Data Brief: Opioid-Related Overdose Deaths among Massachusetts Residents

Massachusetts Department of Public Health | POSTED: DECEMBER 2023

This report contains both confirmed and estimated data through September 30, 2023. Figure 1 shows the month-by-month estimates for fatal opioid-related overdose deaths for all intents from April 2022 to September 2023. Preliminary data for January through September 2023 shows that there were 1,309 confirmed opioid-related deaths, and DPH estimates that there will be an additional 369 to 448 deaths, totaling approximately 1,718 confirmed and estimated opioid-related overdose deaths. As a point of comparison, in the 12-month period ending September 2023, DPH estimates that there will be a total of 2,323 opioid-related overdose deaths, which is 8 fewer than the estimated total 2,331 for the 12-month period ending September 2022.

Figure 1. Opioid-Related Overdose Deaths, All Intents by Month
Massachusetts Residents: April 2022- September 2023

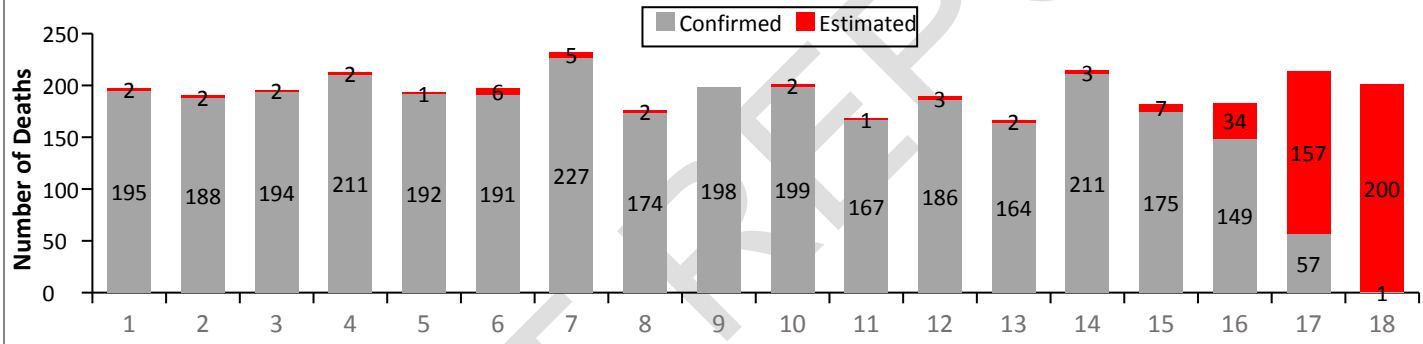


Figure 2 shows the trend in annual number of confirmed and estimated cases of opioid-related overdose deaths for all intents from 2000 to 2022. To obtain timelier estimates of the total number of opioid-related overdose deaths in Massachusetts - confirmed and estimated - DPH used predictive modeling techniques for all cases not yet finalized by the Office of the Chief Medical Examiner (OCME). Based on the data available as of October 19, 2023, there were 2,331 confirmed opioid-related overdose deaths in 2022 and DPH estimates that there will be an additional 18 to 38 deaths, totaling approximately 2,359 deaths once all cases are finalized. There were 60 more confirmed and estimated deaths in 2022 compared with 2021.

