 | <5 | <5 | <5 | <5 | 11 | <5 |
| Chatham | <5 | <5 | <5 | <5 | 7 | 5 | <5 | <5 | <5 | 11 | <5 |
| Chelmsford | 19 | 17 | 11 | 10 | 57 | 19 | 12 | 13 | 12 | 56 | 16 |
| Chelsea | 59 | 73 | 84 | 42 | 258 | 49 | 83 | 91 | 43 | 266 | 69 |
| Cheshire | <5 | † | <5 | <5 | <5 | <5 | <5 | † | † | <5 | <5 |
| Chester | <5 | <5 | † | † | <5 | <5 | † | <5 | † | <5 | <5 |
| Chesterfield | † | † | † | † | † | † | † | <5 | † | <5 | † |
| Chicopee | 78 | 61 | 49 | 54 | 242 | 46 | 59 | 66 | 76 | 247 | 80 |
| Chilmark | <5 | † | <5 | † | <5 | † | † | † | <5 | <5 | <5 |
| Clarksburg | † | † | † | † | † | † | † | † | † | † | † |
| Clinton | <5 | 13 | \* | 28 | 55 | 6 | 12 | 14 | 17 | 49 | 9 |
| Cohasset | † | † | <5 | <5 | 5 | † | <5 | <5 | <5 | 9 | † |
| Colrain | † | † | † | † | † | † | † | † | † | † | <5 |
| Concord | <5 | 7 | <5 | <5 | 18 | <5 | <5 | <5 | <5 | 9 | <5 |
| Conway | <5 | † | † | † | <5 | † | † | † | † | † | † |
| Cummington | † | † | † | † | † | † | † | <5 | † | <5 | † |
| Dalton | 6 | <5 | <5 | <5 | 12 | <5 | † | <5 | † | 6 | † |
| Danvers | 30 | 45 | 39 | 22 | 136 | 30 | 41 | 36 | 35 | 142 | 44 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2016** | | | | | **2017** | | | | | **2018** |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 |
| Dartmouth | 18 | 25 | 25 | 23 | 91 | 18 | 27 | 20 | 25 | 90 | 24 |
| Dedham | 13 | 26 | 13 | 5 | 57 | 16 | 15 | 21 | 15 | 67 | 13 |
| Deerfield | <5 | <5 | † | † | <5 | † | <5 | † | <5 | 7 | † |
| Dennis | <5 | <5 | 9 | 7 | 18 | 11 | 11 | 20 | 14 | 56 | 7 |
| Dighton | <5 | \* | † | † | 7 | <5 | <5 | † | † | <5 | † |
| Douglas | <5 | <5 | † | † | 6 | † | † | † | <5 | <5 | <5 |
| Dover | † | † | † | † | † | † | † | <5 | † | <5 | <5 |
| Dracut | 16 | 10 | 22 | 14 | 62 | 11 | 17 | 26 | 13 | 67 | 22 |
| Dudley | † | <5 | 9 | \* | 19 | <5 | 7 | \* | 7 | 23 | 5 |
| Dunstable | † | † | <5 | † | <5 | <5 | † | <5 | <5 | <5 | <5 |
| Duxbury | <5 | 6 | <5 | <5 | 18 | <5 | <5 | <5 | <5 | 10 | <5 |
| East  Bridgewater | 6 | 15 | 9 | 7 | 37 | \* | 6 | <5 | 9 | 24 | 6 |
| East Brookfield | † | † | † | <5 | <5 | † | † | † | † | † | † |
| East  Longmeadow | <5 | 8 | \* | 9 | 23 | 7 | <5 | <5 | 6 | 19 | 5 |
| Eastham | <5 | <5 | <5 | <5 | 9 | <5 | <5 | <5 | † | 8 | <5 |
| Easthampton | 7 | 7 | 7 | 7 | 28 | <5 | 5 | 10 | <5 | 23 | 7 |
| Easton | <5 | <5 | 5 | † | 9 | <5 | <5 | 6 | 13 | 22 | 11 |
| Edgartown | <5 | <5 | <5 | <5 | 7 | <5 | <5 | <5 | † | 5 | † |
| Egremont | † | † | <5 | † | <5 | † | † | † | † | † | † |
| Erving | † | † | † | <5 | <5 | <5 | † | † | <5 | <5 | † |
| Essex | <5 | <5 | † | <5 | 5 | <5 | <5 | <5 | <5 | 5 | <5 |
| Everett | 36 | 57 | 49 | 41 | 183 | 39 | 43 | 49 | 39 | 170 | 37 |
