

Opioid overdose deaths in Massachusetts communities, 2012-2015

Data source: Massachusetts Department of Public Health, as reported in the Boston Globe year-by-year on May 3, 2016

<http://www.bostonglobe.com/2016/05/03/table-opioid-overdose-deaths-mass-town/ALff0LlaODMvrNeficB2sN/story.html>

Tony Gojanovic, Zero defect sampling, 2007, <http://asq.org/quality-progress/2007/11/basic-quality/zero-defect-sampling.html>

Massachusetts city or town	Population census 2010	Opioid deaths 2012-2015	Opioid deaths / year per 1,000,000	95% confidence interval	Difference from average (95% intervals)	Statistically significant (95%)
Statewide	6,547,629	4238	162	5.0	N/A	N/A
Brookline	58,732	4	17	17.0	-8.5	Yes
Needham	28,886	1	9	26.0	-5.9	Yes
Wellesley	27,982	1	9	26.8	-5.7	Yes
Newton	85,146	18	53	24.9	-4.4	Yes
Amherst	37,819	5	33	29.6	-4.4	Yes
Westford	21,951	2	23	32.2	-4.3	Yes
Concord	17,668	0	0	42.4	-3.8	Yes
Cambridge	105,162	28	67	25.2	-3.8	Yes
Sudbury	17,659	1	14	42.5	-3.5	Yes
Lexington	31,394	5	40	35.6	-3.4	Yes
Hingham	22,157	3	34	39.1	-3.3	Yes
Northborough	14,155	1	18	53.0	-2.7	Yes
Seekonk	13,722	1	18	54.7	-2.6	Yes
Medfield	12,024	0	0	62.4	-2.6	Yes
Medway	12,752	1	20	58.8	-2.4	Yes
Milton	27,003	6	56	45.4	-2.3	Yes
Shrewsbury	35,608	9	63	42.1	-2.3	Yes
Rehoboth	11,608	1	22	64.6	-2.2	Yes
Chelmsford	33,802	9	67	44.4	-2.1	Yes
Southborough	9,767	0	0	76.8	-2.1	Yes
Longmeadow	15,784	3	48	54.9	-2.1	Yes
Winchester	21,374	5	58	52.3	-2.0	Yes
Westborough	18,272	4	55	54.7	-2.0	Yes
Sutton	8,963	0	0	83.7	-1.9	Yes
Littleton	8,924	0	0	84.0	-1.9	Yes
Weston	11,261	2	44	62.8	-1.9	Yes
Norfolk	11,227	2	45	63.0	-1.9	Yes
Wilbraham	14,219	3	53	60.9	-1.8	Yes
Marblehead	19,808	5	63	56.4	-1.7	Yes
Groton	10,646	2	47	66.4	-1.7	Yes
Foxborough	16,865	4	59	59.3	-1.7	Yes
Lakeville	10,602	2	47	66.7	-1.7	Yes
Belmont	24,729	7	71	53.5	-1.7	Yes
Dartmouth	34,032	11	81	48.7	-1.7	Yes
Framingham	68,318	27	99	38.0	-1.7	Yes
Walpole	24,070	7	73	55.0	-1.6	Yes
Auburn	16,188	4	62	61.8	-1.6	Yes
Wayland	12,994	3	58	66.6	-1.6	Yes

