



MA Opioid-Related EMS Incidents 2013-September 2017

Massachusetts Department of Public Health

POSTED: FEBRUARY 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 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 nine months of 2017, the greatest number of suspected opioid-related overdoses treated by EMS is among males aged 25-34, accounting for 27% of opioid-related overdose incidents with a known age and gender.

All Suspected Opioid Related Incidents: 2017 (Quarter 1)								
	11-14	15-24	25-34	35-44	45-54	55-64	65+	Total
Male	<7	320	1258	620	409	250	102	2959
Female	<7	210	566	288	210	143	73	1490
Total	<7	530	1824	908	619	393	175	4449

All Suspected Opioid Related Incidents: 2017 (Quarter 2)								
	11-14	15-24	25-34	35-44	45-54	55-64	65+	Total
Male	0	365	1340	821	553	303	82	3464
Female	0	218	679	386	246	151	69	1749
Total	0	583	2019	1207	799	454	151	5213

All Suspected Opioid Related Incidents: 2017 (Quarter 3)								
	11-14	15-24	25-34	35-44	45-54	55-64	65+	Total
Male	<7	429	1694	1058	682	350	128	4341
Female	<7	233	766	513	270	172	76	2030
Total	<7	662	2460	1571	952	522	204	6371

Figure 1: Percent of Opioid-Related Overdoses Among All EMS Incidents, MA: 2013-Q3 2017

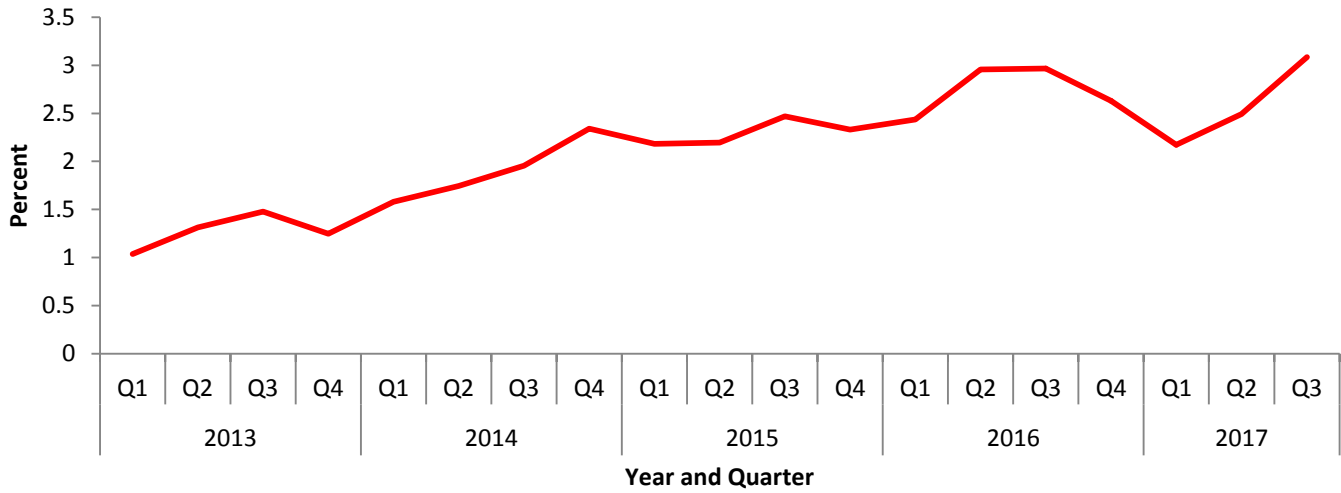
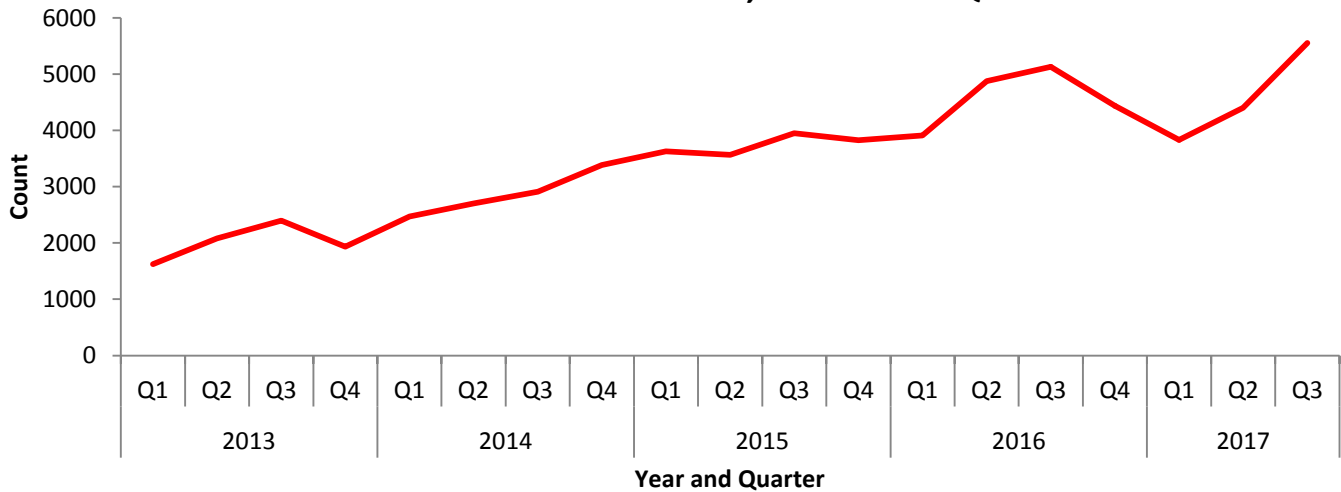


