



MA Opioid-Related EMS Incidents 2013-September 2018

Massachusetts Department of Public Health

POSTED: FEBRUARY 2019

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 nine 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	333	1182	809	545	290	10	3169
Female	<5	176	528	335	224	166	83	1512*
Total	<5	509	1710	1144	769	456	93	4681*

*Total of non-suppressed cells

All Suspected Opioid Related Incidents: 2018 (Quarter 2)								
	11-14	15-24	25-34	35-44	45-54	55-64	65+	Total
Male	<5	360	1428	951	625	375	13	3752*
Female	<5	180	711	425	219	186	83	1804*
Total	<5	540	2139	1376	844	561	96	5556*

*Total of non-suppressed cells

All Suspected Opioid Related Incidents: 2018 (Quarter 3)								
	11-14	15-24	25-34	35-44	45-54	55-64	65+	Total
Male	<5	320	1372	974	627	353	121	3767*
Female	<5	149	714	408	241	156	67	1735*
Total	<5	469	2086	1382	868	509	188	5502*

*Total of non-suppressed cells

Figure 1: Percent of Opioid-Related Overdoses Among All EMS Incidents, MA: 2013-Q3 2018

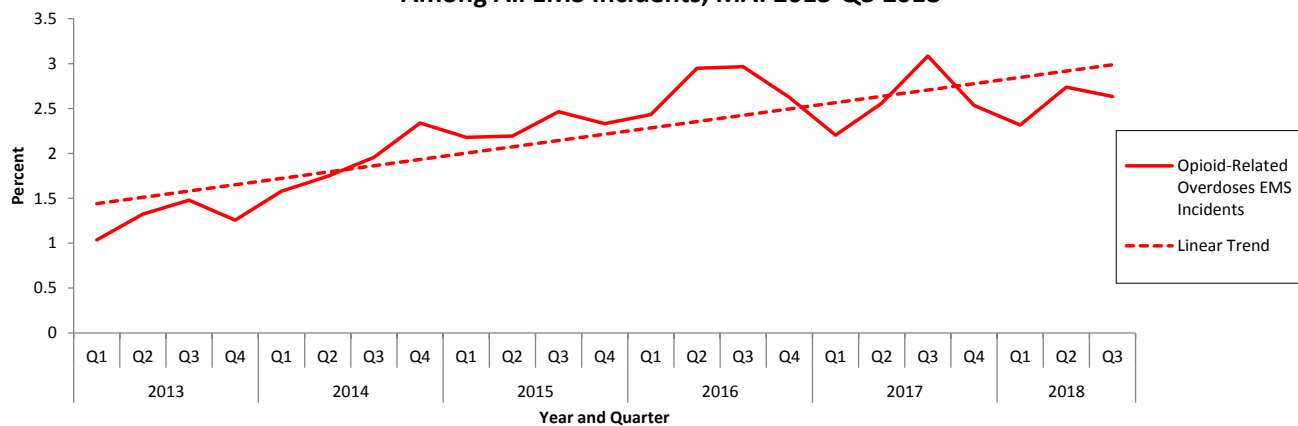
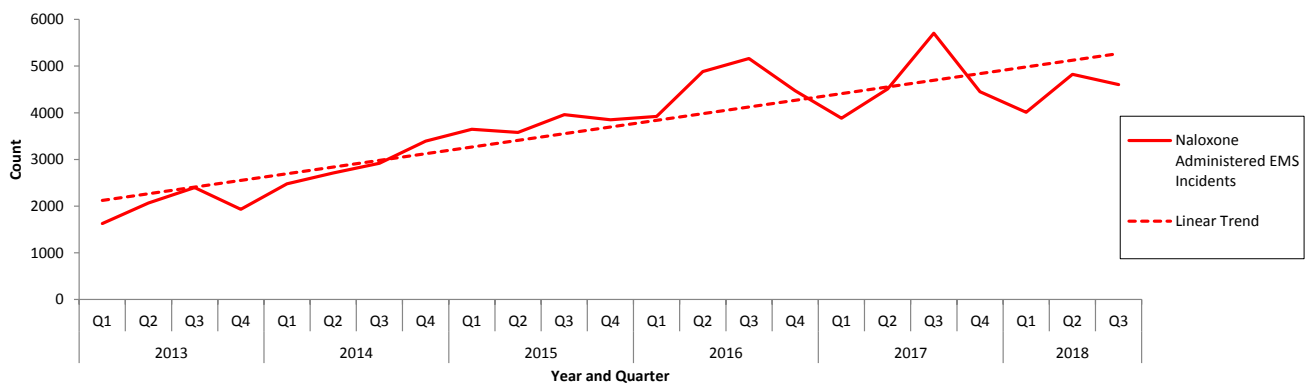


Figure 2: Count of All EMS Incidents Involving Naloxone Administration, MA: 2013-Q3 2018



The 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. * indicates complementary suppression of the next smallest count was applied if only one count was <5.