Charlton	12,981	3	58	66.7	-1.6	Yes
North Andover	28,352	9	79	52.9	-1.6	Yes
Kingston	12,629	3	59	68.6	-1.5	Yes
Franklin	31,635	11	87	52.4	-1.4	Yes
North Reading	14,892	4	67	67.2	-1.4	Yes
Lincoln	6,362	0	0	117.9	-1.4	Yes
Westwood	14,618	4	68	68.4	-1.4	Yes
Lynnfield	11,596	3	65	74.7	-1.3	Yes
Ashland	16,593	5	75	67.4	-1.3	Yes
Hanover	13,879	4	72	72.1	-1.2	Yes
Mansfield	23,184	8	86	61.0	-1.2	Yes
Westminster	7,277	1	34	103.1	-1.2	Yes
Montague	8,437	2	59	83.8	-1.2	Yes
Dover	5,589	0	0	134.2	-1.2	Yes
Great Barrington	7,104	1	35	105.6	-1.2	Yes
Dighton	7,086	1	35	105.8	-1.2	Yes
Holliston	13,547	4	74	73.8	-1.2	Yes
Melrose	26,983	10	93	58.6	-1.2	Yes
Andover	33,201	13	98	54.3	-1.2	Yes
Reading	24,747	9	91	60.6	-1.2	Yes
Natick	33,006	13	98	54.6	-1.2	Yes
Bedford	13,320	4	75	75.1	-1.2	Yes
Rochester	5,232	0	0	143.3	-1.1	Yes
Dalton	6,756	1	37	111.0	-1.1	Yes
Grafton	17,765	6	84	68.9	-1.1	Yes
Boxford	7,965	2	63	88.8	-1.1	Yes
Manchester	5,136	0	0	146.0	-1.1	Yes
Millis	7,891	2	63	89.6	-1.1	Yes
Acton	21,924	8	91	64.5	-1.1	Yes
Stow	6,590	1	38	113.8	-1.1	Yes
Sterling	7,808	2	64	90.6	-1.1	Yes
Boxborough	4,996	0	0	150.1	-1.1	Yes
Harvard	6,520	1	38	115.0	-1.1	Yes
Hamilton	7,764	2	64	91.1	-1.1	Yes
Williamstown	7,754	2	64	91.2	-1.1	Yes
Waltham	60,632	28	115	43.6	-1.1	Yes
Duxbury	15,059	5	83	74.2	-1.1	Yes
Carlisle	4,852	0	0	154.6	-1.0	Yes
Nantucket	10,172	3	74	85.1	-1.0	Yes
Upton	7,542	2	66	93.8	-1.0	Yes
Hudson	19,063	7	92	69.4	-1.0	Yes
Arlington	42,844	19	111	50.9	-1.0	Yes
Carver	11,509	16	348	173.8	1.1	Yes
Stoughton	26,962	31	287	103.3	1.2	Yes
Wareham	21,822	27	309	119.1	1.2	Yes
Malden	59,450	58	244	64.1	1.3	Yes
Taunton	55,874	59	264	68.7	1.5	Yes

Pittsfield	44,737	51	285	79.8	1.5	Yes
Weymouth	53,743	59	274	71.5	1.6	Yes
Revere	51,755	63	304	76.7	1.9	Yes
Everett	41,667	57	342	90.6	2.0	Yes
Brockton	93,810	101	269	53.6	2.0	Yes
Haverhill	60,879	78	320	72.5	2.2	Yes
Lowell	106,519	118	277	51.0	2.3	Yes
Worcester	181,045	179	247	36.9	2.3	Yes
Fall River	88,857	118	332	61.1	2.8	Yes
New Bedford	95,072	125	329	58.8	2.8	Yes
Quincy	92,271	123	333	60.1	2.9	Yes
Lynn	90,329	129	357	62.9	3.1	Yes
Abington	15,985	9	141	93.8	-0.2	No
Acushnet	10,303	5	121	108.5	-0.4	No
Adams	8,485	7	206	155.9	0.3	No
Agawam	28,438	12	105	60.9	-0.9	No
Alford	494	0	0	1518.2	-0.1	No
Amesbury	16,283	8	123	86.9	-0.4	No
Aquinnah	311	2	1608	2273.7	0.6	No
Ashburnham	6,081	2	82	116.3	-0.7	No
Ashby	3,074	0	0	244.0	-0.7	No
Ashfield	1,737	1	144	431.8	0.0	No
Athol	11,584	8	173	122.1	0.1	No
Attleboro	43,593	32	184	64.9	0.3	No
Avon	4,356	7	402	303.7	0.8	No
Ayer	7,427	3	101	116.6	-0.5	No
Barnstable	45,193	36	199	66.4	0.6	No
Barre	5,398	3	139	160.4	-0.1	No
Becket	1,779	0	0	421.6	-0.4	No
Belchertown	14,649	8	137	96.5	-0.3	No
Bellingham	16,332	8	122	86.6	-0.5	No
Berkley	6,411	4	156	156.0	0.0	No
Berlin	2,866	0	0	261.7	-0.6	No
Bernardston	2,129	2	235	332.1	0.2	No
Beverly	39,502	30	190	69.3	0.4	No
Billerica	40,243	26	162	63.4	0.0	No
Blackstone	9,026	3	83	95.9	-0.8	No
Blandford	1,233	0	0	608.3	-0.3	No
Bolton	4,897	1	51	153.2	-0.7	No
Boston	617,594	372	151	15.6	-0.7	No
Bourne	19,754	19	240	110.3	0.7	No
Boylston	4,355	1	57	172.2	-0.6	No
Braintree	35,744	22	154	65.6	-0.1	No
Brewster	9,820	3	76	88.2	-1.0	No
Bridgewater	26,563	18	169	79.9	0.1	No
Brimfield	3,609	0	0	207.8	-0.8	No
Brookfield	3,390	3	221	255.5	0.2	No