Figure 2: Count of All EMS Incidents Involving Naloxone Administration, MA: 2013-Q3 2017



Please note, counts in this table reflect the town in which the incident occurred (not the city/town of residence as shown in the table of deaths by city/town). † indicates no opioid overdose incidents were recorded, which may be due to non-reporting by EMS services or no incidents occurring.

City/Town	<u>2015</u>					<u>2016</u>					<u>2017</u>		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3
Abington	*	<7	<7	†	10	12	9	12	9	42	14	9	10
Acton	9	<7	7	<7	25	<7	<7	<7	<7	21	<7	7	<7
Acushnet	<7	<7	<7	†	<7	†	<7	<7	<7	12	7	7	<7
Adams	†	†	†	†	†	†	†	†	†	†	<7	<7	<7
Agawam	<7	<7	<7	21	30	18	8	16	12	54	9	10	13
Alford	†	†	†	†	†	†	†	†	†	†	†	†	†
Amesbury	<7	13	*	8	33	16	24	13	16	69	11	15	14
Amherst	<7	<7	<7	7	18	8	<7	<7	<7	20	8	<7	<7
Andover	<7	13	<7	<7	28	<7	<7	11	12	32	7	11	12
Aquinnah	†	†	†	†	†	†	†	†	†	†	†	†	†
Arlington	16	16	34	21	87	18	16	16	8	58	11	14	19
Ashburnham	†	†	†	†	†	<7	<7	<7	†	9	<7	<7	†
Ashby	†	†	<7	<7	<7	<7	†	<7	<7	8	†	<7	<7
Ashfield	†	†	†	<7	<7	†	†	†	<7	<7	†	†	†
Ashland	<7	<7	<7	<7	9	<7	*	7	8	25	<7	9	7
Athol	<7	*	9	14	36	<7	*	9	16	38	7	15	12
Attleboro	25	21	30	19	95	21	39	38	40	138	36	31	46
Auburn	<7	†	<7	8	13	<7	<7	11	7	27	<7	11	7
Avon	<7	<7	<7	<7	15	<7	<7	<7	7	20	<7	<7	<7
Ayer	†	<7	<7	†	<7	<7	<7	<7	7	18	<7	<7	<7
Barnstable	94	57	64	52	267	44	54	62	59	219	63	48	86
Barre	<7	<7	<7	<7	8	†	<7	<7	<7	8	<7	<7	<7
Becket	†	<7	†	†	<7	†	<7	†	†	<7	<7	<7	†
Bedford	<7	<7	<7	<7	14	<7	8	9	<7	28	<7	8	8
Belchertown	<7	†	†	<7	<7	<7	†	†	<7	<7	<7	†	<7
Bellingham	8	<7	8	*	26	7	11	11	13	42	11	14	<7
Belmont	<7	7	<7	<7	18	10	11	*	<7	33	<7	<7	12
Berkley	<7	†	<7	†	<7	<7	<7	<7	<7	11	<7	<7	<7
Berlin	<7	†	<7	<7	<7	<7	<7	†	<7	7	<7	†	<7
Bernardston	†	†	†	†	†	†	†	†	†	†	†	†	†
Beverly	21	27	34	22	104	24	31	24	31	110	25	35	23
Billerica	<7	11	*	†	26	19	12	30	13	74	20	15	42
Blackstone	†	<7	<7	<7	8	<7	<7	<7	<7	7	<7	9	12
Blandford	†	†	†	†	†	†	†	†	†	†	†	†	†
Bolton	<7	<7	†	<7	<7	<7	<7	<7	<7	7	†	†	<7

Please note, counts in this table reflect the town in which the incident occurred (not the city/town of residence as shown in the table of deaths by city/town). † indicates no opioid overdose incidents were recorded, which may be due to non-reporting by EMS services or no incidents occurring.

