

POSTED: MAY 2019

Massachusetts Department of Public Health

**MA Opioid-Related EMS Incidents 2013-2018**

# 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

Between 2013 and 2016, there was 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). However, since 2016, the proportion of EMS incidents that are opioid-related as well as the overall number of EMS incidents involving the administration of naloxone has stabilized. This pattern also closely resembles the 2013-2018 trend in the confirmed and estimated opioid-related overdose death rate (see “Q1 2019 Opioid-related Overdose Deaths among MA Residents”, Figure 3). In 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: 2013** | | | | | | | | |
|  | **11-14** | **15-24** | **25-34** | **35-44** | **45-54** | **55-64** | **65+** | **Total** |
| Male | 9 | 901 | 1,957 | 1,012 | 838 | 460 | 154 | 5,331 |
| Female | 6 | 599 | 1,068 | 585 | 508 | 280 | 192 | 3,238 |
| Total | 15 | 1,500 | 3,025 | 1,597 | 1,346 | 740 | 346 | 8,569 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **All Suspected Opioid Related Incidents: 2014** | | | | | | | | |
|  | **11-14** | **15-24** | **25-34** | **35-44** | **45-54** | **55-64** | **65+** | **Total** |
| Male | <5 | 1,471 | 3,478 | 1,632 | 1,274 | 661 | 241 | 8,757\* |
| Female | <5 | 890 | 1,631 | 841 | 740 | 334 | 235 | 4,671\* |
| Total | <5 | 2,361 | 5,109 | 2,473 | 2,014 | 995 | 476 | 13,428\* |
|  |  |  |  |  | \*Total of non-suppressed cells | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **All Suspected Opioid Related Incidents: 2015** | | | | | | | | |
|  | **11-14** | **15-24** | **25-34** | **35-44** | **45-54** | **55-64** | **65+** | **Total** |
| Male | <5 | 1,690 | 4,715 | 2,526 | 1,755 | 854 | 283 | 11,823\* |
| Female | 7 | 928 | 2,276 | 1,122 | 878 | 461 | 260 | 5,932 |
| Total | Ŧ | 2,618 | 6,991 | 3,648 | 2,633 | 1,315 | 543 | 17,755\* |
|  |  | \*Total of non-suppressed cells; Ŧ Complementary suppression | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **All Suspected Opioid Related Incidents: 2016** | | | | | | | | |
|  | **11-14** | **15-24** | **25-34** | **35-44** | **45-54** | **55-64** | **65+** | **Total** |
| Male | 5 | 1,765 | 5,869 | 3,332 | 2,240 | 1,284 | 389 | 14,884 |
| Female | 5 | 1,005 | 2,829 | 1,531 | 1,019 | 597 | 294 | 7,280 |
| Total | 10 | 2,770 | 8,698 | 4,863 | 3,259 | 1,881 | 683 | 22,164 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **All Suspected Opioid Related Incidents: 2017** | | | | | | | | |
|  | **11-14** | **15-24** | **25-34** | **35-44** | **45-54** | **55-64** | **65+** | **Total** |
| Male | 5 | 1,463 | 5,906 | 3,439 | 2,332 | 1,257 | 422 | 14,824 |
| Female | 5 | 883 | 2,700 | 1,633 | 1,006 | 652 | 304 | 7,183 |
| Total | 10 | 2,346 | 8,606 | 5,072 | 3,338 | 1,909 | 726 | 22,007 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **All Suspected Opioid Related Incidents: 2018** | | | | | | | | |
|  | **11-14** | **15-24** | **25-34** | **35-44** | **45-54** | **55-64** | **65+** | **Total** |
| Male | <5 | 1,265 | 5,089 | 3,532 | 2,362 | 1,340 | 464 | 14,052\* |
| Female | 8 | 640 | 2,491 | 1,534 | 900 | 661 | 285 | 6,519 |
| Total | Ŧ | 1,905 | 7,580 | 5,066 | 3,262 | 2,001 | 749 | 20,571\* |
|  |  | \*Total of non-suppressed cells; Ŧ Complementary suppression | | | | | | |