	<u>2016</u>					<u>2017</u>					<u>2018</u>			
City/Town	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Total
Abington	12	9	12	9	42	14	9	10	12	45	*	9	<5	20
Acton	*	6	<5	6	21	*	7	<5	6	19	*	†	<5	10
Acushnet	†	<5	*	5	12	7	7	6	5	25	6	<5	<5	12
Adams	†	†	†	†	†	5	<5	<5	10	19	11	<5	*	22
Agawam	18	8	16	12	54	9	10	13	11	43	24	24	19	67
Alford	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Amesbury	16	24	13	16	69	11	15	14	12	52	11	7	13	31
Amherst	8	<5	<5	5	20	8	6	8	7	29	<5	*	7	16
Andover	<5	*	11	12	32	7	11	12	14	44	9	6	11	26
Aquinnah	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Arlington	18	16	16	8	58	11	14	19	23	67	<5	*	14	28
Ashburnham	<5	<5	<5	†	9	<5	<5	†	†	<5	<5	†	<5	<5
Ashby	<5	†	<5	<5	8	†	<5	<5	5	12	<5	<5	<5	7
Ashfield	†	†	†	<5	<5	†	†	†	†	†	†	†	†	†
Ashland	<5	*	7	8	25	*	9	7	<5	25	<5	<5	5	12
Athol	5	8	9	16	38	7	15	12	8	42	19	33	18	70
Attleboro	21	39	38	40	138	36	31	46	31	144	43	30	43	116
Auburn	*	<5	11	7	27	6	11	7	6	30	8	15	7	30
Avon	<5	6	*	7	20	<5	<5	<5	†	7	†	*	<5	8
Ayer	6	<5	<5	7	18	<5	<5	<5	†	7	*	8	<5	14
Barnstable	44	54	62	59	219	63	48	90	44	245	26	14	16	56
Barre	†	<5	<5	<5	8	6	<5	<5	<5	13	*	<5	8	16
Becket	†	<5	†	†	<5	<5	<5	†	<5	6	†	†	<5	<5
Bedford	6	8	9	5	28	*	8	8	<5	23	6	8	5	19
Belchertown	<5	†	†	<5	<5	<5	7	*	6	21	6	7	6	19
Bellingham	7	11	11	13	42	11	14	6	9	40	*	†	<5	11
Belmont	10	11	7	5	33	<5	*	12	7	27	8	*	<5	17
Berkley	<5	<5	<5	<5	11	<5	<5	<5	<5	9	<5	<5	<5	6
Berlin	<5	<5	†	<5	7	<5	†	<5	†	<5	<5	†	<5	<5
Bernardston	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Beverly	24	31	24	31	110	25	35	23	23	106	23	19	32	74
Billerica	19	12	30	13	74	20	15	42	20	97	32	17	16	65
Blackstone	<5	<5	<5	<5	7	<5	9	12	*	30	*	10	<5	20
Blandford	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Bolton	<5	<5	<5	<5	7	<5	†	<5	†	<5	<5	†	<5	<5
Boston	423	674	706	434	2237	425	635	892	687	2639	601	683	750	2034

The 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. * indicates complementary suppression of the next smallest count was applied if only one count was <5.