City/Town	<u>2015</u>					<u>2016</u>					<u>2017</u>		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3
Boston	525	489	529	489	2032	423	674	707	435	2239	356	493	691
Bourne	<7	<7	21	18	47	18	28	32	12	90	15	30	13
Boxborough	†	†	<7	†	<7	<7	<7	<7	7	18	†	<7	<7
Boxford	<7	<7	<7	<7	<7	†	<7	<7	<7	7	<7	<7	†
Boylston	†	†	<7	<7	<7	†	<7	<7	<7	9	†	†	<7
Braintree	27	14	19	27	87	23	33	28	43	127	25	35	39
Brewster	7	†	<7	<7	15	<7	<7	†	<7	<7	†	7	<7
Bridgewater	<7	<7	<7	<7	7	<7	<7	†	<7	9	<7	<7	<7
Brimfield	†	†	†	†	†	†	†	†	†	†	†	†	†
Brockton	231	192	91	180	694	191	261	256	180	888	186	164	253
Brookfield	<7	<7	†	<7	<7	†	<7	†	<7	<7	<7	<7	†
Brookline	9	8	<7	*	30	*	7	<7	10	31	12	18	10
Buckland	†	†	†	†	†	†	†	†	†	†	†	†	†
Burlington	10	<7	<7	7	24	<7	<7	14	11	33	9	13	21
Cambridge	57	74	79	74	284	93	162	128	94	477	81	92	107
Canton	<7	<7	<7	<7	12	<7	13	*	10	34	7	7	9
Carlisle	†	†	†	†	†	†	†	†	†	†	†	†	<7
Carver	<7	<7	<7	8	23	13	12	15	13	53	11	12	11
Charlemont	†	†	†	†	†	†	†	†	†	†	†	†	†
Charlton	†	†	†	†	†	<7	†	†	<7	<7	<7	<7	<7
Chatham	<7	<7	<7	<7	13	<7	<7	<7	<7	7	<7	<7	<7
Chelmsford	8	14	22	9	53	19	17	11	10	57	19	12	13
Chelsea	35	71	87	73	266	59	73	84	42	258	49	83	91
Cheshire	†	†	†	<7	<7	<7	†	<7	<7	<7	<7	<7	†
Chester	†	†	†	†	†	†	<7	†	†	<7	<7	†	<7
Chesterfield	†	†	†	†	†	†	†	†	†	†	†	†	<7
Chicopee	37	70	50	79	236	78	61	49	54	242	46	55	66
Chilmark	†	†	<7	†	<7	<7	†	<7	†	<7	†	†	†
Clarksburg	†	†	†	†	†	†	†	†	†	†	†	†	†
Clinton	10	11	11	9	41	<7	13	*	28	55	<7	12	14
Cohasset	<7	†	†	†	<7	†	†	<7	<7	<7	†	<7	<7
Colrain	†	<7	†	†	<7	†	†	†	†	†	†	†	†
Concord	<7	<7	<7	<7	17	<7	7	<7	<7	18	<7	<7	<7
Conway	†	†	†	†	†	<7	†	†	†	<7	†	†	†
Cummington	†	†	†	†	†	†	†	†	†	†	†	†	<7
Dalton	<7	<7	†	<7	8	<7	<7	<7	<7	12	<7	†	<7

Please note, counts in this table reflect the town in which the incident occurred (not the city/town of residence as shown in the table of deaths by city/town). † indicates no opioid overdose incidents were recorded, which may be due to non-reporting by EMS services or no incidents occurring.

City/Town	<u>2015</u>					<u>2016</u>					<u>2017</u>		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3
Danvers	40	20	43	34	137	30	45	39	22	136	30	41	36
Dartmouth	13	22	17	20	72	18	25	25	23	91	19	26	17
Dedham	15	12	<7	<7	38	*	26	13	<7	57	16	15	19
Deerfield	<7	<7	<7	†	<7	<7	<7	†	†	<7	†	<7	†
Dennis	14	<7	8	<7	34	<7	<7	9	*	18	11	11	20
Dighton	<7	<7	<7	<7	9	<7	<7	†	†	7	<7	<7	†
Douglas	<7	†	<7	†	<7	<7	<7	†	†	<7	†	†	†
Dover	†	<7	†	†	<7	†	†	†	†	†	†	†	<7
Dracut	18	19	23	22	82	16	10	22	14	62	11	17	26
Dudley	†	10	<7	<7	13	†	<7	9	*	19	<7	7	<7
Dunstable	†	†	<7	†	<7	†	†	<7	†	<7	<7	†	<7
Duxbury	<7	<7	<7	<7	12	<7	<7	<7	<7	18	<7	<7	<7
East Bridgewater	20	<7	*	11	43	<7	15	9	*	37	<7	<7	<7
East Brookfield	†	<7	†	<7	<7	†	†	†	<7	<7	†	†	†
East Longmeadow	<7	<7	<7	8	18	<7	8	<7	9	23	7	<7	<7
Eastham	<7	<7	<7	†	<7	<7	<7	<7	<7	9	<7	<7	<7
Easthampton	<7	<7	<7	†	<7	†	†	<7	†	<7	†	†	†
Easton	7	†	<7	<7	13	<7	<7	<7	†	9	<7	<7	7
Edgartown	†	<7	†	<7	<7	<7	<7	<7	<7	7	<7	<7	†
Egremont	†	†	†	†	†	†	†	<7	†	<7	†	†	†
Erving	<7	†	†	<7	<7	†	†	†	<7	<7	<7	†	†
Essex	<7	†	<7	†	<7	<7	<7	†	<7	<7	<7	<7	<7
Everett	37	27	37	28	129	36	57	49	41	183	39	43	49
Fairhaven	13	21	23	16	73	26	24	19	15	84	11	13	11
Fall River	26	73	157	185	441	151	156	299	228	834	195	169	246
Falmouth	32	33	18	13	96	23	55	46	45	169	40	48	28
Fitchburg	43	47	55	68	213	70	80	94	66	310	54	48	67
Florida	†	†	†	†	†	†	†	†	†	†	†	†	†
Foxborough	<7	†	<7	†	7	<7	<7	12	16	34	11	7	9
Framingham	43	57	44	36	180	32	60	66	55	213	44	34	48
Franklin	*	<7	13	12	37	<7	17	16	<7	44	16	15	12
Freetown	<7	<7	9	<7	19	<7	<7	7	8	24	<7	<7	<7
Gardner	19	20	25	21	85	14	28	24	12	78	22	13	20
Georgetown	<7	<7	<7	<7	15	<7	<7	<7	<7	11	<7	<7	†
Gill	†	†	†	†	†	<7	<7	†	<7	<7	†	†	†