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

**Among All EMS Incidents, MA: 2013-2018**

3

2.5

2

1.5

1

0.5

0

2013

2014

2015

2016

2017

2018

**Year**

Opioid-Related Overdoses EMS Incidents

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

**Naloxone Administration, MA: 2013-2018**

20000

18000

16000

14000

12000

10000

8000

6000

4000

2000

0

2013

2014

2015

2016

2017

2018

**Year**

Naloxone Administered EMS Incidents

**Count**

**Percent**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2017** | | | | | **2018** | | | | |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** |
| Abington | 14 | 9 | 10 | 12 | **45** | \* | 9 | <5 | 8 | **28** |
| Acton | \* | 7 | <5 | 6 | **19** | 7 | † | <5 | <5 | **13** |
| Acushnet | 7 | 7 | 6 | 5 | **25** | 6 | <5 | <5 | <5 | **14** |
| Adams | 5 | <5 | <5 | 10 | **19** | 11 | <5 | \* | 10 | **32** |
| Agawam | 9 | 10 | 13 | 11 | **43** | 24 | 24 | 19 | 11 | **78** |
| Alford | † | † | † | † | **†** | † | † | † | † | **†** |
| Amesbury | 11 | 15 | 14 | 12 | **52** | 11 | 7 | 13 | 7 | **38** |
| Amherst | 8 | 6 | 8 | 7 | **29** | <5 | \* | 7 | 5 | **21** |
| Andover | 7 | 11 | 12 | 14 | **44** | 9 | 6 | 11 | 12 | **38** |
| Aquinnah | † | † | † | † | **†** | † | † | † | † | **†** |
| Arlington | 11 | 14 | 19 | 23 | **67** | <5 | 13 | 14 | \* | **33** |
| Ashburnham | <5 | <5 | † | † | **<5** | <5 | † | <5 | † | **<5** |
| Ashby | † | <5 | <5 | 5 | **12** | <5 | <5 | <5 | † | **7** |
| Ashfield | † | † | † | † | **†** | † | † | † | † | **†** |
| Ashland | \* | 9 | 7 | <5 | **25** | <5 | <5 | 5 | <5 | **15** |
| Athol | 7 | 15 | 12 | 8 | **42** | 19 | 33 | 18 | 21 | **91** |
| Attleboro | 36 | 31 | 46 | 31 | **144** | 43 | 30 | 43 | 40 | **156** |
| Auburn | 6 | 11 | 7 | 6 | **30** | 8 | 15 | 7 | 5 | **35** |
| Avon | <5 | <5 | <5 | † | **7** | † | 5 | <5 | <5 | **12** |
| Ayer | <5 | <5 | <5 | † | **7** | 5 | 8 | <5 | <5 | **16** |
| Barnstable | 63 | 48 | 90 | 44 | **245** | 33 | 29 | 31 | 23 | **116** |
| Barre | 6 | <5 | <5 | <5 | **13** | 6 | <5 | 8 | <5 | **18** |
| Becket | <5 | <5 | † | <5 | **6** | † | † | <5 | † | **<5** |
| Bedford | \* | 8 | 8 | <5 | **23** | 6 | 8 | \* | <5 | **21** |
| Belchertown | <5 | 7 | \* | 6 | **21** | \* | 7 | 6 | <5 | **22** |
| Bellingham | 11 | 14 | 6 | 9 | **40** | 8 | † | 5 | 7 | **20** |
| Belmont | <5 | \* | 12 | 7 | **27** | 8 | 5 | <5 | <5 | **19** |
| Berkley | <5 | <5 | <5 | <5 | **9** | <5 | <5 | <5 | <5 | **8** |
| Berlin | <5 | † | <5 | † | **<5** | <5 | † | <5 | † | **<5** |
| Bernardston | † | † | † | † | **†** | † | † | † | † | **†** |
| Beverly | 25 | 35 | 23 | 23 | **106** | 23 | 19 | 32 | 23 | **97** |
| Billerica | 20 | 15 | 42 | 20 | **97** | 32 | 17 | 16 | 14 | **79** |
| Blackstone | <5 | 9 | 12 | \* | **30** | \* | 10 | <5 | 7 | **27** |
| Blandford | † | † | † | † | **†** | † | † | † | <5 | **<5** |
| Bolton | <5 | † | <5 | † | **<5** | <5 | † | <5 | † | **<5** |
| Boston | 425 | 635 | 892 | 687 | **2639** | 602 | 683 | 750 | 573 | **2608** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2017** | | | | | **2018** | | | | |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** |
| Bourne | 15 | 30 | 17 | 22 | **84** | 5 | 16 | 20 | 19 | **60** |
| Boxborough | † | <5 | <5 | <5 | **7** | † | † | † | <5 | **<5** |
| Boxford | <5 | <5 | † | † | **<5** | <5 | <5 | <5 | <5 | **5** |
| Boylston | † | † | <5 | † | **<5** | † | <5 | † | † | **<5** |
| Braintree | 25 | 35 | 39 | 16 | **115** | 12 | <5 | <5 | <5 | **21** |
| Brewster | † | 7 | <5 | <5 | **12** | <5 | <5 | 5 | <5 | **13** |
| Bridgewater | <5 | <5 | <5 | <5 | **8** | † | <5 | \* | 16 | **27** |
| Brimfield | † | † | † | † | **†** | † | † | † | <5 | **<5** |