| Fairhaven | 26 | 24 | 19 | 15 | 84 | 11 | 13 | 11 | 12 | 47 | 12 |
| Fall River | 151 | 156 | 299 | 228 | 834 | 195 | 169 | 247 | 246 | 857 | 165 |
| Falmouth | 23 | 55 | 46 | 45 | 169 | 40 | 48 | 29 | 33 | 150 | 36 |
| Fitchburg | 70 | 80 | 113 | 90 | 353 | 75 | 80 | 105 | 81 | 341 | 66 |
| Florida | † | † | † | † | † | † | † | † | † | † | † |
| Foxborough | <5 | <5 | 12 | 16 | 34 | 11 | 7 | 9 | 7 | 34 | <5 |
| Framingham | 32 | 60 | 66 | 55 | 213 | 44 | 34 | 48 | 54 | 180 | 39 |
| Franklin | 5 | 17 | 16 | 6 | 44 | 16 | 15 | \* | <5 | 46 | 10 |
| Freetown | \* | <5 | 7 | 8 | 24 | <5 | <5 | <5 | <5 | 11 | <5 |
| Gardner | 14 | 28 | 24 | 12 | 78 | 22 | 13 | 20 | 13 | 68 | 11 |
| Georgetown | <5 | <5 | <5 | <5 | 11 | <5 | <5 | † | <5 | 7 | 5 |
| Gill | <5 | <5 | † | <5 | <5 | † | † | † | † | † | † |
| Gloucester | 39 | 33 | 29 | 15 | 116 | 17 | 27 | 32 | 30 | 106 | 27 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2016** | | | | | **2017** | | | | | **2018** |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 |
| Goshen | † | † | <5 | † | <5 | † | † | † | † | † | † |
| Gosnold | † | † | † | † | † | † | † | † | † | † | † |
| Grafton | <5 | <5 | <5 | 5 | 15 | \* | 7 | 10 | <5 | 25 | <5 |
| Granby | <5 | 5 | <5 | <5 | 9 | <5 | † | <5 | 8 | 13 | 5 |
| Granville | <5 | † | † | † | <5 | † | † | † | † | † | † |
| Great  Barrington | <5 | <5 | <5 | <5 | 12 | <5 | <5 | <5 | <5 | 10 | <5 |
| Greenfield | 10 | 8 | 23 | 9 | 50 | 11 | 15 | 20 | 7 | 53 | 13 |
| Groton | <5 | † | † | <5 | 6 | † | <5 | † | † | <5 | <5 |
| Groveland | <5 | <5 | <5 | <5 | 6 | <5 | <5 | † | <5 | 5 | † |
| Hadley | 7 | <5 | \* | 5 | 19 | <5 | <5 | 7 | <5 | 15 | <5 |
| Halifax | 10 | 22 | <5 | \* | 45 | \* | <5 | 7 | 11 | 25 | 8 |
| Hamilton | <5 | <5 | † | † | <5 | <5 | <5 | <5 | <5 | 6 | † |
| Hampden | † | <5 | † | <5 | <5 | <5 | <5 | <5 | † | 5 | <5 |
| Hancock | † | † | † | † | † | † | <5 | † | † | <5 | † |
| Hanover | 6 | \* | <5 | 6 | 18 | <5 | 5 | 5 | <5 | 17 | <5 |
| Hanson | 8 | 6 | 9 | 5 | 28 | <5 | 9 | <5 | <5 | 21 | 10 |
| Hardwick | <5 | † | † | <5 | <5 | <5 | † | † | † | <5 | <5 |
| Harvard | <5 | † | † | <5 | <5 | <5 | † | † | <5 | <5 | † |
| Harwich | <5 | 7 | 6 | \* | 19 | 11 | 6 | 11 | 8 | 36 | 6 |
| Hatfield | <5 | † | † | <5 | <5 | † | <5 | <5 | † | 6 | <5 |
| Haverhill | 92 | 90 | 77 | 105 | 364 | 87 | 85 | 121 | 76 | 369 | 75 |
| Hawley | † | † | † | † | † | † | † | † | † | † | † |
| Heath | † | † | † | † | † | <5 | † | † | <5 | <5 | † |
| Hingham | <5 | <5 | <5 | 14 | 25 | <5 | <5 | 5 | <5 | 14 | <5 |
| Hinsdale | † | <5 | † | † | <5 | † | † | † | † | † | † |
| Holbrook | 16 | 17 | 21 | 18 | 72 | 17 | 18 | 17 | 9 | 61 | 8 |