Please note, counts in this table reflect the town in which the incident occurred (not the city/town of residence as shown in the table of deaths by city/town). † indicates no opioid overdose incidents were recorded, which may be due to non-reporting by EMS services or no incidents occurring.

City/Town	<u>2015</u>					<u>2016</u>					<u>2017</u>		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3
Gloucester	26	24	30	24	104	39	33	29	15	116	17	27	32
Goshen	†	†	†	†	†	†	†	<7	†	<7	†	†	†
Gosnold	†	†	†	†	†	†	†	†	†	†	†	†	†
Grafton	<7	10	8	<7	24	<7	<7	<7	<7	15	<7	7	10
Granby	<7	<7	<7	<7	10	<7	<7	<7	<7	9	<7	†	<7
Granville	†	<7	<7	†	<7	<7	†	†	†	<7	†	†	†
Great Barrington	<7	†	†	<7	<7	<7	<7	<7	<7	12	<7	<7	<7
Greenfield	<7	8	<7	13	32	10	8	23	9	50	11	15	20
Groton	†	†	†	†	†	<7	†	†	<7	<7	†	<7	†
Groveland	†	†	<7	†	<7	<7	<7	<7	<7	<7	<7	<7	†
Hadley	<7	<7	<7	7	14	7	<7	<7	<7	19	<7	<7	<7
Halifax	16	9	*	<7	36	10	22	<7	*	45	<7	<7	7
Hamilton	†	<7	<7	<7	<7	<7	<7	†	†	<7	<7	<7	<7
Hampden	<7	<7	†	†	<7	†	<7	†	<7	<7	<7	<7	<7
Hancock	†	†	†	†	†	†	†	†	†	†	†	<7	†
Hanover	9	<7	<7	<7	20	<7	<7	<7	<7	18	<7	<7	<7
Hanson	14	14	9	8	45	8	<7	9	<7	28	<7	9	<7
Hardwick	<7	†	<7	<7	<7	<7	†	†	<7	<7	<7	†	†
Harvard	†	<7	†	†	<7	<7	†	†	<7	<7	<7	†	†
Harwich	10	<7	*	8	28	<7	7	<7	<7	19	11	<7	11
Hatfield	<7	†	<7	†	<7	†	†	†	<7	<7	†	<7	<7
Haverhill	72	79	91	100	342	92	90	77	105	364	87	85	121
Hawley	†	†	†	†	†	†	†	†	†	†	†	†	†
Heath	†	<7	†	<7	<7	†	†	†	†	†	<7	†	†
Hingham	<7	<7	<7	<7	11	<7	<7	<7	14	25	<7	<7	<7
Hinsdale	†	†	†	†	†	†	<7	†	†	<7	†	†	†
Holbrook	10	<7	13	<7	33	16	17	21	18	72	17	18	13
Holden	<7	<7	<7	<7	15	<7	<7	<7	<7	13	<7	<7	<7
Holland	†	†	†	†	†	†	†	†	†	†	†	†	<7
Holliston	†	†	<7	<7	<7	†	†	†	†	†	<7	<7	<7
Holyoke	54	62	57	91	264	79	86	62	74	301	55	49	65
Hopedale	<7	<7	<7	<7	10	†	†	†	<7	<7	<7	<7	†
Hopkinton	<7	<7	<7	<7	12	<7	<7	<7	†	10	<7	<7	<7
Hubbardston	<7	<7	†	†	<7	†	<7	<7	†	<7	<7	<7	<7
Hudson	<7	7	18	*	37	11	*	13	<7	36	<7	<7	7
Hull	<7	†	<7	†	<7	11	<7	<7	†	18	<7	<7	<7

Please note, counts in this table reflect the town in which the incident occurred (not the city/town of residence as shown in the table of deaths by city/town). † indicates no opioid overdose incidents were recorded, which may be due to non-reporting by EMS services or no incidents occurring.