| Brockton | 186 | 164 | 253 | 91 | **694** | 44 | 49 | 37 | 34 | **164** |
| Brookfield | <5 | <5 | <5 | <5 | **7** | † | <5 | <5 | <5 | **<5** |
| Brookline | 12 | 18 | 10 | 13 | **53** | 9 | 10 | 12 | 11 | **42** |
| Buckland | † | † | † | † | **†** | † | † | † | † | **†** |
| Burlington | 9 | 13 | 21 | 15 | **58** | 9 | 10 | 14 | 13 | **46** |
| Cambridge | 81 | 92 | 107 | 73 | **353** | 72 | 99 | 84 | 93 | **348** |
| Canton | 7 | 7 | 9 | 14 | **37** | \* | 9 | 8 | <5 | **27** |
| Carlisle | † | † | 5 | † | **5** | † | <5 | † | <5 | **5** |
| Carver | 11 | 12 | 11 | 9 | **43** | <5 | <5 | 11 | <5 | **21** |
| Charlemont | † | † | † | † | **†** | <5 | † | † | † | **<5** |
| Charlton | <5 | <5 | <5 | <5 | **11** | <5 | 5 | † | <5 | **11** |
| Chatham | 5 | <5 | <5 | <5 | **11** | <5 | <5 | <5 | † | **7** |
| Chelmsford | 19 | 12 | 13 | 12 | **56** | 19 | 15 | 15 | 14 | **63** |
| Chelsea | 49 | 83 | 91 | 43 | **266** | 69 | 70 | 72 | 36 | **247** |
| Cheshire | <5 | <5 | † | † | **<5** | <5 | † | <5 | <5 | **6** |
| Chester | <5 | † | <5 | † | **<5** | <5 | † | † | † | **<5** |
| Chesterfield | † | † | <5 | † | **<5** | † | <5 | † | † | **<5** |
| Chicopee | 46 | 59 | 66 | 76 | **247** | 81 | 111 | 62 | 64 | **318** |
| Chilmark | † | † | † | <5 | **<5** | <5 | † | <5 | † | **<5** |
| Clarksburg | † | † | † | † | **†** | † | † | † | † | **†** |
| Clinton | 6 | 12 | 14 | 17 | **49** | 9 | 19 | 10 | 6 | **44** |
| Cohasset | † | <5 | <5 | <5 | **9** | † | † | <5 | † | **<5** |
| Colrain | † | † | † | † | **†** | <5 | † | <5 | <5 | **<5** |
| Concord | <5 | <5 | <5 | <5 | **9** | <5 | 5 | <5 | † | **11** |
| Conway | † | † | † | † | **†** | † | † | † | <5 | **<5** |
| Cummington | † | † | <5 | † | **<5** | † | † | † | † | **†** |
| Dalton | <5 | † | <5 | † | **6** | † | <5 | <5 | 5 | **13** |
| Danvers | 30 | 41 | 36 | 35 | **142** | 44 | 41 | 26 | 30 | **141** |
| Dartmouth | 18 | 27 | 21 | 29 | **95** | 34 | 24 | 31 | 32 | **121** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2017** | | | | | **2018** | | | | |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** |
| Dedham | 16 | 15 | 21 | 15 | **67** | 13 | 21 | 6 | 7 | **47** |
| Deerfield | † | <5 | † | <5 | **7** | † | <5 | <5 | 5 | **8** |
| Dennis | 11 | 11 | 20 | 16 | **58** | 7 | 14 | 10 | 8 | **39** |
| Dighton | <5 | <5 | † | † | **<5** | † | <5 | † | † | **<5** |
| Douglas | † | † | † | <5 | **<5** | <5 | <5 | <5 | <5 | **11** |
| Dover | † | † | <5 | † | **<5** | <5 | <5 | <5 | <5 | **6** |
| Dracut | 11 | 17 | 26 | 13 | **67** | 28 | 25 | 18 | 20 | **91** |
| Dudley | <5 | 7 | \* | 7 | **23** | 5 | 18 | 12 | 11 | **46** |
| Dunstable | <5 | † | <5 | <5 | **<5** | <5 | † | † | † | **<5** |
| Duxbury | <5 | <5 | <5 | <5 | **10** | <5 | <5 | <5 | <5 | **9** |
| East  Bridgewater | \* | 6 | <5 | 9 | **24** | 6 | 5 | 15 | 8 | **34** |
| East Brookfield | † | † | † | † | **†** | † | <5 | <5 | † | **<5** |
| East  Longmeadow | 7 | \* | <5 | 6 | **20** | 7 | <5 | 8 | \* | **24** |
| Eastham | <5 | <5 | <5 | † | **8** | <5 | <5 | <5 | <5 | **6** |
| Easthampton | <5 | 5 | 10 | <5 | **23** | 7 | 12 | 7 | 5 | **31** |
| Easton | <5 | <5 | 6 | 13 | **22** | 11 | 12 | 9 | 11 | **43** |
| Edgartown | <5 | <5 | <5 | † | **5** | † | † | <5 | <5 | **5** |
| Egremont | † | † | † | † | **†** | † | † | † | † | **†** |
| Erving | <5 | † | † | <5 | **<5** | † | <5 | † | † | **<5** |
| Essex | <5 | <5 | <5 | <5 | **5** | <5 | † | <5 | † | **<5** |
| Everett | 39 | 43 | 49 | 39 | **170** | 37 | 40 | 27 | 42 | **146** |
| Fairhaven | 11 | 13 | 11 | 12 | **47** | 12 | 19 | 12 | 12 | **55** |
| Fall River | 195 | 169 | 247 | 248 | **859** | 165 | 258 | 370 | 274 | **1067** |
| Falmouth | 40 | 48 | 29 | 34 | **151** | 36 | 35 | 30 | 32 | **133** |