| Holden | <5 | <5 | 5 | <5 | 13 | <5 | <5 | 5 | <5 | 11 | <5 |
| Holland | † | † | † | † | † | † | † | <5 | † | <5 | <5 |
| Holliston | † | † | † | † | † | <5 | <5 | <5 | 5 | 14 | <5 |
| Holyoke | 79 | 86 | 62 | 74 | 301 | 55 | 49 | 65 | 57 | 226 | 81 |
| Hopedale | † | † | † | <5 | <5 | <5 | <5 | <5 | <5 | 7 | <5 |
| Hopkinton | <5 | <5 | <5 | † | 10 | <5 | 6 | <5 | <5 | 13 | 5 |
| Hubbardston | † | <5 | <5 | † | 6 | <5 | <5 | <5 | † | 7 | <5 |
| Hudson | 11 | \* | 13 | <5 | 36 | <5 | \* | 7 | 9 | 24 | 6 |
| Hull | 11 | \* | <5 | † | 18 | <5 | <5 | <5 | † | 8 | <5 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2016** | | | | | **2017** | | | | | **2018** |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 |
| Huntington | † | † | <5 | † | <5 | † | † | <5 | † | <5 | <5 |
| Ipswich | 7 | <5 | 6 | \* | 22 | 8 | 7 | <5 | \* | 22 | <5 |
| Kingston | 6 | <5 | <5 | 9 | 20 | 6 | \* | 9 | <5 | 24 | 12 |
| Lakeville | <5 | \* | 31 | 14 | 56 | 21 | 15 | 22 | 17 | 75 | 5 |
| Lancaster | <5 | <5 | <5 | <5 | 8 | † | <5 | <5 | <5 | 6 | <5 |
| Lanesborough | † | † | † | 6 | 6 | † | <5 | <5 | † | <5 | † |
| Lawrence | 197 | 100 | 170 | 179 | 646 | 150 | 178 | 242 | 207 | 777 | 180 |
| Lee | <5 | <5 | <5 | <5 | 7 | <5 | <5 | <5 | <5 | 10 | <5 |
| Leicester | \* | <5 | 6 | 10 | 25 | 9 | 6 | 6 | 8 | 29 | 6 |
| Lenox | † | <5 | <5 | <5 | 6 | <5 | 5 | <5 | <5 | 16 | † |
| Leominster | 50 | 67 | 113 | 63 | 293 | 68 | 56 | 70 | 56 | 250 | 46 |
| Leverett | † | † | † | † | † | <5 | † | † | † | <5 | † |
| Lexington | <5 | <5 | 8 | <5 | 16 | 5 | <5 | 5 | <5 | 16 | <5 |
| Leyden | † | † | † | † | † | † | † | † | † | † | † |
| Lincoln | <5 | † | <5 | † | <5 | † | <5 | <5 | <5 | 8 | † |
| Littleton | <5 | 6 | <5 | <5 | 15 | <5 | <5 | <5 | <5 | 9 | † |
| Longmeadow | 6 | <5 | <5 | <5 | 13 | <5 | <5 | <5 | <5 | 10 | <5 |
| Lowell | 193 | 187 | 216 | 241 | 837 | 269 | 309 | 322 | 237 | 1137 | 266 |
| Ludlow | 11 | 14 | 6 | 13 | 44 | 10 | 6 | 13 | 10 | 39 | 9 |
| Lunenburg | <5 | 7 | 9 | <5 | 23 | <5 | † | <5 | <5 | 6 | <5 |
| Lynn | 97 | 113 | 137 | 123 | 470 | 117 | 147 | 172 | 150 | 586 | 117 |
| Lynnfield | <5 | <5 | <5 | <5 | 9 | 5 | <5 | <5 | <5 | 11 | <5 |
| Malden | 37 | 61 | 62 | 42 | 202 | 31 | 55 | 76 | 42 | 204 | 52 |
| Manchester | † | <5 | <5 | † | 5 | <5 | <5 | † | <5 | 6 | † |
| Mansfield | <5 | 9 | 10 | \* | 28 | 7 | 10 | 6 | 17 | 40 | 8 |
| Marblehead | 5 | 8 | 15 | 8 | 36 | 9 | <5 | \* | 10 | 28 | <5 |
| Marion | <5 | <5 | <5 | <5 | 6 | <5 | <5 | <5 | <5 | 9 | <5 |
| Marlborough | 21 | 13 | 19 | 13 | 66 | <5 | \* | 16 | 17 | 44 | 19 |
| Marshfield | 8 | 16 | 12 | 7 | 43 | 8 | 7 | 12 | 16 | 43 | 8 |