City/Town	<u>2015</u>					<u>2016</u>					<u>2017</u>		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3
Huntington	†	†	†	<7	<7	†	†	<7	†	<7	†	†	<7
Ipswich	<7	<7	<7	<7	12	7	<7	<7	<7	22	8	7	<7
Kingston	10	<7	8	<7	26	<7	<7	<7	9	20	<7	<7	9
Lakeville	<7	†	<7	<7	10	<7	*	31	14	56	21	15	22
Lancaster	<7	<7	<7	<7	7	<7	<7	<7	<7	8	†	<7	<7
Lanesborough	<7	†	†	†	<7	†	†	†	<7	<7	†	<7	<7
Lawrence	136	87	112	98	433	197	100	170	179	646	150	178	242
Lee	†	<7	<7	†	<7	<7	<7	<7	<7	7	<7	<7	<7
Leicester	<7	8	<7	<7	21	<7	<7	<7	10	25	9	<7	<7
Lenox	<7	†	<7	<7	<7	†	<7	<7	<7	<7	<7	<7	<7
Leominster	23	41	57	40	161	50	67	113	63	293	68	56	70
Leverett	†	†	†	†	†	†	†	†	†	†	<7	†	†
Lexington	<7	8	<7	<7	17	<7	<7	8	<7	16	<7	<7	<7
Leyden	†	†	†	†	†	†	†	†	†	†	†	†	†
Lincoln	†	†	†	†	†	<7	†	<7	†	<7	†	<7	<7
Littleton	†	<7	<7	<7	<7	<7	<7	<7	<7	15	<7	<7	<7
Longmeadow	<7	<7	<7	<7	16	<7	<7	<7	<7	13	<7	<7	<7
Lowell	172	202	241	151	766	193	187	216	241	837	269	309	322
Ludlow	9	7	12	21	49	11	14	<7	*	44	10	<7	13
Lunenburg	<7	7	13	<7	28	<7	7	9	<7	23	<7	†	<7
Lynn	53	91	63	76	283	97	113	137	123	470	117	147	172
Lynnfield	<7	<7	<7	<7	15	<7	<7	<7	<7	9	<7	<7	<7
Malden	22	82	50	34	188	37	61	62	42	202	31	55	76
Manchester	†	<7	<7	<7	<7	†	<7	<7	†	<7	<7	<7	†
Mansfield	<7	<7	<7	†	7	<7	9	10	<7	28	7	9	<7
Marblehead	<7	<7	<7	<7	13	<7	*	15	8	36	9	<7	<7
Marion	<7	<7	<7	<7	9	<7	<7	<7	<7	<7	<7	<7	<7
Marlborough	12	17	14	10	53	21	13	19	13	66	<7	9	16
Marshfield	<7	<7	10	8	30	8	16	12	7	43	8	7	12
Mashpee	14	11	*	<7	39	<7	12	17	*	42	16	8	†
Mattapoissett	<7	<7	<7	<7	12	<7	7	<7	<7	13	<7	<7	<7
Maynard	7	<7	<7	<7	14	<7	<7	<7	<7	12	9	9	<7
Medfield	†	<7	<7	†	<7	<7	<7	<7	<7	8	<7	<7	<7
Medford	25	28	40	30	123	41	42	34	21	138	14	24	27
Medway	<7	†	<7	<7	8	<7	<7	<7	8	19	7	8	16
Melrose	7	<7	13	<7	29	16	17	17	9	59	7	<7	15

Please note, counts in this table reflect the town in which the incident occurred (not the city/town of residence as shown in the table of deaths by city/town). † indicates no opioid overdose incidents were recorded, which may be due to non-reporting by EMS services or no incidents occurring.

City/Town	<u>2015</u>					<u>2016</u>					<u>2017</u>		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3
Mendon	†	†	†	†	†	†	†	†	<7	<7	<7	<7	†
Merrimac	<7	<7	<7	<7	15	<7	†	<7	<7	<7	<7	<7	7
Methuen	72	27	31	54	184	47	53	62	51	213	24	34	42
Middleborough	22	<7	*	11	48	*	20	<7	†	35	<7	<7	<7
Middlefield	†	†	†	†	†	†	†	<7	†	<7	†	<7	†
Middleton	<7	<7	<7	<7	<7	<7	<7	<7	†	12	<7	<7	<7
Milford	<7	<7	14	11	36	<7	14	23	*	56	13	23	12
Millbury	12	9	14	10	45	7	19	17	8	51	8	12	10
Millis	†	†	<7	†	<7	<7	<7	<7	8	18	<7	<7	<7
Millville	<7	<7	†	<7	<7	<7	<7	†	<7	7	†	†	<7
Milton	<7	*	13	7	32	7	12	9	8	36	9	9	9
Monroe	†	†	†	†	†	†	†	†	†	†	†	†	†
Monson	<7	<7	<7	7	11	<7	<7	<7	<7	12	<7	<7	<7
Montague	<7	<7	<7	<7	16	*	10	8	<7	29	<7	<7	8
Monterey	†	†	†	†	†	†	†	†	†	†	†	†	†
Montgomery	†	†	†	†	†	†	†	†	†	†	†	†	†
Mount Washington	†	†	†	†	†	†	†	†	†	†	†	†	†
Nahant	<7	<7	†	<7	7	<7	<7	†	<7	<7	†	<7	<7
Nantucket	<7	<7	†	<7	11	<7	<7	9	<7	18	<7	<7	<7
Natick	<7	<7	9	9	29	<7	9	*	10	33	7	<7	8
Needham	<7	<7	<7	†	9	<7	<7	<7	<7	15	<7	†	<7
New Ashford	†	†	†	†	†	†	†	†	†	†	†	†	†
New Bedford	151	177	211	147	686	116	153	221	216	706	118	199	229
New Braintree	†	<7	†	†	<7	†	†	†	<7	<7	†	<7	†
New Marlborough	†	†	†	†	†	†	†	†	†	†	†	<7	†
New Salem	†	†	†	<7	<7	†	†	†	†	†	†	<7	†
Newbury	<7	<7	†	†	<7	<7	†	†	†	<7	†	†	†
Newburyport	<7	<7	<7	<7	17	<7	9	<7	11	24	<7	<7	8
Newton	<7	20	*	9	42	11	13	15	16	55	17	16	15
Norfolk	<7	†	<7	<7	7	7	<7	<7	<7	18	<7	<7	<7
North Adams	<7	*	9	13	34	11	27	22	14	74	9	9	17
North Andover	16	18	10	8	52	12	11	19	15	57	18	12	18
North Attleboro	11	15	8	15	49	13	21	18	16	68	11	25	21
North Brookfield	†	†	<7	<7	<7	†	†	<7	<7	<7	†	†	†