| Fitchburg | 75 | 80 | 105 | 81 | **341** | 66 | 78 | 82 | 42 | **268** |
| Florida | † | † | † | † | **†** | † | † | † | † | **†** |
| Foxborough | 11 | 7 | 9 | 7 | **34** | <5 | \* | 10 | 9 | **29** |
| Framingham | 44 | 34 | 48 | 54 | **180** | 39 | 58 | 49 | 48 | **194** |
| Franklin | 16 | 15 | \* | <5 | **46** | 10 | 9 | 5 | 10 | **34** |
| Freetown | <5 | <5 | <5 | <5 | **11** | <5 | 8 | <5 | † | **14** |
| Gardner | 22 | 13 | 20 | 13 | **68** | 11 | 23 | 29 | 22 | **85** |
| Georgetown | <5 | <5 | † | <5 | **7** | \* | <5 | † | 7 | **16** |
| Gill | † | † | † | † | **†** | † | <5 | <5 | <5 | **7** |
| Gloucester | 17 | 27 | 32 | 30 | **106** | 27 | 29 | 32 | 21 | **109** |
| Goshen | † | † | † | † | **†** | † | † | † | † | **†** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2017** | | | | | **2018** | | | | |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** |
| Gosnold | † | † | † | † | **†** | † | † | † | † | **†** |
| Grafton | \* | 7 | 10 | <5 | **25** | <5 | 6 | <5 | 8 | **18** |
| Granby | <5 | † | <5 | 8 | **13** | \* | 6 | <5 | 5 | **19** |
| Granville | † | † | † | † | **†** | † | † | † | † | **†** |
| Great  Barrington | 6 | <5 | <5 | 6 | **19** | <5 | <5 | 5 | 8 | **18** |
| Greenfield | 11 | 15 | 20 | 7 | **53** | 13 | 10 | 22 | 15 | **60** |
| Groton | † | <5 | † | † | **<5** | <5 | <5 | † | † | **5** |
| Groveland | <5 | <5 | † | <5 | **7** | † | <5 | <5 | <5 | **5** |
| Hadley | <5 | <5 | 7 | <5 | **15** | <5 | <5 | <5 | <5 | **10** |
| Halifax | \* | <5 | 7 | 11 | **25** | 8 | 5 | <5 | <5 | **19** |
| Hamilton | <5 | <5 | <5 | <5 | **6** | † | <5 | † | <5 | **<5** |
| Hampden | <5 | <5 | <5 | † | **6** | 5 | <5 | <5 | 5 | **15** |
| Hancock | † | <5 | † | † | **<5** | † | † | † | † | **†** |
| Hanover | <5 | 5 | 5 | <5 | **17** | <5 | 5 | <5 | <5 | **12** |
| Hanson | <5 | 9 | <5 | <5 | **21** | 10 | <5 | \* | 5 | **21** |
| Hardwick | <5 | † | † | † | **<5** | <5 | <5 | <5 | <5 | **6** |
| Harvard | <5 | † | † | <5 | **<5** | † | † | † | <5 | **<5** |
| Harwich | 11 | 6 | 11 | 8 | **36** | 6 | 8 | <5 | <5 | **21** |
| Hatfield | † | <5 | <5 | † | **6** | <5 | † | † | † | **<5** |
| Haverhill | 87 | 85 | 121 | 76 | **369** | 75 | 82 | 74 | 78 | **309** |
| Hawley | † | † | † | † | **†** | † | † | † | † | **†** |
| Heath | <5 | † | † | <5 | **<5** | † | † | † | † | **†** |
| Hingham | <5 | <5 | 5 | <5 | **14** | <5 | <5 | <5 | 5 | **12** |
| Hinsdale | † | † | † | † | **†** | † | <5 | † | <5 | **<5** |
| Holbrook | 17 | 18 | 17 | 9 | **61** | 8 | 12 | 12 | 6 | **38** |
| Holden | <5 | <5 | 5 | <5 | **11** | <5 | <5 | <5 | <5 | **8** |
| Holland | † | † | <5 | † | **<5** | <5 | <5 | † | † | **<5** |
| Holliston | <5 | <5 | <5 | 5 | **14** | <5 | <5 | † | <5 | **6** |
| Holyoke | 55 | 49 | 65 | 57 | **226** | 81 | 159 | 102 | 18 | **360** |
| Hopedale | <5 | <5 | <5 | <5 | **7** | <5 | <5 | † | <5 | **8** |
| Hopkinton | <5 | 6 | <5 | <5 | **13** | 5 | <5 | 5 | <5 | **12** |
| Hubbardston | <5 | <5 | <5 | † | **7** | <5 | † | <5 | 5 | **7** |
| Hudson | 5 | 6 | 7 | 9 | **27** | 6 | 9 | 8 | 6 | **29** |
| Hull | <5 | <5 | <5 | † | **8** | <5 | <5 | 6 | <5 | **10** |
| Huntington | † | † | <5 | † | **<5** | <5 | † | † | † | **<5** |
| Ipswich | 8 | 7 | <5 | \* | **22** | <5 | <5 | 9 | † | **14** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2017** | | | | | **2018** | | | | |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** |
| Kingston | 6 | \* | 9 | <5 | **24** | 12 | 7 | <5 | <5 | **26** |
| Lakeville | 21 | 15 | 22 | 17 | **75** | \* | 5 | 10 | <5 | **21** |
| Lancaster | † | <5 | <5 | <5 | **6** | <5 | † | 8 | <5 | **11** |
| Lanesborough | † | <5 | <5 | † | **<5** | † | <5 | <5 | <5 | **9** |