Buckland	1,902	2	263	371.8	0.3	No
Burlington	24,498	11	112	67.7	-0.7	No
Canton	21,561	14	162	86.8	0.0	No
Charlemont	1,266	0	0	592.4	-0.3	No
Chatham	6,125	2	82	115.4	-0.7	No
Chelsea	35,177	30	213	77.9	0.7	No
Cheshire	3,235	0	0	231.8	-0.7	No
Chester	1,337	0	0	561.0	-0.3	No
Chesterfield	1,222	0	0	613.7	-0.3	No
Chicopee	55,298	42	190	58.6	0.5	No
Chilmark	866	1	289	866.1	0.1	No
Clarksburg	1,702	2	294	415.5	0.3	No
Clinton	13,606	14	257	137.5	0.7	No
Cohasset	7,542	3	99	114.8	-0.5	No
Colrain	1,671	0	0	448.8	-0.4	No
Conway	1,897	0	0	395.4	-0.4	No
Cummington	872	0	0	860.1	-0.2	No
Danvers	26,493	19	179	82.3	0.2	No
Dedham	24,729	12	121	70.0	-0.6	No
Deerfield	5,125	1	49	146.3	-0.8	No
Dennis	14,207	14	246	131.7	0.6	No
Douglas	8,471	3	89	102.2	-0.7	No
Dracut	29,457	20	170	75.9	0.1	No
Dudley	11,390	6	132	107.5	-0.3	No
Dunstable	3,179	2	157	222.4	0.0	No
East Bridgewater	13,794	7	127	95.9	-0.4	No
East Brookfield	2,183	0	0	343.6	-0.5	No
East Longmeadow	15,720	12	191	110.2	0.3	No
Eastham	4,956	8	404	285.4	0.8	No
Easthampton	16,053	12	187	107.9	0.2	No
Easton	23,112	15	162	83.8	0.0	No
Edgartown	4,067	0	0	184.4	-0.9	No
Egremont	1,225	0	0	612.2	-0.3	No
Erving	1,800	1	139	416.7	-0.1	No
Essex	3,504	2	143	201.8	-0.1	No
Fairhaven	15,873	11	173	104.5	0.1	No
Falmouth	31,531	30	238	86.9	0.9	No
Fitchburg	40,318	35	217	73.4	0.8	No
Florida	752	0	0	997.3	-0.2	No
Freetown	8,870	5	141	126.0	-0.2	No
Gardner	20,228	15	185	95.7	0.2	No
Georgetown	8,183	5	153	136.6	-0.1	No
Gill	1,500	2	333	471.4	0.4	No
Gloucester	28,789	21	182	79.6	0.3	No
Goshen	1,054	1	237	711.6	0.1	No
Gosnold	75	0	0	10000.0	0.0	No
Granby	6,240	6	240	196.3	0.4	No

Granville	1,566	0	0	478.9	-0.3	No
Greenfield	17,456	18	258	121.5	0.8	No
Groveland	6,459	2	77	109.5	-0.8	No
Hadley	5,250	1	48	142.9	-0.8	No
Halifax	7,518	6	200	162.9	0.2	No
Hampden	5,139	2	97	137.6	-0.5	No
Hancock	717	0	0	1046.0	-0.2	No
Hanson	10,209	8	196	138.5	0.2	No
Hardwick	2,990	2	167	236.5	0.0	No
Harwich	12,243	9	184	122.5	0.2	No
Hatfield	3,279	3	229	264.1	0.3	No
Hawley	337	0	0	2225.5	-0.1	No
Heath	706	0	0	1062.3	-0.2	No
Hinsdale	2,032	2	246	348.0	0.2	No
Holbrook	10,791	12	278	160.5	0.7	No
Holden	17,346	9	130	86.5	-0.4	No
Holland	2,481	1	101	302.3	-0.2	No
Holyoke	39,880	29	182	67.5	0.3	No
Hopedale	5,911	4	169	169.2	0.0	No
Hopkinton	14,925	7	117	88.6	-0.5	No
Hubbardston	4,382	3	171	197.6	0.0	No
Hull	10,293	6	146	119.0	-0.1	No
Huntington	2,180	0	0	344.0	-0.5	No
Ipswich	13,175	11	209	125.9	0.4	No
Lancaster	8,055	5	155	138.8	0.0	No
Lanesborough	3,091	1	81	242.6	-0.3	No
Lawrence	76,377	62	203	51.5	0.8	No
Lee	5,943	4	168	168.3	0.0	No
Leicester	10,970	4	91	91.2	-0.8	No
Lenox	5,025	1	50	149.3	-0.8	No
Leominster	40,759	25	153	61.3	-0.1	No
Leverett	1,851	0	0	405.2	-0.4	No
Leyden	711	0	0	1054.9	-0.2	No
Ludlow	21,103	9	107	71.1	-0.8	No
Lunenburg	10,086	7	174	131.2	0.1	No
Marion	4,907	1	51	152.8	-0.7	No
Marlborough	38,499	17	110	53.5	-1.0	No
Marshfield	25,132	17	169	82.0	0.1	No
Mashpee	14,006	15	268	138.3	0.8	No
Mattapoisett	6,045	2	83	117.0	-0.7	No
Maynard	10,106	7	173	130.9	0.1	No
Medford	56,173	47	209	61.0	0.8	No
Mendon	5,839	3	128	148.3	-0.2	No
Merrimac	6,338	3	118	136.6	-0.3	No
Methuen	47,255	22	116	49.6	-0.9	No
Middleborough	23,116	24	260	106.0	0.9	No
Middlefield	521	1	480	1439.5	0.2	No