Please note, counts in this table reflect the town in which the incident occurred (not the city/town of residence as shown in the table of deaths by city/town). † indicates no opioid overdose incidents were recorded, which may be due to non-reporting by EMS services or no incidents occurring.

City/Town	<u>2015</u>					<u>2016</u>					<u>2017</u>		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3
North Reading	<7	8	<7	<7	15	<7	<7	9	<7	21	<7	9	<7
Northampton	<7	8	20	<7	33	26	*	<7	22	71	26	20	16
Northborough	<7	†	<7	<7	<7	<7	<7	10	<7	23	<7	<7	<7
Northbridge	<7	7	<7	<7	22	<7	7	7	<7	22	<7	<7	9
Northfield	†	†	†	†	†	†	†	†	†	†	†	†	<7
Norton	<7	†	†	†	<7	†	*	<7	11	26	7	<7	8
Norwell	<7	*	10	†	22	<7	7	<7	<7	19	<7	7	<7
Norwood	<7	<7	<7	<7	8	<7	†	<7	11	18	13	13	15
Oak Bluffs	<7	<7	<7	<7	16	<7	<7	<7	<7	14	<7	†	†
Oakham	†	†	†	†	†	†	<7	<7	†	<7	<7	†	<7
Orange	†	†	<7	<7	<7	<7	<7	<7	<7	10	8	<7	<7
Orleans	†	†	†	†	†	†	†	†	†	†	<7	<7	<7
Otis	†	†	†	†	†	†	†	†	†	†	†	†	<7
Oxford	10	<7	12	*	34	<7	10	22	<7	40	11	8	<7
Palmer	<7	<7	<7	<7	15	†	<7	†	<7	<7	<7	<7	†
Paxton	<7	†	<7	†	<7	<7	<7	<7	<7	<7	<7	<7	<7
Peabody	38	26	30	26	120	34	44	42	43	163	34	37	51
Pelham	†	†	<7	†	<7	†	†	†	†	†	†	†	†
Pembroke	<7	12	12	<7	34	9	9	8	17	43	12	8	7
Pepperell	<7	<7	9	<7	23	<7	<7	9	<7	20	<7	†	7
Peru	†	†	†	†	†	†	†	†	†	†	†	†	†
Petersham	†	<7	†	†	<7	†	<7	†	<7	<7	†	†	†
Phillipston	†	<7	†	†	<7	†	†	<7	†	<7	†	†	†
Pittsfield	28	24	38	56	146	38	40	30	40	148	35	29	57
Plainfield	†	†	†	†	†	†	†	†	†	†	†	<7	<7
Plainville	<7	<7	<7	<7	21	<7	<7	<7	11	23	7	<7	<7
Plymouth	57	47	35	47	186	38	60	49	43	190	50	58	69
Plympton	<7	<7	<7	†	<7	†	<7	<7	<7	<7	<7	<7	†
Princeton	†	†	†	<7	<7	†	†	†	†	†	†	<7	<7
Provincetown	†	*	7	<7	15	<7	<7	<7	<7	11	<7	<7	<7
Quincy	93	94	44	89	320	57	123	131	122	433	89	101	164
Randolph	<7	<7	19	7	34	30	30	16	24	100	20	13	21
Raynham	7	<7	18	<7	37	<7	<7	7	13	32	<7	10	12
Reading	<7	<7	<7	<7	15	<7	<7	7	7	26	<7	<7	<7
Rehoboth	†	†	†	<7	<7	†	†	†	†	†	<7	<7	<7
Revere	45	61	77	59	242	52	81	92	76	301	52	69	82

Please note, counts in this table reflect the town in which the incident occurred (not the city/town of residence as shown in the table of deaths by city/town). † indicates no opioid overdose incidents were recorded, which may be due to non-reporting by EMS services or no incidents occurring.