| Mashpee | <5 | 12 | 17 | \* | 42 | 16 | \* | <5 | 10 | 35 | 8 |
| Mattapoisett | <5 | 7 | <5 | <5 | 13 | <5 | <5 | 6 | 5 | 15 | 6 |
| Maynard | <5 | <5 | 5 | <5 | 12 | 9 | 9 | <5 | <5 | 23 | <5 |
| Medfield | <5 | <5 | <5 | <5 | 8 | 5 | <5 | <5 | <5 | 9 | † |
| Medford | 41 | 42 | 34 | 21 | 138 | 14 | 24 | 27 | 27 | 92 | 18 |
| Medway | <5 | <5 | 5 | 8 | 19 | \* | 8 | 17 | <5 | 35 | 8 |
| Melrose | 16 | 17 | 17 | 9 | 59 | \* | <5 | 15 | 7 | 33 | 9 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2016** | | | | | **2017** | | | | | **2018** |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 |
| Mendon | † | † | † | <5 | <5 | <5 | <5 | † | <5 | 7 | <5 |
| Merrimac | <5 | † | <5 | <5 | 5 | <5 | <5 | 7 | <5 | 15 | 6 |
| Methuen | 47 | 53 | 62 | 51 | 213 | 28 | 49 | 60 | 55 | 192 | 34 |
| Middleborough | 10 | 20 | 5 | † | 35 | <5 | <5 | <5 | <5 | 9 | <5 |
| Middlefield | † | † | <5 | † | <5 | † | <5 | † | † | <5 | † |
| Middleton | <5 | \* | 5 | † | 12 | <5 | <5 | 6 | 7 | 19 | 13 |
| Milford | 6 | 14 | 23 | 13 | 56 | 13 | 24 | 12 | 16 | 65 | 19 |
| Millbury | 7 | 19 | 17 | 8 | 51 | 8 | 12 | 10 | 14 | 44 | 8 |
| Millis | <5 | 5 | <5 | 8 | 18 | 6 | <5 | 5 | <5 | 15 | 7 |
| Millville | <5 | <5 | † | <5 | 7 | † | † | <5 | <5 | 5 | <5 |
| Milton | 7 | 12 | 9 | 8 | 36 | 9 | 9 | 9 | 5 | 32 | 8 |
| Monroe | † | † | † | † | † | † | † | † | † | † | † |
| Monson | <5 | <5 | 5 | <5 | 12 | <5 | <5 | 6 | <5 | 14 | <5 |
| Montague | \* | 10 | 8 | <5 | 29 | 6 | \* | 8 | <5 | 23 | <5 |
| Monterey | † | † | † | † | † | † | † | † | † | † | † |
| Montgomery | † | † | † | † | † | † | † | † | † | † | † |
| Mount  Washington | † | † | † | † | † | † | † | † | † | † | † |
| Nahant | <5 | <5 | † | <5 | 6 | † | <5 | <5 | † | 6 | <5 |
| Nantucket | 6 | <5 | 9 | <5 | 18 | <5 | <5 | <5 | <5 | 10 | <5 |
| Natick | 6 | 9 | 8 | 10 | 33 | 7 | 6 | 8 | 9 | 30 | 8 |
| Needham | <5 | <5 | <5 | 6 | 15 | <5 | † | <5 | <5 | 7 | <5 |
| New Ashford | † | † | † | † | † | † | † | † | † | † | † |
| New Bedford | 116 | 153 | 221 | 216 | 706 | 118 | 199 | 231 | 129 | 677 | 141 |
| New Braintree | † | † | † | <5 | <5 | † | <5 | † | † | <5 | † |
| New  Marlborough | † | † | † | † | † | † | <5 | † | † | <5 | † |
| New Salem | † | † | † | † | † | † | <5 | † | † | <5 | † |
| Newbury | <5 | † | † | † | <5 | <5 | <5 | † | <5 | 6 | † |
| Newburyport | <5 | 9 | <5 | 11 | 24 | <5 | <5 | 8 | <5 | 16 | <5 |
| Newton | 11 | 13 | 15 | 16 | 55 | 17 | 16 | 15 | 17 | 65 | 18 |
| Norfolk | 7 | <5 | <5 | <5 | 18 | <5 | <5 | <5 | <5 | 6 | <5 |
| North Adams | 11 | 27 | 22 | 14 | 74 | 9 | 9 | 17 | 13 | 48 | 12 |
| North Andover | 12 | 11 | 19 | 15 | 57 | 18 | 12 | 16 | 24 | 70 | 13 |