	<u>2016</u>					<u>2017</u>					<u>2018</u>			
City/Town	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Total
Bourne	18	28	32	12	90	15	30	17	22	84	5	16	20	41
Boxborough	<5	<5	5	7	18	†	<5	<5	<5	7	†	†	†	†
Boxford	†	<5	<5	<5	7	<5	<5	†	†	<5	<5	<5	<5	<5
Boylston	†	<5	6	<5	9	†	†	<5	†	<5	†	<5	†	<5
Braintree	23	33	28	43	127	25	35	39	16	115	6	<5	<5	13
Brewster	<5	<5	†	<5	6	†	7	<5	<5	12	<5	<5	5	9
Bridgewater	<5	6	†	<5	9	<5	<5	<5	<5	8	†	<5	*	11
Brimfield	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Brockton	191	261	256	180	888	186	164	253	89	692	17	49	37	103
Brookfield	†	<5	†	<5	<5	<5	<5	<5	<5	7	†	<5	<5	<5
Brookline	9	7	6	11	33	12	18	10	13	53	9	10	12	31
Buckland	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Burlington	*	<5	14	11	33	9	13	21	15	58	9	10	14	33
Cambridge	93	162	128	94	477	81	92	107	73	353	72	99	84	255
Canton	<5	13	*	10	34	7	7	9	14	37	7	9	8	24
Carlisle	†	†	†	†	†	†	†	5	†	5	†	<5	†	<5
Carver	13	12	15	13	53	11	12	11	9	43	<5	<5	11	18
Charlemont	†	†	†	†	†	†	†	†	†	†	<5	†	†	<5
Charlton	<5	†	†	<5	<5	<5	<5	<5	<5	11	<5	*	†	7
Chatham	<5	<5	<5	<5	7	5	<5	<5	<5	11	<5	<5	<5	7
Chelmsford	19	17	11	10	57	19	12	13	12	56	19	15	15	49
Chelsea	59	73	84	42	258	49	83	91	43	266	69	70	72	211
Cheshire	<5	†	<5	<5	<5	<5	<5	†	†	<5	<5	†	<5	5
Chester	<5	<5	†	†	<5	<5	†	<5	†	<5	<5	†	†	<5
Chesterfield	†	†	†	†	†	†	†	<5	†	<5	†	<5	†	<5
Chicopee	78	61	49	54	242	46	59	66	76	247	81	111	62	254
Chilmark	<5	†	<5	†	<5	†	†	†	<5	<5	<5	†	<5	<5
Clarksburg	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Clinton	<5	13	*	28	55	6	12	14	17	49	9	19	10	38
Cohasset	†	†	<5	<5	5	†	<5	<5	<5	9	†	†	<5	<5
Colrain	†	†	†	†	†	†	†	†	†	†	<5	†	<5	<5
Concord	<5	7	<5	<5	18	<5	<5	<5	<5	9	<5	5	<5	11
Conway	<5	†	†	†	<5	†	†	†	†	†	†	†	†	†
Cummington	†	†	†	†	†	†	†	<5	†	<5	†	†	†	†
Dalton	6	<5	<5	<5	12	<5	†	<5	†	6	†	<5	<5	7
Danvers	30	45	39	22	136	30	41	36	35	142	44	41	26	111
Dartmouth	18	25	25	23	91	18	27	21	29	95	34	24	31	89

The 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. * indicates complementary suppression of the next smallest count was applied if only one count was <5.

	<u>2016</u>					<u>2017</u>					<u>2018</u>			
City/Town	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Total
Dedham	13	26	13	5	57	16	15	21	15	67	*	21	<5	38
Deerfield	<5	<5	†	†	<5	†	<5	†	<5	7	†	<5	<5	<5
Dennis	<5	<5	9	7	18	11	11	20	16	58	7	14	10	31
Dighton	<5	*	†	†	7	<5	<5	†	†	<5	†	<5	†	<5
Douglas	<5	<5	†	†	6	†	†	†	<5	<5	<5	<5	<5	9
Dover	†	†	†	†	†	†	†	<5	†	<5	<5	<5	<5	5
Dracut	16	10	22	14	62	11	17	26	13	67	28	25	18	71
Dudley	†	<5	9	*	19	<5	7	*	7	23	5	18	12	35
Dunstable	†	†	<5	†	<5	<5	†	<5	<5	<5	<5	†	†	<5
Duxbury	<5	6	<5	<5	18	<5	<5	<5	<5	10	<5	<5	<5	6
East Bridgewater	6	15	9	7	37	*	6	<5	9	24	6	5	15	26
East Brookfield	†	†	†	<5	<5	†	†	†	†	†	†	<5	<5	<5
East Longmeadow	<5	8	*	9	23	7	*	<5	6	20	*	<5	8	18
Eastham	<5	<5	<5	<5	9	<5	<5	<5	†	8	<5	<5	<5	5
Easthampton	7	7	7	7	28	<5	5	10	<5	23	7	12	7	26
Easton	<5	<5	5	†	9	<5	<5	6	13	22	11	12	9	32
Edgartown	<5	<5	<5	<5	7	<5	<5	<5	†	5	†	†	<5	<5
Egremont	†	†	<5	†	<5	†	†	†	†	†	†	†	†	†
Erving	†	†	†	<5	<5	<5	†	†	<5	<5	†	<5	†	<5
Essex	<5	<5	†	<5	5	<5	<5	<5	<5	5	<5	†	<5	<5
Everett	36	57	49	41	183	39	43	49	39	170	37	40	27	104
Fairhaven	26	24	19	15	84	11	13	11	12	47	12	19	12	43
Fall River	151	156	299	228	834	195	169	247	248	859	165	258	370	793
Falmouth	23	55	46	45	169	40	48	29	34	151	36	35	30	101
Fitchburg	70	80	113	90	353	75	80	105	81	341	66	78	82	226
Florida	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Foxborough	<5	<5	12	17	35	11	7	9	7	34	<5	*	10	20
Framingham	32	60	66	55	213	44	34	48	54	180	39	58	49	146
Franklin	5	17	16	6	44	16	15	*	<5	46	10	9	5	24
Freetown	*	<5	7	8	24	<5	<5	<5	<5	11	<5	8	<5	14
Gardner	14	28	24	12	78	22	13	20	13	68	11	23	29	63
Georgetown	<5	<5	<5	<5	11	<5	<5	†	<5	7	*	<5	†	9
Gill	<5	<5	†	<5	<5	†	†	†	†	†	†	<5	<5	6
Gloucester	39	33	29	15	116	17	27	32	30	106	27	29	32	88
Goshen	†	†	<5	†	<5	†	†	†	†	†	†	†	†	†

The 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. * indicates complementary suppression of the next smallest count was applied if only one count was <5.