City/Town	<u>2015</u>					<u>2016</u>					<u>2017</u>		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3
Richmond	†	†	†	†	†	†	†	†	†	†	†	†	†
Rochester	†	<7	†	†	<7	<7	<7	<7	<7	8	<7	†	<7
Rockland	12	9	21	13	55	42	28	24	22	116	17	19	23
Rockport	<7	†	<7	†	7	†	†	<7	<7	<7	<7	<7	†
Rowe	†	†	†	†	†	†	†	†	†	†	†	†	†
Rowley	†	<7	†	<7	<7	<7	<7	<7	<7	8	†	<7	†
Royalston	†	<7	<7	<7	<7	<7	<7	<7	†	<7	<7	†	†
Russell	†	<7	<7	†	<7	†	†	†	<7	<7	†	<7	†
Rutland	†	<7	<7	†	<7	†	<7	<7	<7	10	<7	<7	<7
Salem	34	59	39	35	167	47	62	78	60	247	54	56	78
Salisbury	16	16	10	12	54	25	33	33	17	108	19	25	33
Sandisfield	†	†	†	†	†	†	<7	†	†	<7	<7	†	†
Sandwich	†	†	<7	†	<7	†	†	*	<7	8	<7	†	†
Saugus	29	25	26	16	96	26	37	38	28	129	25	31	32
Savoy	†	†	†	†	†	†	†	†	†	†	†	†	†
Scituate	<7	<7	7	<7	20	<7	<7	9	<7	21	<7	<7	<7
Seekonk	<7	<7	<7	13	26	<7	7	10	<7	26	<7	10	8
Sharon	†	†	†	†	†	†	<7	8	<7	12	<7	<7	<7
Sheffield	†	†	<7	<7	<7	<7	†	<7	†	<7	†	<7	<7
Shelburne	†	<7	†	<7	<7	<7	†	†	<7	<7	<7	†	<7
Sherborn	†	†	†	†	†	†	†	†	<7	<7	†	†	†
Shirley	<7	<7	<7	<7	9	<7	<7	9	†	13	<7	<7	7
Shrewsbury	12	8	12	18	50	10	19	11	11	51	7	16	13
Shutesbury	<7	†	†	†	<7	†	†	†	†	†	†	†	†
Somerset	<7	8	10	<7	29	13	17	11	9	50	8	10	9
Somerville	17	42	38	45	142	39	52	56	50	197	27	39	43
South Hadley	<7	†	†	<7	<7	†	<7	†	<7	<7	†	†	<7
Southampton	†	<7	<7	<7	<7	†	<7	<7	<7	<7	<7	<7	†
Southborough	†	†	<7	<7	<7	<7	<7	<7	<7	<7	†	†	<7
Southbridge	13	13	10	15	51	11	26	22	37	96	8	14	20
Southwick	<7	<7	<7	<7	11	11	11	*	<7	34	8	<7	<7
Spencer	<7	†	<7	<7	9	<7	<7	<7	<7	12	<7	<7	7
Springfield	114	163	165	260	702	212	227	183	206	828	126	187	244
Sterling	<7	†	<7	<7	7	<7	<7	<7	<7	13	<7	<7	<7
Stockbridge	†	†	<7	†	<7	†	†	†	†	†	<7	†	†
Stoneham	15	13	11	14	53	<7	23	*	12	52	9	<7	18

Please note, counts in this table reflect the town in which the incident occurred (not the city/town of residence as shown in the table of deaths by city/town). † indicates no opioid overdose incidents were recorded, which may be due to non-reporting by EMS services or no incidents occurring.

City/Town	<u>2015</u>					<u>2016</u>					<u>2017</u>		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3
Stoughton	9	12	18	12	51	10	21	12	11	54	14	16	16
Stow	<7	†	<7	<7	<7	†	<7	<7	†	<7	<7	<7	<7
Sturbridge	†	<7	<7	<7	<7	<7	11	<7	<7	25	<7	<7	<7
Sudbury	<7	<7	<7	†	11	†	<7	†	<7	<7	<7	†	<7
Sunderland	<7	†	†	†	<7	<7	<7	<7	<7	<7	†	<7	†
Sutton	<7	<7	<7	<7	11	<7	<7	<7	<7	12	<7	<7	<7
Swampscott	<7	<7	<7	<7	10	<7	9	<7	<7	25	<7	<7	<7
Swansea	<7	†	<7	<7	9	8	13	13	15	49	10	<7	17
Taunton	78	77	84	76	315	75	117	73	59	324	39	75	90
Templeton	<7	10	<7	<7	21	<7	<7	<7	<7	13	<7	<7	<7
Tewksbury	<7	<7	9	13	33	12	24	21	24	81	37	41	29
Tisbury	<7	<7	†	<7	<7	†	<7	†	<7	<7	<7	<7	†
Tolland	†	†	†	†	†	†	†	†	†	†	†	†	†
Topsfield	<7	<7	<7	<7	9	†	†	<7	†	<7	<7	<7	†
Townsend	7	<7	<7	<7	16	<7	<7	<7	<7	15	<7	<7	†
Truro	<7	†	†	†	<7	†	<7	†	†	<7	†	†	†
Tyngsborough	†	<7	†	<7	<7	<7	<7	<7	7	19	<7	<7	<7
Tyringham	†	†	†	<7	<7	†	†	†	†	†	†	†	†
Upton	†	<7	<7	†	<7	<7	<7	<7	<7	<7	†	<7	<7
Uxbridge	<7	10	10	<7	31	9	<7	11	<7	29	<7	<7	7
Wakefield	13	<7	*	12	40	10	11	18	15	54	10	17	18
Wales	†	†	†	†	†	†	†	†	†	†	†	†	<7
Walpole	13	<7	<7	9	32	<7	10	*	12	37	9	8	8
Waltham	27	39	25	32	123	38	36	40	30	144	20	35	45
Ware	<7	<7	<7	<7	12	9	<7	<7	<7	23	<7	<7	11
Wareham	31	32	44	24	131	28	33	40	32	133	39	36	47
Warren	<7	†	<7	<7	<7	<7	<7	†	<7	9	<7	<7	<7
Warwick	†	†	†	†	†	†	†	†	†	†	†	<7	†
Washington	†	†	†	†	†	†	†	†	†	†	†	†	†
Watertown	22	22	15	8	67	28	23	7	22	80	<7	11	15
Wayland	†	†	<7	<7	<7	†	<7	<7	<7	<7	<7	<7	<7
Webster	20	<7	13	*	50	16	14	20	22	72	13	18	23
Wellesley	<7	<7	<7	<7	14	<7	<7	<7	<7	12	<7	<7	<7
Wellfleet	†	<7	<7	<7	<7	<7	<7	<7	<7	9	†	<7	<7
Wendell	†	†	†	†	†	†	†	†	†	†	†	†	†
Wenham	†	†	†	<7	<7	<7	<7	†	†	<7	<7	†	<7