| Lawrence | 151 | 178 | 242 | 207 | **778** | 180 | 169 | 183 | 132 | **664** |
| Lee | <5 | <5 | <5 | <5 | **10** | <5 | 5 | <5 | <5 | **11** |
| Leicester | 9 | 6 | 6 | 8 | **29** | 6 | 5 | <5 | <5 | **19** |
| Lenox | <5 | 5 | <5 | <5 | **16** | † | <5 | <5 | † | **5** |
| Leominster | 68 | 56 | 70 | 56 | **250** | 46 | 62 | 55 | 70 | **233** |
| Leverett | <5 | † | † | † | **<5** | † | † | † | † | **†** |
| Lexington | 5 | <5 | 5 | <5 | **16** | <5 | <5 | <5 | <5 | **8** |
| Leyden | † | † | † | † | **†** | † | † | † | † | **†** |
| Lincoln | † | <5 | <5 | <5 | **8** | † | † | † | † | **†** |
| Littleton | <5 | <5 | <5 | <5 | **9** | † | † | <5 | <5 | **<5** |
| Longmeadow | <5 | <5 | <5 | <5 | **10** | <5 | <5 | <5 | 7 | **15** |
| Lowell | 269 | 309 | 322 | 238 | **1138** | 320 | 290 | 337 | 282 | **1229** |
| Ludlow | 10 | 6 | 13 | 10 | **39** | 9 | 18 | 6 | 7 | **40** |
| Lunenburg | <5 | † | <5 | <5 | **6** | <5 | \* | 8 | 8 | **26** |
| Lynn | 117 | 147 | 172 | 150 | **586** | 117 | 162 | 202 | 110 | **591** |
| Lynnfield | 5 | <5 | <5 | <5 | **11** | <5 | <5 | <5 | 8 | **17** |
| Malden | 31 | 55 | 76 | 42 | **204** | 52 | 50 | 55 | 41 | **198** |
| Manchester | <5 | <5 | † | <5 | **6** | † | † | † | <5 | **<5** |
| Mansfield | 7 | 10 | 6 | 17 | **40** | 8 | 12 | 7 | 7 | **34** |
| Marblehead | 9 | <5 | \* | 10 | **28** | <5 | 6 | 9 | <5 | **19** |
| Marion | <5 | <5 | <5 | <5 | **9** | <5 | † | <5 | <5 | **5** |
| Marlborough | 5 | 10 | 19 | 17 | **51** | 20 | 12 | 19 | 23 | **74** |
| Marshfield | 8 | 7 | 12 | 16 | **43** | 8 | <5 | <5 | 6 | **19** |
| Mashpee | 16 | \* | <5 | 10 | **35** | \* | 12 | 9 | <5 | **32** |
| Mattapoisett | <5 | <5 | 6 | 5 | **15** | 6 | <5 | 10 | <5 | **22** |
| Maynard | 9 | 9 | <5 | <5 | **23** | <5 | <5 | <5 | <5 | **8** |
| Medfield | 5 | <5 | <5 | <5 | **10** | † | <5 | <5 | <5 | **5** |
| Medford | 14 | 24 | 27 | 27 | **92** | 18 | 19 | 34 | 21 | **92** |
| Medway | \* | 8 | 17 | <5 | **35** | 8 | <5 | \* | 7 | **25** |
| Melrose | \* | <5 | 15 | 7 | **33** | 9 | 9 | 5 | 5 | **28** |
| Mendon | <5 | <5 | † | <5 | **7** | <5 | † | <5 | <5 | **7** |
| Merrimac | <5 | <5 | 7 | <5 | **15** | 6 | † | <5 | <5 | **10** |
| Methuen | 28 | 49 | 60 | 55 | **192** | 34 | 24 | 11 | 38 | **107** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2017** | | | | | **2018** | | | | |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** |
| Middleborough | <5 | <5 | <5 | <5 | **9** | <5 | <5 | † | 5 | **9** |
| Middlefield | † | <5 | † | † | **<5** | † | † | † | † | **†** |
| Middleton | <5 | <5 | 6 | 7 | **19** | 13 | <5 | \* | 8 | **31** |
| Milford | 13 | 24 | 12 | 16 | **65** | 19 | 12 | 9 | 24 | **64** |
| Millbury | 8 | 12 | 10 | 14 | **44** | 8 | 13 | 11 | 11 | **43** |
| Millis | 6 | <5 | 5 | <5 | **15** | 7 | † | <5 | <5 | **14** |
| Millville | † | † | <5 | <5 | **5** | <5 | <5 | † | <5 | **7** |
| Milton | 9 | 9 | 9 | 5 | **32** | 8 | <5 | 7 | <5 | **22** |
| Monroe | † | † | † | † | **†** | † | † | † | † | **†** |
| Monson | <5 | <5 | 6 | <5 | **14** | <5 | <5 | <5 | <5 | **11** |
| Montague | 6 | \* | 8 | <5 | **23** | <5 | 10 | 6 | <5 | **22** |
| Monterey | † | † | † | † | **†** | † | † | † | † | **†** |
| Montgomery | † | † | † | † | **†** | † | † | † | † | **†** |
| Mount  Washington | † | † | † | † | **†** | † | † | <5 | † | **<5** |
| Nahant | † | <5 | <5 | † | **6** | <5 | <5 | † | <5 | **7** |
| Nantucket | <5 | <5 | <5 | <5 | **10** | <5 | <5 | 5 | 5 | **14** |
| Natick | 7 | 6 | 8 | 9 | **30** | 8 | 5 | 11 | 9 | **33** |
| Needham | <5 | † | <5 | <5 | **7** | <5 | <5 | <5 | <5 | **10** |
| New Ashford | † | † | † | † | **†** | † | † | † | † | **†** |
| New Bedford | 118 | 199 | 234 | 129 | **680** | 142 | 249 | 189 | 120 | **700** |