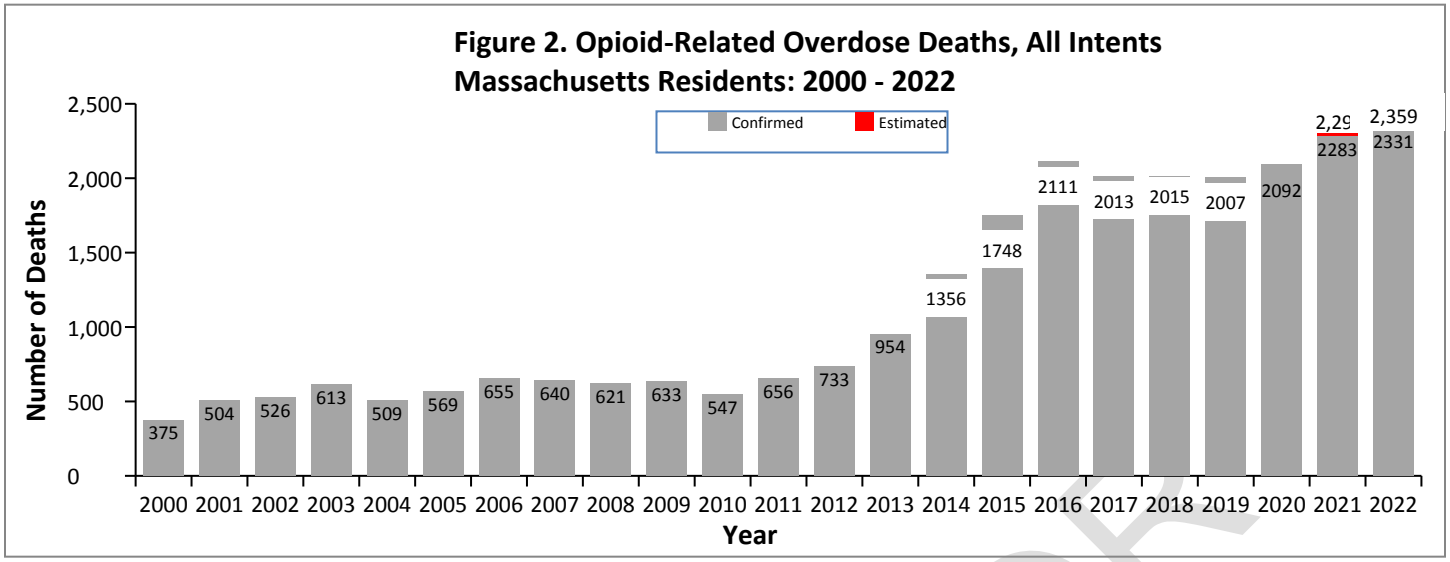


Figure 3 shows that the 2022 opioid-related overdose death rate (33.6 per 100,000 people) is 9% higher than in 2016 (30.7 per 100,000 people) and is 3% higher than 2021 (32.7 per 100,000 people). Joinpoint analysis indicated that there was a statistically significant increase in opioid overdose death rates from 2012 to 2015 at a rate of 36% per year on average and a significant increase of 3% per year on average from 2015 to 2022.