| North Attleboro | 13 | 21 | 18 | 16 | 68 | 10 | 25 | 21 | 22 | 78 | 21 |
| North  Brookfield | † | † | <5 | <5 | 5 | † | † | † | <5 | <5 | <5 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2016** | | | | | **2017** | | | | | **2018** |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 |
| North Reading | 5 | <5 | 9 | <5 | 21 | <5 | 9 | <5 | <5 | 17 | <5 |
| Northampton | 26 | \* | <5 | 22 | 71 | 25 | 20 | 16 | 20 | 81 | 15 |
| Northborough | 7 | <5 | 10 | <5 | 24 | <5 | <5 | 6 | <5 | 12 | <5 |
| Northbridge | \* | 7 | 7 | <5 | 22 | <5 | \* | 9 | 6 | 25 | † |
| Northfield | † | † | † | † | † | † | † | <5 | <5 | <5 | <5 |
| Norton | † | 9 | 6 | 11 | 26 | 9 | <5 | 9 | \* | 28 | 5 |
| Norwell | 5 | 7 | <5 | <5 | 19 | <5 | 7 | <5 | 5 | 19 | <5 |
| Norwood | <5 | † | <5 | 11 | 18 | 13 | 13 | 15 | 12 | 53 | 8 |
| Oak Bluffs | 5 | <5 | 5 | <5 | 14 | <5 | † | <5 | <5 | 5 | <5 |
| Oakham | † | <5 | <5 | † | <5 | <5 | † | <5 | † | <5 | <5 |
| Orange | <5 | <5 | <5 | 6 | 10 | 8 | <5 | <5 | <5 | 18 | <5 |
| Orleans | † | † | † | † | † | 5 | <5 | <5 | † | 9 | <5 |
| Otis | † | † | † | † | † | † | † | <5 | † | <5 | † |
| Oxford | \* | 10 | 22 | <5 | 40 | 11 | \* | <5 | 11 | 34 | <5 |
| Palmer | † | <5 | † | <5 | <5 | <5 | 8 | \* | 9 | 28 | 8 |
| Paxton | <5 | <5 | <5 | <5 | 6 | <5 | <5 | <5 | † | 5 | <5 |
| Peabody | 34 | 44 | 42 | 43 | 163 | 34 | 37 | 51 | 41 | 163 | 44 |
| Pelham | † | † | † | † | † | † | † | † | † | † | † |
| Pembroke | 9 | 9 | 8 | 17 | 43 | 12 | 8 | 8 | 5 | 33 | 7 |
| Pepperell | <5 | <5 | 9 | <5 | 20 | <5 | † | 7 | <5 | 14 | 7 |
| Peru | † | † | † | † | † | † | † | † | † | † | † |
| Petersham | † | <5 | † | <5 | <5 | † | † | † | † | † | † |
| Phillipston | † | † | <5 | † | <5 | † | † | † | † | † | † |
| Pittsfield | 38 | 40 | 30 | 40 | 148 | 35 | 29 | 57 | 38 | 159 | 33 |
| Plainfield | † | † | † | † | † | † | <5 | <5 | † | <5 | <5 |
| Plainville | <5 | 5 | <5 | 11 | 23 | 7 | \* | <5 | 6 | 23 | <5 |
| Plymouth | 38 | 60 | 49 | 43 | 190 | 50 | 58 | 69 | 42 | 219 | <5 |
| Plympton | † | <5 | <5 | <5 | 6 | <5 | <5 | † | † | <5 | † |
| Princeton | † | † | † | † | † | † | <5 | <5 | <5 | 5 | <5 |
| Provincetown | <5 | <5 | <5 | <5 | 11 | <5 | <5 | <5 | † | 9 | † |
| Quincy | 57 | 123 | 131 | 122 | 433 | 89 | 101 | 164 | 42 | 396 | 15 |
| Randolph | 30 | 30 | 16 | 24 | 100 | 20 | 13 | 21 | 24 | 78 | 10 |
| Raynham | 6 | 6 | 7 | 13 | 32 | 6 | 10 | 12 | 9 | 37 | 13 |
| Reading | 6 | 6 | 7 | 7 | 26 | <5 | 5 | <5 | <5 | 13 | <5 |
| Rehoboth | † | † | † | † | † | <5 | <5 | <5 | <5 | 8 | † |
| Revere | 52 | 81 | 92 | 76 | 301 | 52 | 69 | 82 | 54 | 257 | 63 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2016** | | | | | **2017** | | | | | **2018** |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 |