| New Braintree | † | <5 | † | † | **<5** | † | † | <5 | † | **<5** |
| New  Marlborough | † | <5 | † | † | **<5** | † | † | <5 | <5 | **<5** |
| New Salem | † | <5 | † | † | **<5** | † | † | † | † | **†** |
| Newbury | <5 | <5 | † | <5 | **6** | † | <5 | <5 | 5 | **9** |
| Newburyport | <5 | <5 | 8 | <5 | **16** | <5 | 5 | <5 | <5 | **17** |
| Newton | 17 | 16 | 15 | 17 | **65** | 18 | 13 | 12 | 17 | **60** |
| Norfolk | <5 | <5 | <5 | <5 | **6** | <5 | <5 | <5 | † | **5** |
| North Adams | 9 | 9 | 17 | 13 | **48** | 12 | 13 | 26 | 8 | **59** |
| North Andover | 19 | 12 | 16 | 24 | **71** | 13 | \* | 12 | <5 | **36** |
| North  Attleboro | 10 | 25 | 21 | 22 | **78** | 21 | 18 | 14 | 18 | **71** |
| North  Brookfield | † | † | † | <5 | **<5** | <5 | † | † | <5 | **<5** |
| North Reading | <5 | 9 | <5 | <5 | **17** | <5 | 7 | <5 | 9 | **23** |
| Northampton | 25 | 20 | 16 | 20 | **81** | 15 | 30 | 20 | 24 | **89** |
| Northborough | <5 | <5 | 6 | <5 | **12** | <5 | 6 | <5 | 8 | **19** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2017** | | | | | **2018** | | | | |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** |
| Northbridge | <5 | \* | 9 | 6 | **25** | † | † | <5 | † | **<5** |
| Northfield | † | † | <5 | <5 | **<5** | <5 | <5 | † | <5 | **<5** |
| Norton | 9 | <5 | 9 | \* | **28** | \* | 8 | 5 | <5 | **22** |
| Norwell | <5 | 7 | <5 | 5 | **19** | <5 | 5 | <5 | 5 | **16** |
| Norwood | 13 | 13 | 15 | 12 | **53** | \* | 12 | 15 | <5 | **38** |
| Oak Bluffs | <5 | † | <5 | <5 | **5** | <5 | † | † | † | **<5** |
| Oakham | <5 | † | <5 | † | **<5** | <5 | † | † | † | **<5** |
| Orange | 8 | <5 | <5 | <5 | **18** | <5 | 11 | 10 | \* | **29** |
| Orleans | 5 | <5 | <5 | † | **9** | <5 | <5 | <5 | 7 | **16** |
| Otis | † | † | <5 | † | **<5** | † | † | † | † | **†** |
| Oxford | 11 | \* | <5 | 11 | **34** | <5 | 14 | \* | 17 | **46** |
| Palmer | <5 | 8 | \* | 9 | **28** | 8 | 15 | 13 | 8 | **44** |
| Paxton | <5 | <5 | <5 | † | **5** | <5 | <5 | <5 | † | **7** |
| Peabody | 34 | 37 | 51 | 41 | **163** | 44 | 56 | 38 | 35 | **173** |
| Pelham | † | † | † | † | **†** | † | † | <5 | † | **<5** |
| Pembroke | 12 | 8 | 8 | 5 | **33** | \* | 7 | <5 | 7 | **22** |
| Pepperell | <5 | † | 7 | <5 | **14** | 7 | <5 | <5 | <5 | **14** |
| Peru | † | † | † | † | **†** | † | † | † | † | **†** |
| Petersham | † | † | † | † | **†** | † | † | † | † | **†** |
| Phillipston | † | † | † | † | **†** | † | † | † | † | **†** |
| Pittsfield | 35 | 29 | 57 | 38 | **159** | 33 | 61 | 64 | 36 | **194** |
| Plainfield | † | <5 | <5 | † | **<5** | <5 | † | <5 | <5 | **6** |
| Plainville | 7 | \* | <5 | 6 | **23** | <5 | <5 | 5 | <5 | **15** |
| Plymouth | 50 | 58 | 69 | 42 | **219** | 8 | \* | † | <5 | **20** |
| Plympton | <5 | <5 | † | † | **<5** | † | <5 | <5 | <5 | **<5** |
| Princeton | † | <5 | <5 | <5 | **5** | <5 | <5 | † | <5 | **5** |
| Provincetown | <5 | <5 | <5 | † | **9** | † | <5 | 14 | <5 | **21** |
| Quincy | 89 | 101 | 164 | 42 | **396** | 24 | 40 | 33 | 21 | **118** |
| Randolph | 20 | 13 | 21 | 24 | **78** | 10 | 9 | 14 | 23 | **56** |
| Raynham | 6 | 10 | 12 | 9 | **37** | 13 | 12 | 10 | 16 | **51** |
| Reading | <5 | 5 | <5 | <5 | **13** | <5 | <5 | <5 | <5 | **8** |
| Rehoboth | <5 | <5 | <5 | <5 | **8** | † | † | <5 | <5 | **<5** |
| Revere | 52 | 69 | 82 | 54 | **257** | 63 | 69 | 70 | 49 | **251** |
| Richmond | † | † | † | † | **†** | † | <5 | <5 | † | **<5** |
| Rochester | <5 | † | <5 | <5 | **7** | <5 | <5 | † | <5 | **6** |
| Rockland | 17 | 19 | 23 | 20 | **79** | 17 | 16 | 13 | 14 | **60** |
| Rockport | <5 | \* | † | 6 | **13** | † | † | <5 | <5 | **<5** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2017** | | | | | **2018** | | | | |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** |