	<u>2016</u>					<u>2017</u>					<u>2018</u>			
City/Town	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Total
Gosnold	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Grafton	<5	<5	<5	5	15	*	7	10	<5	25	<5	6	<5	10
Granby	<5	5	<5	<5	9	<5	†	<5	8	13	*	6	<5	14
Granville	<5	†	†	†	<5	†	†	†	†	†	†	†	†	†
Great Barrington	<5	<5	<5	7	15	6	<5	<5	6	19	<5	<5	5	10
Greenfield	10	8	23	9	50	11	15	20	7	53	13	10	22	45
Groton	<5	†	†	<5	6	†	<5	†	†	<5	<5	<5	†	5
Groveland	<5	<5	<5	<5	6	<5	<5	†	<5	7	†	<5	<5	<5
Hadley	7	<5	*	5	19	<5	<5	7	<5	15	<5	<5	<5	9
Halifax	10	22	<5	*	45	*	<5	7	11	25	8	<5	<5	15
Hamilton	<5	<5	†	†	<5	<5	<5	<5	<5	6	†	<5	†	<5
Hampden	†	<5	†	<5	<5	<5	<5	<5	†	6	5	<5	<5	10
Hancock	†	†	†	†	†	†	<5	†	†	<5	†	†	†	†
Hanover	6	*	<5	6	18	<5	5	5	<5	17	<5	5	<5	8
Hanson	8	6	9	5	28	<5	9	<5	<5	21	10	<5	*	16
Hardwick	<5	†	†	<5	<5	<5	†	†	†	<5	<5	<5	<5	<5
Harvard	<5	†	†	<5	<5	<5	†	†	<5	<5	†	†	†	†
Harwich	<5	7	6	*	19	11	6	11	8	36	*	8	<5	18
Hatfield	<5	†	†	<5	<5	†	<5	<5	†	6	<5	†	†	<5
Haverhill	92	90	77	105	364	87	85	121	76	369	75	82	74	231
Hawley	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Heath	†	†	†	†	†	<5	†	†	<5	<5	†	†	†	†
Hingham	<5	<5	<5	14	25	<5	<5	5	<5	14	<5	<5	<5	7
Hinsdale	†	<5	†	†	<5	†	†	†	†	†	†	<5	†	<5
Holbrook	16	17	21	18	72	17	18	17	9	61	8	12	11	31
Holden	<5	<5	5	<5	13	<5	<5	5	<5	11	<5	<5	<5	6
Holland	†	†	†	†	†	†	†	<5	†	<5	<5	<5	†	<5
Holliston	†	†	†	†	†	<5	<5	<5	5	14	<5	<5	†	<5
Holyoke	79	86	62	74	301	55	49	65	57	226	81	159	78	318
Hopedale	†	†	†	<5	<5	<5	<5	<5	<5	7	<5	<5	†	7
Hopkinton	<5	<5	<5	†	10	<5	6	<5	<5	13	*	<5	5	11
Hubbardston	†	<5	<5	†	6	<5	<5	<5	†	7	<5	†	<5	<5
Hudson	11	*	13	<5	36	5	6	7	9	27	6	9	8	23
Hull	11	*	<5	†	18	<5	<5	<5	†	8	<5	<5	6	8
Huntington	†	†	<5	†	<5	†	†	<5	†	<5	<5	†	†	<5
Ipswich	7	<5	6	*	22	8	7	<5	*	22	<5	<5	7	12

The 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. * indicates complementary suppression of the next smallest count was applied if only one count was <5.