| Richmond | † | † | † | † | † | † | † | † | † | † | † |
| Rochester | <5 | <5 | <5 | <5 | 8 | <5 | † | <5 | <5 | 7 | <5 |
| Rockland | 42 | 28 | 24 | 22 | 116 | 17 | 19 | 23 | 20 | 79 | 17 |
| Rockport | † | † | <5 | <5 | 6 | <5 | \* | † | 6 | 13 | † |
| Rowe | † | † | † | † | † | † | † | † | † | † | † |
| Rowley | <5 | <5 | <5 | <5 | 8 | † | <5 | † | † | <5 | † |
| Royalston | <5 | <5 | <5 | † | <5 | <5 | † | † | <5 | <5 | <5 |
| Russell | † | † | † | <5 | <5 | † | <5 | † | † | <5 | <5 |
| Rutland | † | <5 | <5 | 5 | 10 | 5 | <5 | <5 | <5 | 13 | <5 |
| Salem | 47 | 62 | 78 | 60 | 247 | 54 | 56 | 78 | 44 | 232 | 39 |
| Salisbury | 25 | 33 | 33 | 17 | 108 | 19 | 25 | 34 | 29 | 107 | 17 |
| Sandisfield | † | <5 | † | † | <5 | <5 | † | † | † | <5 | † |
| Sandwich | † | † | 8 | 6 | 14 | 14 | 9 | 5 | 11 | 39 | 10 |
| Saugus | 26 | 37 | 38 | 28 | 129 | 25 | 31 | 32 | 28 | 116 | 30 |
| Savoy | † | † | † | † | † | † | † | † | † | † | † |
| Scituate | <5 | 5 | 9 | <5 | 21 | <5 | <5 | 6 | <5 | 13 | <5 |
| Seekonk | <5 | 7 | 10 | \* | 26 | <5 | 10 | 8 | \* | 29 | <5 |
| Sharon | † | <5 | 8 | <5 | 12 | <5 | <5 | <5 | 7 | 16 | 5 |
| Sheffield | <5 | † | <5 | † | <5 | † | <5 | <5 | <5 | 7 | † |
| Shelburne | <5 | † | † | <5 | <5 | <5 | † | <5 | † | <5 | † |
| Sherborn | † | † | † | <5 | <5 | † | † | † | <5 | <5 | <5 |
| Shirley | <5 | <5 | 9 | † | 13 | \* | <5 | 7 | 5 | 21 | 6 |
| Shrewsbury | 10 | 19 | 11 | 11 | 51 | 7 | 16 | 13 | 18 | 54 | 21 |
| Shutesbury | † | † | † | † | † | † | † | † | † | † | <5 |
| Somerset | 13 | 17 | 11 | 9 | 50 | 8 | 10 | 14 | 15 | 47 | 12 |
| Somerville | 39 | 52 | 56 | 50 | 197 | 27 | 39 | 43 | 24 | 133 | 30 |
| South Hadley | † | <5 | † | <5 | <5 | † | † | <5 | <5 | <5 | <5 |
| Southampton | † | <5 | <5 | <5 | 6 | <5 | <5 | † | <5 | <5 | † |
| Southborough | <5 | <5 | <5 | <5 | 6 | † | † | <5 | <5 | 5 | <5 |
| Southbridge | 11 | 26 | 22 | 37 | 96 | 8 | 14 | 20 | 6 | 48 | 7 |
| Southwick | 11 | 11 | 7 | 5 | 34 | 8 | <5 | <5 | 8 | 23 | 5 |
| Spencer | <5 | <5 | <5 | <5 | 12 | <5 | \* | 7 | 10 | 24 | <5 |
| Springfield | 182 | 198 | 164 | 177 | 721 | 115 | 172 | 205 | 154 | 646 | 167 |
| Sterling | <5 | 6 | 5 | <5 | 13 | <5 | <5 | <5 | <5 | 8 | 5 |
| Stockbridge | † | † | † | † | † | <5 | † | † | <5 | <5 | † |
| Stoneham | 6 | 23 | 11 | 12 | 52 | 9 | 6 | 18 | 6 | 39 | 12 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2016** | | | | | **2017** | | | | | **2018** |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 |
| Stoughton | 10 | 21 | 12 | 11 | 54 | 14 | 16 | 16 | 13 | 59 | 25 |