| Rowe | † | † | † | † | **†** | † | † | † | † | **†** |
| Rowley | † | <5 | † | † | **<5** | † | <5 | <5 | † | **<5** |
| Royalston | <5 | † | † | <5 | **<5** | <5 | <5 | † | † | **<5** |
| Russell | † | <5 | † | † | **<5** | <5 | <5 | † | † | **<5** |
| Rutland | 5 | <5 | <5 | <5 | **13** | <5 | <5 | † | † | **<5** |
| Salem | 54 | 56 | 78 | 44 | **232** | 39 | 51 | 52 | 37 | **179** |
| Salisbury | 19 | 25 | 34 | 29 | **107** | 17 | 22 | 26 | 17 | **82** |
| Sandisfield | <5 | † | † | † | **<5** | † | † | † | † | **†** |
| Sandwich | 14 | 9 | 5 | 11 | **39** | 10 | 12 | \* | <5 | **35** |
| Saugus | 25 | 31 | 32 | 28 | **116** | 30 | 27 | 21 | 16 | **94** |
| Savoy | † | † | † | † | **†** | † | † | † | † | **†** |
| Scituate | <5 | <5 | 6 | <5 | **13** | <5 | <5 | 5 | 6 | **16** |
| Seekonk | <5 | 10 | 8 | \* | **29** | <5 | <5 | 5 | 8 | **18** |
| Sharon | <5 | <5 | <5 | 7 | **16** | 5 | <5 | <5 | <5 | **15** |
| Sheffield | † | 7 | <5 | <5 | **12** | † | † | <5 | <5 | **5** |
| Shelburne | <5 | † | <5 | † | **<5** | † | <5 | <5 | † | **<5** |
| Sherborn | † | † | † | <5 | **<5** | <5 | † | <5 | † | **<5** |
| Shirley | \* | <5 | 7 | 5 | **21** | 6 | 8 | 6 | 5 | **25** |
| Shrewsbury | 7 | 16 | 13 | 18 | **54** | 24 | 25 | 14 | 14 | **77** |
| Shutesbury | † | † | † | † | **†** | <5 | † | <5 | † | **<5** |
| Somerset | 8 | 10 | 14 | 15 | **47** | 12 | 14 | \* | <5 | **35** |
| Somerville | 27 | 39 | 43 | 24 | **133** | 30 | 31 | 35 | 26 | **122** |
| South Hadley | † | † | <5 | <5 | **<5** | <5 | 11 | 11 | \* | **31** |
| Southampton | <5 | <5 | † | <5 | **<5** | † | <5 | <5 | † | **7** |
| Southborough | † | † | <5 | <5 | **5** | <5 | <5 | 6 | † | **8** |
| Southbridge | 8 | 14 | 20 | 7 | **49** | 8 | 20 | 24 | 23 | **75** |
| Southwick | 8 | <5 | <5 | 8 | **23** | 5 | 10 | 5 | 13 | **33** |
| Spencer | <5 | \* | 7 | 10 | **24** | <5 | 12 | \* | 7 | **29** |
| Springfield | 115 | 186 | 212 | 161 | **674** | 184 | 278 | 262 | 207 | **931** |
| Sterling | <5 | <5 | <5 | <5 | **8** | \* | 5 | 9 | <5 | **21** |
| Stockbridge | <5 | † | † | <5 | **<5** | † | <5 | † | † | **<5** |
| Stoneham | 9 | 6 | 18 | 6 | **39** | 12 | \* | 10 | <5 | **34** |
| Stoughton | 14 | 16 | 16 | 13 | **59** | 25 | 15 | 22 | 19 | **81** |
| Stow | <5 | 6 | <5 | <5 | **13** | <5 | † | <5 | <5 | **6** |
| Sturbridge | <5 | <5 | <5 | 8 | **17** | <5 | 8 | 8 | \* | **23** |
| Sudbury | <5 | † | <5 | <5 | **5** | <5 | <5 | <5 | <5 | **8** |
| Sunderland | † | <5 | † | † | **<5** | <5 | † | <5 | † | **<5** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2017** | | | | | **2018** | | | | |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** |
| Sutton | <5 | <5 | <5 | <5 | **12** | 6 | <5 | <5 | 7 | **17** |
| Swampscott | <5 | <5 | 5 | <5 | **15** | <5 | <5 | <5 | <5 | **12** |
| Swansea | 10 | <5 | 17 | <5 | **34** | \* | 13 | <5 | 11 | **36** |
| Taunton | 39 | 75 | 90 | 41 | **245** | 11 | \* | <5 | 10 | **28** |
| Templeton | 5 | <5 | 6 | <5 | **15** | <5 | <5 | <5 | <5 | **14** |
| Tewksbury | 37 | 41 | 29 | 20 | **127** | 47 | 26 | 29 | 23 | **125** |
| Tisbury | <5 | <5 | <5 | † | **7** | † | † | <5 | <5 | **<5** |
| Tolland | † | † | † | † | **†** | † | † | † | † | **†** |
| Topsfield | <5 | 6 | † | <5 | **8** | <5 | † | † | <5 | **6** |
| Townsend | <5 | <5 | † | <5 | **10** | \* | 9 | <5 | † | **16** |
| Truro | † | † | † | <5 | **<5** | <5 | <5 | <5 | <5 | **5** |
| Tyngsborough | <5 | \* | 6 | 6 | **19** | 10 | 10 | <5 | <5 | **28** |
| Tyringham | † | † | † | † | **†** | † | † | † | † | **†** |
| Upton | † | 5 | <5 | <5 | **10** | <5 | † | <5 | <5 | **5** |
| Uxbridge | \* | <5 | 7 | 6 | **22** | <5 | 11 | <5 | <5 | **22** |