Middleton	8,987	6	167	136.3	0.0	No
Milford	27,999	12	107	61.9	-0.9	No
Millbury	13,261	10	189	119.2	0.2	No
Millville	3,190	0	0	235.1	-0.7	No
Monroe	121	0	0	6198.3	0.0	No
Monson	8,560	3	88	101.2	-0.7	No
Monterey	961	0	0	780.4	-0.2	No
Montgomery	838	0	0	895.0	-0.2	No
Mount Washington	167	0	0	4491.0	0.0	No
Nahant	3,410	1	73	219.9	-0.4	No
New Ashford	228	1	1096	3289.5	0.3	No
New Braintree	999	0	0	750.8	-0.2	No
New Marlborough	1,509	1	166	497.0	0.0	No
New Salem	990	1	253	757.6	0.1	No
Newbury	6,666	4	150	150.0	-0.1	No
Newburyport	17,416	9	129	86.1	-0.4	No
North Adams	13,708	15	274	141.3	0.8	No
North Attleboro	28,712	22	192	81.7	0.4	No
North Brookfield	4,680	3	160	185.0	0.0	No
Northampton	28,549	19	166	76.3	0.1	No
Northbridge	15,707	8	127	90.0	-0.4	No
Northfield	3,032	1	82	247.4	-0.3	No
Norton	19,031	13	171	94.7	0.1	No
Norwell	10,506	8	190	134.6	0.2	No
Norwood	28,602	12	105	60.6	-0.9	No
Oak Bluffs	4,527	4	221	220.9	0.3	No
Oakham	1,902	0	0	394.3	-0.4	No
Orange	7,839	8	255	180.4	0.5	No
Orleans	5,890	1	42	127.3	-0.9	No
Otis	1,612	0	0	465.3	-0.3	No
Oxford	13,709	11	201	121.0	0.3	No
Palmer	12,140	6	124	100.9	-0.4	No
Paxton	4,806	4	208	208.1	0.2	No
Peabody	51,251	35	171	57.7	0.2	No
Pelham	1,321	0	0	567.8	-0.3	No
Pembroke	17,837	13	182	101.1	0.2	No
Pepperell	11,497	6	130	106.5	-0.3	No
Peru	847	0	0	885.5	-0.2	No
Petersham	1,234	1	203	607.8	0.1	No
Phillipston	1,682	1	149	445.9	0.0	No
Plainfield	648	2	772	1091.2	0.6	No
Plainville	8,264	3	91	104.8	-0.7	No
Plymouth	56,468	47	208	60.7	0.8	No
Plympton	2,820	0	0	266.0	-0.6	No
Princeton	3,413	4	293	293.0	0.4	No
Provincetown	2,942	1	85	254.9	-0.3	No
Randolph	32,112	28	218	82.4	0.7	No