| Stow | † | <5 | <5 | † | 5 | <5 | 6 | <5 | <5 | 13 | <5 |
| Sturbridge | 6 | 11 | \* | <5 | 25 | <5 | <5 | <5 | 8 | 17 | <5 |
| Sudbury | † | <5 | † | <5 | 5 | <5 | † | <5 | <5 | 5 | <5 |
| Sunderland | <5 | <5 | <5 | <5 | 6 | † | <5 | † | † | <5 | <5 |
| Sutton | <5 | <5 | <5 | <5 | 12 | <5 | <5 | <5 | <5 | 12 | 6 |
| Swampscott | 5 | 9 | 5 | 6 | 25 | <5 | <5 | 5 | <5 | 15 | <5 |
| Swansea | 8 | 13 | 13 | 15 | 49 | 10 | <5 | 17 | <5 | 34 | 9 |
| Taunton | 75 | 117 | 73 | 59 | 324 | 39 | 75 | 90 | 41 | 245 | <5 |
| Templeton | 5 | <5 | 5 | <5 | 13 | 5 | <5 | 6 | <5 | 15 | <5 |
| Tewksbury | 12 | 24 | 21 | 24 | 81 | 37 | 41 | 29 | 20 | 127 | 41 |
| Tisbury | † | <5 | † | <5 | <5 | <5 | <5 | <5 | † | 7 | † |
| Tolland | † | † | † | † | † | † | † | † | † | † | † |
| Topsfield | † | † | 5 | † | 5 | <5 | 6 | † | <5 | 8 | <5 |
| Townsend | 6 | <5 | <5 | <5 | 15 | <5 | <5 | † | <5 | 10 | 5 |
| Truro | † | <5 | † | † | <5 | † | † | † | <5 | <5 | <5 |
| Tyngsborough | <5 | <5 | 6 | 7 | 19 | <5 | \* | 6 | 6 | 19 | 8 |
| Tyringham | † | † | † | † | † | † | † | † | † | † | † |
| Upton | <5 | <5 | <5 | <5 | 6 | † | 5 | <5 | <5 | 10 | <5 |
| Uxbridge | 9 | \* | 11 | <5 | 29 | \* | <5 | 7 | 6 | 22 | <5 |
| Wakefield | 10 | 11 | 18 | 15 | 54 | 10 | 17 | 18 | 13 | 58 | 9 |
| Wales | † | † | † | † | † | † | † | <5 | <5 | <5 | <5 |
| Walpole | 6 | 10 | 9 | 12 | 37 | 9 | \* | 8 | <5 | 29 | 10 |
| Waltham | 38 | 36 | 40 | 30 | 144 | 20 | 35 | 45 | 25 | 125 | 34 |
| Ware | 9 | \* | 5 | <5 | 23 | <5 | 6 | 11 | <5 | 22 | 8 |
| Wareham | 28 | 33 | 40 | 32 | 133 | 39 | 36 | 47 | 50 | 172 | 34 |
| Warren | 5 | <5 | † | <5 | 9 | 6 | <5 | <5 | † | 13 | <5 |
| Warwick | † | † | † | † | † | † | <5 | † | † | <5 | † |
| Washington | † | † | † | † | † | † | † | † | <5 | <5 | † |
| Watertown | 28 | 23 | 7 | 22 | 80 | 5 | 11 | 15 | 13 | 44 | 15 |
| Wayland | † | <5 | <5 | <5 | <5 | <5 | <5 | <5 | † | 5 | <5 |
| Webster | 16 | 14 | 20 | 22 | 72 | 13 | 18 | 23 | 17 | 71 | 14 |
| Wellesley | <5 | <5 | <5 | 6 | 12 | <5 | <5 | <5 | 6 | 14 | <5 |
| Wellfleet | <5 | <5 | <5 | <5 | 9 | † | 5 | <5 | <5 | 10 | † |
| Wendell | † | † | † | † | † | † | † | † | † | † | † |
| Wenham | <5 | <5 | † | † | <5 | <5 | † | <5 | <5 | <5 | † |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2016** | | | | | **2017** | | | | | **2018** |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 |
| West Boylston | <5 | <5 | <5 | 5 | 12 | 6 | <5 | <5 | 6 | 16 | 5 |
| West  Bridgewater | 7 | <5 | <5 | † | 15 | <5 | 5 | <5 | 10 | 21 | <5 |
| West Brookfield | † | † | † | † | † | <5 | <5 | <5 | 5 | 10 | <5 |
| West Newbury | <5 | <5 | † | <5 | 5 | † | † | <5 | † | <5 | <5 |