Please note, counts in this table reflect the town in which the incident occurred (not the city/town of residence as shown in the table of deaths by city/town). † indicates no opioid overdose incidents were recorded, which may be due to non-reporting by EMS services or no incidents occurring.

City/Town	<u>2015</u>					<u>2016</u>					<u>2017</u>		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3
West Boylston	<7	<7	<7	<7	11	<7	<7	<7	<7	12	<7	<7	<7
West Bridgewater	<7	<7	7	<7	14	7	<7	<7	†	15	<7	<7	<7
West Brookfield	<7	<7	†	†	<7	†	†	†	†	†	<7	<7	<7
West Newbury	<7	†	†	†	<7	<7	<7	†	<7	<7	†	†	<7
West Springfield	†	†	†	†	†	†	†	†	†	†	†	†	†
West Stockbridge	<7	†	†	†	<7	†	†	†	†	†	<7	†	†
West Tisbury	<7	<7	<7	†	<7	<7	<7	†	†	<7	†	<7	<7
Westborough	10	<7	<7	9	29	<7	13	13	*	43	7	13	<7
Westfield	10	15	12	34	71	28	15	16	21	80	11	14	15
Westford	†	†	<7	<7	<7	8	<7	<7	<7	20	<7	9	<7
Westhampton	†	<7	<7	10	17	*	7	<7	7	27	<7	<7	10
Westminster	<7	<7	<7	†	7	<7	<7	†	<7	7	<7	<7	<7
Weston	<7	<7	<7	†	<7	<7	<7	†	<7	<7	9	<7	<7
Westport	<7	<7	<7	<7	9	<7	9	<7	10	28	7	8	<7
Westwood	<7	<7	†	†	<7	<7	<7	<7	<7	14	<7	<7	<7
Weymouth	59	52	53	22	186	35	61	81	37	214	50	57	68
Whately	†	<7	†	†	<7	†	†	†	†	†	<7	<7	†
Whitman	†	<7	9	<7	16	7	7	10	18	42	9	<7	19
Wilbraham	<7	<7	<7	<7	13	<7	7	<7	<7	17	<7	<7	<7
Williamsburg	†	†	†	†	†	†	<7	†	†	<7	<7	<7	<7
Williamstown	<7	<7	<7	<7	11	<7	<7	<7	<7	9	†	<7	<7
Wilmington	*	15	15	<7	44	12	*	9	<7	33	<7	9	8
Winchendon	<7	†	<7	<7	<7	<7	<7	<7	<7	17	†	<7	<7
Winchester	†	<7	<7	<7	<7	<7	<7	<7	7	18	<7	†	<7
Windsor	†	†	†	†	†	†	†	†	<7	<7	†	†	†
Winthrop	<7	7	<7	10	29	13	18	21	8	60	<7	8	9
Woburn	32	23	14	22	91	42	38	36	28	144	43	36	45
Worcester	299	287	451	362	1399	327	396	480	408	1611	262	361	445
Worthington	†	†	†	†	†	†	†	<7	†	<7	†	†	†
Wrentham	<7	†	<7	<7	<7	*	12	11	<7	35	<7	<7	<7
Yarmouth	35	20	11	21	87	15	31	20	26	92	16	29	35
Unknown	123	99	121	70	413	65	115	109	72	361	51	50	62
Grand Total	4201	4325	4788	4516	17830	4726	5940	6295	5348	22309	4501	5271	6463

*Complementary suppression of the next smallest count was applied if only one count was < 7

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, Office for State, Tribal, Local and Territorial Support, under B01OT009024 and NU17CE924877. 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.