Raynham	13,383	10	187	118.1	0.2	No
Richmond	1,475	1	169	508.5	0.0	No
Rockland	17,489	18	257	121.3	0.8	No
Rockport	6,952	7	252	190.3	0.5	No
Rowe	393	0	0	1908.4	-0.1	No
Rowley	5,856	3	128	147.9	-0.2	No
Royalston	1,258	1	199	596.2	0.1	No
Russell	1,775	0	0	422.5	-0.4	No
Rutland	7,973	3	94	108.6	-0.6	No
Salem	41,340	35	212	71.6	0.7	No
Salisbury	8,283	12	362	209.1	1.0	No
Sandisfield	915	0	0	819.7	-0.2	No
Sandwich	20,675	8	97	68.4	-1.0	No
Saugus	26,628	25	235	93.9	0.8	No
Savoy	692	0	0	1083.8	-0.1	No
Scituate	18,133	10	138	87.2	-0.3	No
Sharon	17,612	9	128	85.2	-0.4	No
Sheffield	3,257	1	77	230.3	-0.4	No
Shelburne	1,893	3	396	457.5	0.5	No
Sherborn	4,119	2	121	171.7	-0.2	No
Shirley	7,211	5	173	155.0	0.1	No
Shutesbury	1,771	0	0	423.5	-0.4	No
Somerset	18,165	8	110	77.9	-0.7	No
Somerville	75,754	45	149	44.3	-0.3	No
South Hadley	17,514	7	100	75.5	-0.8	No
Southampton	5,792	2	86	122.1	-0.6	No
Southbridge	16,719	12	179	103.6	0.2	No
Southwick	9,502	4	105	105.2	-0.5	No
Spencer	11,688	10	214	135.3	0.4	No
Springfield	153,060	100	163	32.7	0.0	No
Stockbridge	1,947	1	128	385.2	-0.1	No
Stoneham	21,437	15	175	90.3	0.1	No
Sturbridge	9,268	3	81	93.4	-0.9	No
Sunderland	3,684	1	68	203.6	-0.5	No
Swampscott	13,787	7	127	96.0	-0.4	No
Swansea	15,865	13	205	113.6	0.4	No
Templeton	8,013	5	156	139.5	0.0	No
Tewksbury	28,961	18	155	73.2	-0.1	No
Tisbury	3,949	3	190	219.3	0.1	No
Tolland	485	0	0	1546.4	-0.1	No
Topsfield	6,085	3	123	142.3	-0.3	No
Townsend	8,926	8	224	158.4	0.4	No
Truro	2,003	0	0	374.4	-0.4	No
Tyngsborough	11,292	9	199	132.8	0.3	No
Tyringham	327	1	765	2293.6	0.3	No
Uxbridge	13,457	10	186	117.5	0.2	No
Wakefield	24,932	15	150	77.7	-0.1	No

Wales	1,838	0	0	408.1	-0.4	No
Ware	9,872	13	329	182.6	0.9	No
Warren	5,135	4	195	194.7	0.2	No
Warwick	780	0	0	961.5	-0.2	No
Washington	538	0	0	1394.1	-0.1	No
Watertown	31,915	18	141	66.5	-0.3	No
Webster	16,767	14	209	111.6	0.4	No
Wellfleet	2,750	2	182	257.1	0.1	No
Wendell	848	0	0	884.4	-0.2	No
Wenham	4,875	3	154	177.6	0.0	No
West Boylston	7,669	5	163	145.8	0.0	No
West Bridgewater	6,916	9	325	216.9	0.8	No
West Brookfield	3,701	3	203	234.0	0.2	No
West Newbury	4,235	0	0	177.1	-0.9	No
West Springfield	28,391	18	159	74.7	0.0	No
West Stockbridge	1,306	0	0	574.3	-0.3	No
West Tisbury	2,740	1	91	273.7	-0.3	No
Westfield	41,094	24	146	59.6	-0.3	No
Westhampton	1,607	0	0	466.7	-0.3	No
Westport	15,532	9	145	96.6	-0.2	No
Whately	1,496	0	0	501.3	-0.3	No
Whitman	14,489	12	207	119.5	0.4	No
Williamsburg	2,482	1	101	302.2	-0.2	No
Wilmington	22,325	16	179	89.6	0.2	No
Winchendon	10,300	5	121	108.5	-0.4	No
Windsor	899	0	0	834.3	-0.2	No
Winthrop	17,497	19	271	124.6	0.9	No
Woburn	38,120	22	144	61.5	-0.3	No
Worthington	1,156	0	0	648.8	-0.2	No
Wrentham	10,955	4	91	91.3	-0.8	No
Yarmouth	23,793	24	252	103.0	0.9	No
High hazard	1,176,301	1,392	296	15.9	8.5	Yes
Percent of state	18%	33%				