| West  Springfield | 30 | 29 | 19 | 29 | 107 | 11 | 15 | 40 | 23 | 89 | 23 |
| West  Stockbridge | † | † | † | † | † | <5 | † | † | † | <5 | † |
| West Tisbury | <5 | <5 | † | † | <5 | † | <5 | <5 | † | <5 | † |
| Westborough | 14 | 26 | 25 | 22 | 87 | 14 | 26 | 15 | 11 | 66 | 12 |
| Westfield | 28 | 15 | 16 | 21 | 80 | 11 | 14 | 15 | 20 | 60 | 27 |
| Westford | 8 | <5 | <5 | 5 | 20 | 5 | 9 | 5 | 6 | 25 | 7 |
| Westhampton | † | † | † | † | † | <5 | † | † | † | <5 | <5 |
| Westminster | <5 | <5 | † | <5 | 7 | <5 | 5 | <5 | 8 | 19 | 5 |
| Weston | <5 | <5 | † | <5 | 5 | 9 | <5 | <5 | † | 11 | <5 |
| Westport | \* | 9 | <5 | 10 | 28 | 7 | 8 | 6 | 5 | 26 | 9 |
| Westwood | <5 | <5 | <5 | <5 | 14 | <5 | 6 | <5 | 5 | 13 | † |
| Weymouth | 35 | 61 | 81 | 37 | 214 | 50 | 57 | 70 | 62 | 239 | 50 |
| Whately | † | † | † | † | † | <5 | <5 | † | <5 | <5 | † |
| Whitman | 7 | 7 | 10 | 18 | 42 | 9 | 6 | 19 | 9 | 43 | 13 |
| Wilbraham | <5 | 7 | <5 | 6 | 17 | <5 | 6 | \* | 5 | 20 | 6 |
| Williamsburg | † | <5 | † | † | <5 | <5 | <5 | <5 | † | <5 | <5 |
| Williamstown | <5 | <5 | <5 | <5 | 9 | † | <5 | <5 | † | <5 | <5 |
| Wilmington | 17 | 10 | \* | <5 | 40 | 6 | 11 | 16 | 20 | 53 | 19 |
| Winchendon | <5 | <5 | 6 | 6 | 17 | † | 5 | 5 | 6 | 16 | 7 |
| Winchester | 6 | <5 | <5 | 7 | 18 | <5 | † | <5 | <5 | 7 | <5 |
| Windsor | † | † | † | <5 | <5 | † | † | † | † | † | † |
| Winthrop | 13 | 18 | 21 | 8 | 60 | <5 | \* | 9 | 9 | 30 | 9 |
| Woburn | 42 | 38 | 36 | 28 | 144 | 43 | 36 | 45 | 28 | 152 | 31 |
| Worcester | 327 | 396 | 480 | 408 | 1611 | 262 | 361 | 448 | 432 | 1503 | 283 |
| Worthington | † | † | <5 | † | <5 | † | † | † | † | † | † |
| Wrentham | \* | 12 | 11 | <5 | 35 | 6 | 6 | 7 | 6 | 25 | <5 |
| Yarmouth | 15 | 31 | 20 | 26 | 92 | 16 | 29 | 35 | 17 | 97 | 10 |
| Unknown | 66 | 116 | 109 | 72 | 363 | 51 | 49 | 62 | 49 | 211 | 35 |
| **Grand Total** | **4744** | **5956** | **6327** | **5389** | **22416** | **4619** | **5509** | **6808** | **5277** | **22213** | **4,640** |

# Technical Notes

Suspected opioid related incidents for all cities/towns except for Boston are identified using an algorithm that DPH developed with CDC using multiple fields in the MATRIS system. In Boston, this algorithm was applied to a subset of incidents that were reported in their internal “Narcotic Related Incidents” database. This data brief was supported by funds made available from the Centers for Disease Control and Prevention, under B01OT009024, NU17CE924877, and 1U17CE002724. The findings of this data brief are those of the authors and do not necessarily represent the official position of or endorsement by the Centers for Disease Control and Prevention.