	<u>2016</u>					<u>2017</u>					<u>2018</u>			
City/Town	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Total
Kingston	6	<5	<5	9	22	6	*	9	<5	24	12	*	<5	23
Lakeville	<5	*	31	14	56	21	15	22	17	75	5	5	10	20
Lancaster	<5	<5	<5	<5	8	†	<5	<5	<5	6	<5	†	<5	5
Lanesborough	†	†	†	6	6	†	<5	<5	†	<5	†	<5	<5	6
Lawrence	197	100	170	179	646	151	178	242	207	778	180	169	183	532
Lee	<5	<5	<5	<5	7	<5	<5	<5	<5	10	<5	5	<5	10
Leicester	*	<5	6	10	25	9	6	6	8	29	6	*	<5	15
Lenox	†	<5	<5	<5	6	<5	5	<5	<5	16	†	<5	<5	5
Leominster	50	67	113	63	293	68	56	70	56	250	46	62	55	163
Leverett	†	†	†	†	†	<5	†	†	†	<5	†	†	†	†
Lexington	<5	<5	8	<5	16	5	<5	5	<5	16	<5	<5	<5	6
Leyden	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Lincoln	<5	†	<5	†	<5	†	<5	<5	<5	8	†	†	†	†
Littleton	<5	6	<5	<5	15	<5	<5	<5	<5	9	†	†	<5	<5
Longmeadow	6	<5	<5	<5	13	<5	<5	<5	<5	10	<5	<5	<5	8
Lowell	193	187	216	241	837	269	309	322	238	1138	320	290	337	947
Ludlow	11	14	6	13	44	10	6	13	10	39	9	18	6	33
Lunenburg	<5	7	9	<5	23	<5	†	<5	<5	6	<5	*	8	18
Lynn	97	113	137	123	470	117	147	172	150	586	117	162	202	481
Lynnfield	<5	<5	<5	<5	9	5	<5	<5	<5	11	<5	<5	<5	9
Malden	37	61	62	42	202	31	55	76	42	204	52	50	55	157
Manchester	†	<5	<5	†	5	<5	<5	†	<5	6	†	†	†	†
Mansfield	<5	9	10	*	28	7	10	6	17	40	8	12	7	27
Marblehead	5	8	15	8	36	9	<5	*	10	28	<5	*	9	17
Marion	<5	<5	<5	<5	6	<5	<5	<5	<5	9	<5	†	<5	<5
Marlborough	21	13	19	13	66	5	10	19	17	51	20	12	19	51
Marshfield	8	16	12	7	43	8	7	12	16	43	8	<5	<5	13
Mashpee	<5	12	17	*	42	16	*	<5	10	35	8	12	9	29
Mattapoisett	<5	7	<5	<5	13	<5	<5	6	5	15	*	<5	10	19
Maynard	<5	<5	5	<5	12	9	9	<5	<5	23	<5	<5	<5	6
Medfield	<5	<5	<5	<5	8	5	<5	<5	<5	10	†	<5	<5	<5
Medford	41	42	34	21	138	14	24	27	27	92	18	19	34	71
Medway	<5	<5	5	8	19	*	8	17	<5	35	8	<5	*	18
Melrose	16	17	17	9	59	*	<5	15	7	33	*	9	<5	22
Mendon	†	†	†	<5	<5	<5	<5	†	<5	7	<5	†	<5	<5
Merrimac	<5	†	<5	<5	5	<5	<5	7	<5	15	*	†	<5	8
Methuen	47	53	62	51	213	28	49	60	55	192	34	24	11	69

The 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. * indicates complementary suppression of the next smallest count was applied if only one count was <5.

	<u>2016</u>					<u>2017</u>					<u>2018</u>			
City/Town	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Total
Middleborough	10	20	5	†	35	<5	<5	<5	<5	9	<5	<5	†	<5
Middlefield	†	†	<5	†	<5	†	<5	†	†	<5	†	†	†	†
Middleton	<5	*	5	†	12	<5	<5	6	7	19	13	<5	*	23
Milford	6	14	23	13	56	13	24	12	16	65	19	12	9	40
Millbury	7	19	17	8	51	8	12	10	14	44	8	13	11	32
Millis	<5	5	<5	8	18	6	<5	5	<5	15	*	†	<5	11
Millville	<5	<5	†	<5	7	†	†	<5	<5	5	<5	<5	†	<5
Milton	7	12	9	8	36	9	9	9	5	32	8	<5	*	18
Monroe	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Monson	<5	<5	5	<5	12	<5	<5	6	<5	14	<5	<5	<5	9
Montague	*	10	8	<5	29	6	*	8	<5	23	<5	10	*	18
Monterey	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Montgomery	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Mount Washington	†	†	†	†	†	†	†	†	†	†	†	†	<5	<5
Nahant	<5	<5	†	<5	6	†	<5	<5	†	6	<5	<5	†	<5
Nantucket	6	<5	9	<5	18	<5	<5	<5	<5	10	<5	<5	5	9
Natick	6	9	8	10	33	7	6	8	9	30	8	5	†	13
Needham	<5	<5	<5	6	15	<5	†	<5	<5	7	<5	<5	<5	8
New Ashford	†	†	†	†	†	†	†	†	†	†	†	†	†	†
New Bedford	116	153	221	216	706	118	199	234	129	680	141	249	189	579
New Braintree	†	†	†	<5	<5	†	<5	†	†	<5	†	†	<5	<5
New Marlborough	†	†	†	†	†	†	<5	†	†	<5	†	†	<5	<5
New Salem	†	†	†	†	†	†	<5	†	†	<5	†	†	†	†
Newbury	<5	†	†	†	<5	<5	<5	†	<5	6	†	<5	<5	<5
Newburyport	<5	9	<5	11	24	<5	<5	8	<5	16	<5	5	<5	13
Newton	11	13	15	16	55	17	16	15	17	65	18	13	12	43
Norfolk	7	<5	<5	<5	18	<5	<5	<5	<5	6	<5	<5	<5	5
North Adams	11	27	22	14	74	9	9	17	13	48	12	13	26	51
North Andover	12	11	19	15	57	19	12	16	24	71	13	7	12	32
North Attleboro	13	21	18	16	68	10	25	21	22	78	21	18	14	53
North Brookfield	†	†	<5	<5	5	†	†	†	<5	<5	<5	†	†	<5
North Reading	5	<5	9	<5	21	<5	9	<5	<5	17	<5	7	<5	14
Northampton	26	*	<5	22	71	25	20	16	20	81	15	30	20	65
Northborough	7	<5	10	<5	24	<5	<5	6	<5	12	<5	6	<5	11