| Wakefield | 10 | 17 | 18 | 13 | **58** | 9 | 18 | 13 | 5 | **45** |
| Wales | † | † | <5 | <5 | **<5** | <5 | <5 | <5 | † | **5** |
| Walpole | 9 | \* | 8 | <5 | **29** | 10 | 17 | 11 | 6 | **44** |
| Waltham | 20 | 35 | 45 | 25 | **125** | 34 | 31 | 23 | 16 | **104** |
| Ware | <5 | 6 | 11 | <5 | **22** | 8 | 10 | 9 | 8 | **35** |
| Wareham | 39 | 36 | 47 | 50 | **172** | 34 | 41 | 49 | 33 | **157** |
| Warren | 6 | <5 | <5 | † | **13** | <5 | 6 | <5 | <5 | **14** |
| Warwick | † | <5 | † | † | **<5** | † | † | <5 | † | **<5** |
| Washington | † | † | † | <5 | **<5** | † | † | † | † | **†** |
| Watertown | 5 | 11 | 15 | 13 | **44** | 15 | 18 | 20 | 11 | **64** |
| Wayland | <5 | <5 | <5 | † | **5** | <5 | † | † | † | **<5** |
| Webster | 13 | 18 | 23 | 17 | **71** | 14 | 28 | 30 | 28 | **100** |
| Wellesley | <5 | <5 | <5 | 6 | **14** | <5 | <5 | 7 | 5 | **17** |
| Wellfleet | † | 5 | <5 | <5 | **10** | † | <5 | <5 | <5 | **<5** |
| Wendell | † | † | † | † | **†** | † | † | † | † | **†** |
| Wenham | <5 | † | <5 | <5 | **<5** | † | <5 | † | <5 | **<5** |
| West Boylston | 6 | <5 | <5 | 6 | **16** | \* | 5 | 7 | <5 | **21** |
| West  Bridgewater | <5 | 5 | <5 | 10 | **21** | <5 | 7 | <5 | <5 | **13** |
| West  Brookfield | <5 | <5 | <5 | 5 | **10** | <5 | <5 | <5 | <5 | **9** |
| West Newbury | † | † | <5 | † | **<5** | <5 | <5 | † | † | **<5** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2017** | | | | | **2018** | | | | |
| City/Town | Q1 | Q2 | Q3 | Q4 | **Total** | Q1 | Q2 | Q3 | Q4 | **Total** |
| West  Springfield | 11 | 15 | 40 | 23 | **89** | 23 | 35 | 23 | 20 | **101** |
| West  Stockbridge | <5 | † | † | † | **<5** | † | <5 | † | † | **<5** |
| West Tisbury | † | <5 | <5 | † | **<5** | † | † | † | † | **†** |
| Westborough | 14 | 26 | 15 | 11 | **66** | 12 | 13 | 8 | 12 | **45** |
| Westfield | 11 | 14 | 15 | 21 | **61** | 27 | 27 | 20 | 14 | **88** |
| Westford | 5 | 9 | 5 | 6 | **25** | \* | 10 | <5 | † | **20** |
| Westhampton | <5 | † | † | † | **<5** | <5 | † | † | † | **<5** |
| Westminster | <5 | 5 | <5 | 8 | **19** | \* | <5 | 5 | 6 | **19** |
| Weston | 9 | <5 | <5 | † | **11** | <5 | <5 | † | † | **<5** |
| Westport | 7 | 8 | 6 | 5 | **26** | 9 | 9 | 7 | 6 | **31** |
| Westwood | <5 | 6 | <5 | 5 | **13** | † | <5 | <5 | † | **<5** |
| Weymouth | 50 | 57 | 70 | 62 | **239** | 50 | 50 | 32 | 38 | **170** |
| Whately | <5 | <5 | † | <5 | **<5** | † | † | <5 | † | **<5** |
| Whitman | 9 | 6 | 19 | 9 | **43** | 13 | 5 | 9 | 11 | **38** |
| Wilbraham | <5 | 6 | \* | 5 | **20** | 6 | 6 | 8 | 7 | **27** |
| Williamsburg | <5 | <5 | <5 | † | **<5** | <5 | † | † | † | **<5** |
| Williamstown | † | <5 | <5 | † | **<5** | <5 | <5 | † | <5 | **6** |
| Wilmington | 6 | 11 | 16 | 20 | **53** | 19 | 12 | \* | <5 | **41** |
| Winchendon | † | 5 | 5 | 6 | **16** | 7 | 8 | \* | <5 | **25** |
| Winchester | <5 | † | <5 | <5 | **7** | <5 | <5 | <5 | 6 | **13** |
| Windsor | † | † | † | † | **†** | † | † | † | † | **†** |
| Winthrop | <5 | \* | 9 | 9 | **30** | 9 | \* | 11 | <5 | **32** |
| Woburn | 43 | 36 | 45 | 28 | **152** | 31 | 37 | 26 | 32 | **126** |
| Worcester | 262 | 361 | 448 | 432 | **1503** | 342 | 451 | 461 | 445 | **1699** |
| Worthington | † | † | † | † | **†** | † | † | † | † | **†** |
| Wrentham | 6 | 6 | 7 | 6 | **25** | <5 | <5 | <5 | † | **8** |
| Yarmouth | 16 | 29 | 35 | 17 | **97** | 10 | 19 | 15 | 13 | **57** |
| Unknown | 51 | 49 | 62 | 49 | **211** | 35 | 32 | 7 | 8 | **82** |
| **Grand Total** | 4632 | 5534 | 6823 | 5305 | **22294** | 4883 | 5753 | 5655 | 4657 | **20948** |

# 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.

# Source

* Office of Emergency Medical Services, Bureau of Health Care Safety and Quality, MDPH