The 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. * indicates complementary suppression of the next smallest count was applied if only one count was <5.

	<u>2016</u>					<u>2017</u>					<u>2018</u>			
City/Town	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Total
Northbridge	*	7	7	<5	22	<5	*	9	6	25	†	†	<5	<5
Northfield	†	†	†	†	†	†	†	<5	<5	<5	<5	<5	†	<5
Norton	†	9	6	11	26	9	<5	9	*	28	5	8	5	18
Norwell	5	7	<5	<5	19	<5	7	<5	5	19	<5	5	<5	11
Norwood	<5	†	<5	11	18	13	13	15	12	53	8	12	15	35
Oak Bluffs	5	<5	5	<5	14	<5	†	<5	<5	5	<5	†	†	<5
Oakham	†	<5	<5	†	<5	<5	†	<5	†	<5	<5	†	†	<5
Orange	<5	<5	<5	6	10	8	<5	<5	<5	18	<5	11	*	23
Orleans	†	†	†	†	†	5	<5	<5	†	9	<5	<5	<5	9
Otis	†	†	†	†	†	†	†	<5	†	<5	†	†	†	†
Oxford	*	10	22	<5	40	11	*	<5	11	34	<5	14	*	29
Palmer	†	<5	†	<5	<5	<5	8	*	9	28	8	15	13	36
Paxton	<5	<5	<5	<5	6	<5	<5	<5	†	5	<5	<5	<5	7
Peabody	34	44	42	43	163	34	37	51	41	163	44	56	38	138
Pelham	†	†	†	†	†	†	†	†	†	†	†	†	<5	<5
Pembroke	9	9	8	17	43	12	8	8	5	33	*	7	<5	15
Pepperell	<5	<5	9	<5	20	<5	†	7	<5	14	7	<5	<5	11
Peru	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Petersham	†	<5	†	<5	<5	†	†	†	†	†	†	†	†	†
Phillipston	†	†	<5	†	<5	†	†	†	†	†	†	†	†	†
Pittsfield	38	40	30	40	148	35	29	57	38	159	33	61	52	146
Plainfield	†	†	†	†	†	†	<5	<5	†	<5	<5	†	<5	5
Plainville	<5	5	<5	11	23	7	*	<5	6	23	<5	<5	5	12
Plymouth	38	60	49	43	190	50	58	69	42	219	<5	*	†	11
Plympton	†	<5	<5	<5	6	<5	<5	†	†	<5	†	<5	<5	<5
Princeton	†	†	†	†	†	†	<5	<5	<5	5	<5	<5	†	<5
Provincetown	<5	<5	<5	<5	11	<5	<5	<5	†	9	†	<5	*	18
Quincy	57	123	131	122	433	89	101	164	41	395	20	40	33	93
Randolph	30	30	16	24	100	20	13	21	24	78	10	9	14	33
Raynham	6	6	7	13	32	6	10	12	9	37	13	12	10	35
Reading	6	6	7	7	26	<5	5	<5	<5	13	<5	<5	<5	5
Rehoboth	†	†	†	†	†	<5	<5	<5	<5	8	†	†	<5	<5
Revere	52	81	92	76	301	52	69	82	54	257	63	69	70	202
Richmond	†	†	†	†	†	†	†	†	†	†	†	<5	<5	<5
Rochester	<5	<5	<5	<5	8	<5	†	<5	<5	7	<5	<5	†	<5
Rockland	42	28	24	22	116	17	19	23	20	79	17	16	13	46
Rockport	†	†	<5	<5	6	<5	*	†	6	13	†	†	<5	<5

The 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. * indicates complementary suppression of the next smallest count was applied if only one count was <5.

	<u>2016</u>					<u>2017</u>					<u>2018</u>			
City/Town	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Total
Rowe	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Rowley	<5	<5	<5	<5	8	†	<5	†	†	<5	†	<5	<5	<5
Royalston	<5	<5	<5	†	<5	<5	†	†	<5	<5	<5	<5	†	<5
Russell	†	†	†	<5	<5	†	<5	†	†	<5	<5	<5	†	<5
Rutland	†	<5	<5	5	10	5	<5	<5	<5	13	<5	<5	†	<5
Salem	47	62	78	60	247	54	56	78	44	232	39	51	52	142
Salisbury	25	33	33	17	108	19	25	34	29	107	17	22	22	61
Sandisfield	†	<5	†	†	<5	<5	†	†	†	<5	†	†	†	†
Sandwich	†	†	8	7	15	14	9	5	11	39	10	12	9	31
Saugus	26	37	38	28	129	25	31	32	28	116	30	27	21	78
Savoy	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Scituate	<5	5	9	<5	21	<5	<5	6	<5	13	<5	<5	5	10
Seekonk	<5	7	10	*	26	<5	10	8	*	29	<5	<5	5	10
Sharon	†	<5	8	<5	12	<5	<5	<5	7	16	5	<5	<5	12
Sheffield	<5	†	<5	†	<5	†	7	<5	<5	12	†	†	<5	<5
Shelburne	<5	†	†	<5	<5	<5	†	<5	†	<5	†	<5	<5	<5
Sherborn	†	†	†	<5	<5	†	†	†	<5	<5	<5	†	<5	<5
Shirley	<5	<5	9	†	13	*	<5	7	5	21	6	8	6	20
Shrewsbury	10	19	11	11	51	7	16	13	18	54	24	25	14	63
Shutesbury	†	†	†	†	†	†	†	†	†	†	<5	†	<5	<5
Somerset	13	17	11	9	50	8	10	14	15	47	12	14	5	31
Somerville	39	52	56	50	197	27	39	43	24	133	30	31	35	96
South Hadley	†	<5	†	<5	<5	†	†	<5	<5	<5	<5	*	11	25
Southampton	†	<5	<5	<5	6	<5	<5	†	<5	<5	†	<5	<5	7
Southborough	<5	<5	<5	<5	6	†	†	<5	<5	5	<5	<5	6	8
Southbridge	11	26	22	37	96	8	14	20	7	49	8	20	24	52
Southwick	11	11	7	5	34	8	<5	<5	8	23	5	10	5	20
Spencer	<5	<5	<5	<5	12	<5	*	7	10	24	<5	12	*	22
Springfield	182	198	164	177	721	115	186	212	161	674	184	278	262	724
Sterling	<5	6	5	<5	13	<5	<5	<5	<5	8	5	5	9	19
Stockbridge	†	†	†	†	†	<5	†	†	<5	<5	†	<5	†	<5
Stoneham	6	23	11	12	52	9	6	18	6	39	12	10	7	29
Stoughton	10	21	12	11	54	14	16	16	13	59	25	15	22	62
Stow	†	<5	<5	†	5	<5	6	<5	<5	13	<5	†	<5	5
Sturbridge	6	11	*	<5	25	<5	<5	<5	8	17	<5	8	*	16
Sudbury	†	<5	†	<5	5	<5	†	<5	<5	5	<5	<5	<5	6
Sunderland	<5	<5	<5	<5	6	†	<5	†	†	<5	<5	†	<5	<5

The 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. * indicates complementary suppression of the next smallest count was applied if only one count was <5.

	<u>2016</u>					<u>2017</u>					<u>2018</u>			
City/Town	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Total
Sutton	<5	<5	<5	<5	12	<5	<5	<5	<5	12	6	<5	<5	10
Swampscott	5	9	5	6	25	<5	<5	5	<5	15	<5	<5	<5	9
Swansea	8	13	13	15	49	10	<5	17	<5	34	*	13	<5	25
Taunton	75	117	73	59	324	39	75	90	41	245	*	6	<5	12
Templeton	5	<5	5	<5	13	5	<5	6	<5	15	<5	<5	<5	11
Tewksbury	12	24	21	24	81	37	41	29	20	127	47	26	29	102
Tisbury	†	<5	†	<5	<5	<5	<5	<5	†	7	†	†	<5	<5
Tolland	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Topsfield	†	†	5	†	5	<5	6	†	<5	8	<5	†	†	<5
Townsend	6	<5	<5	<5	15	<5	<5	†	<5	10	*	9	<5	16
Truro	†	<5	†	†	<5	†	†	†	<5	<5	<5	<5	<5	<5
Tyngsborough	<5	<5	6	7	19	<5	*	6	6	19	*	10	<5	24
Tyringham	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Upton	<5	<5	<5	<5	6	†	5	<5	<5	10	<5	†	<5	<5
Uxbridge	9	*	11	<5	29	*	<5	7	6	22	<5	11	<5	19
Wakefield	10	11	18	15	54	10	17	18	13	58	9	18	11	38
Wales	†	†	†	†	†	†	†	<5	<5	<5	<5	<5	<5	5
Walpole	6	10	9	12	37	9	*	8	<5	29	10	17	11	38
Waltham	38	36	40	30	144	20	35	45	25	125	34	30	23	87
Ware	9	*	5	<5	23	<5	6	11	<5	22	8	10	9	27
Wareham	28	33	40	32	133	39	36	47	50	172	34	41	49	124
Warren	5	<5	†	<5	9	6	<5	<5	†	13	<5	6	<5	10
Warwick	†	†	†	†	†	†	<5	†	†	<5	†	†	<5	<5
Washington	†	†	†	†	†	†	†	†	<5	<5	†	†	†	†
Watertown	28	23	7	22	80	5	11	15	13	44	15	18	20	53
Wayland	†	<5	<5	<5	<5	<5	<5	<5	†	5	<5	†	†	<5
Webster	16	14	20	22	72	13	18	23	17	71	14	28	30	72
Wellesley	<5	<5	<5	6	12	<5	<5	<5	6	14	<5	<5	7	12
Wellfleet	<5	<5	<5	<5	9	†	5	<5	<5	10	†	<5	<5	<5
Wendell	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Wenham	<5	<5	†	†	<5	<5	†	<5	<5	<5	†	<5	†	<5
West Boylston	<5	<5	<5	5	12	6	<5	<5	6	16	5	5	7	17
West Bridgewater	7	<5	<5	†	15	<5	5	<5	10	21	<5	7	<5	12
West Brookfield	†	†	†	†	†	<5	<5	<5	5	10	<5	<5	<5	8
West Newbury	<5	<5	†	<5	5	†	†	<5	†	<5	<5	<5	†	<5

The 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. * indicates complementary suppression of the next smallest count was applied if only one count was <5.

	<u>2016</u>					<u>2017</u>					<u>2018</u>			
City/Town	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Total
West Springfield	30	29	19	29	107	11	15	40	23	89	23	35	23	81
West Stockbridge	†	†	†	†	†	<5	†	†	†	<5	†	<5	†	<5
West Tisbury	<5	<5	†	†	<5	†	<5	<5	†	<5	†	†	†	†
Westborough	14	26	25	22	87	14	26	15	11	66	12	13	8	33
Westfield	28	15	16	21	80	11	14	15	21	61	27	27	20	74
Westford	8	<5	<5	5	20	5	9	5	6	25	*	10	<5	20
Westhampton	†	†	†	†	†	<5	†	†	†	<5	<5	†	†	<5
Westminster	<5	<5	†	<5	7	<5	5	<5	8	19	*	<5	5	13
Weston	<5	<5	†	<5	5	9	<5	<5	†	11	<5	<5	†	<5
Westport	*	9	<5	10	28	7	8	6	5	26	9	9	7	25
Westwood	<5	<5	<5	<5	14	<5	6	<5	5	13	†	<5	<5	<5
Weymouth	35	61	81	37	214	50	57	70	62	239	50	50	32	132
Whately	†	†	†	†	†	<5	<5	†	<5	<5	†	†	<5	<5
Whitman	7	7	10	18	42	9	6	19	9	43	13	5	9	27
Wilbraham	<5	7	<5	6	17	<5	6	*	5	20	6	6	8	20
Williamsburg	†	<5	†	†	<5	<5	<5	<5	†	<5	<5	†	†	<5
Williamstown	<5	<5	<5	<5	9	†	<5	<5	†	<5	<5	<5	†	<5
Wilmington	17	10	*	<5	40	6	11	16	20	53	19	12	7	38
Winchendon	<5	<5	6	6	17	†	5	5	6	16	7	8	6	21
Winchester	6	<5	<5	7	18	<5	†	<5	<5	7	<5	<5	<5	7
Windsor	†	†	†	<5	<5	†	†	†	†	†	†	†	†	†
Winthrop	13	18	21	8	60	<5	*	9	9	30	9	8	8	25
Woburn	42	38	36	28	144	43	36	45	28	152	31	37	26	94
Worcester	327	396	480	408	1611	262	361	448	432	1503	342	451	461	1254
Worthington	†	†	<5	†	<5	†	†	†	†	†	†	†	†	†
Wrentham	*	12	11	<5	35	6	6	7	6	25	<5	<5	<5	8
Yarmouth	15	31	20	26	92	16	29	35	17	97	10	19	15	44
Unknown	66	116	109	71	362	51	49	62	49	211	35	32	7	74
Grand Total	4744	5956	6329	5393	22422	4632	5534	6823	5302	22291	4825	5735	5562	16122

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