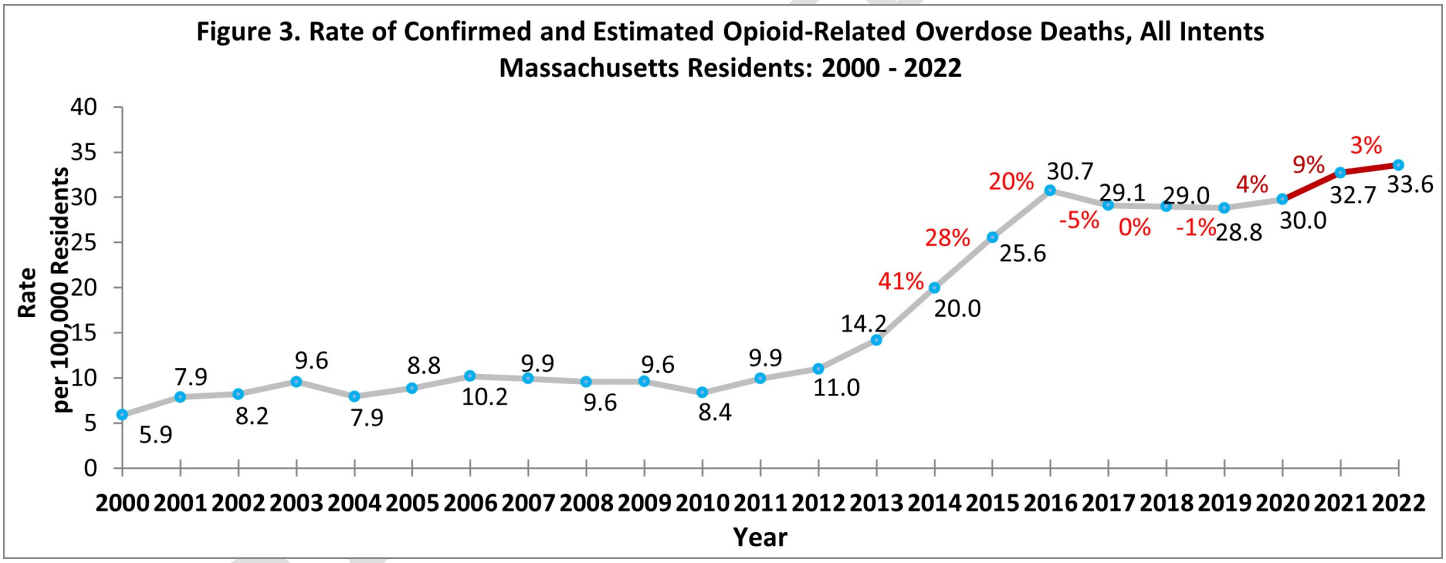
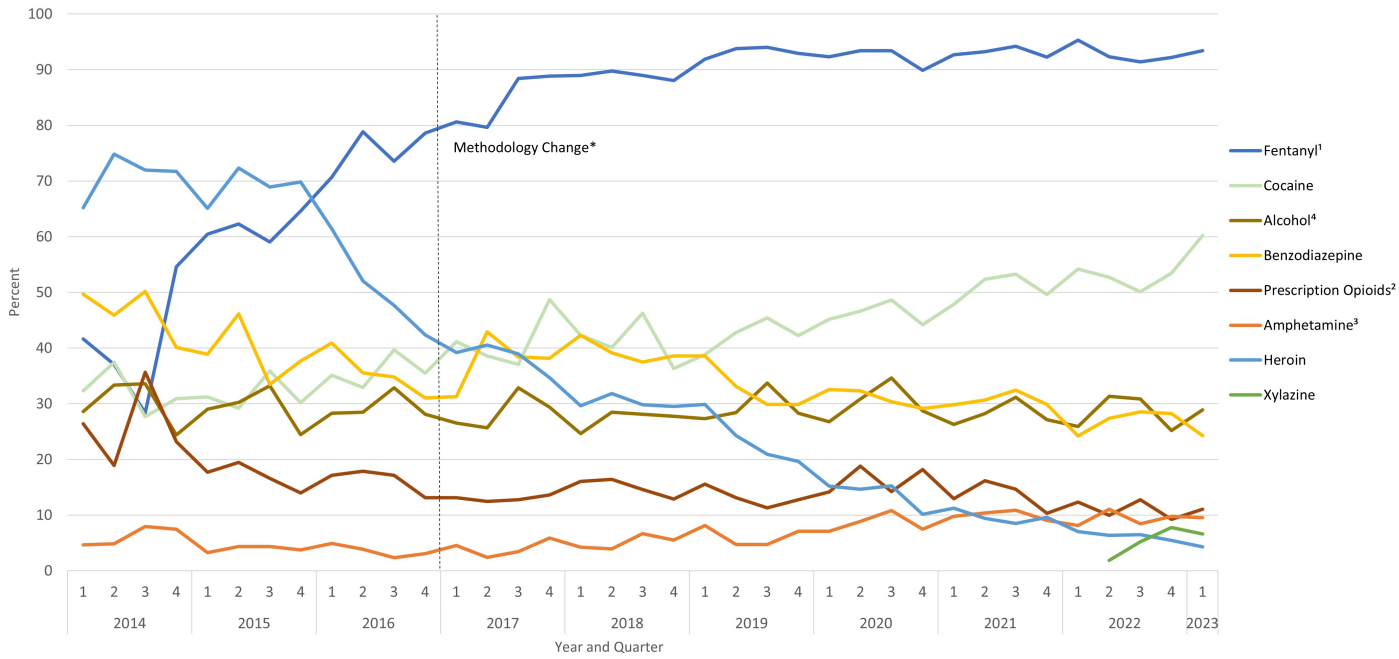


Figure 4 shows that in 2022 there were 2,170 opioid-related overdose deaths where a toxicology screen was also available. Among these deaths, fentanyl was present in 93%, cocaine in 53%, alcohol in 28%, benzodiazepines in 27%, prescription opioids in 11%, amphetamines in 9%, heroin in 6%, and xylazine in 5%. In the first quarter of 2023, there were 515 opioid-related overdose deaths where a toxicology screen was also available. Among these deaths, fentanyl was present in 93%, cocaine in 60%, alcohol in 29%, benzodiazepines in 24%, amphetamines in 10%, prescription opioids in 11%, and heroin in 4%. Since June of 2022, xylazine was routinely reported among opioid-related overdose deaths. In the first quarter of 2023, xylazine was present in 7% of opioid-related overdose deaths. The results are shown in Figure 4. Fentanyl increased significantly by 12% per quarter on average from 2016 to 2018 and has continued to increase, although not significantly. Notably, the presence of stimulants in toxicology has increased since 2014: cocaine has increased at a rate of 6% per quarter on average from 2016, and amphetamines have increased about 20% per quarter on average since 2016. There was an increase in the presence of cocaine in these deaths in the last two quarters

where data are available and the 60% in the first quarter of 2023 is an all-time high It's important to note that the data cannot tell us whether the presence of cocaine and fentanyl together is due to purposeful co-use of fentanyl and cocaine or use of cocaine that is unknowingly contaminated with fentanyl. Heroin or likely heroin decreased by 22% per quarter on average between 2016 and 2019; and by 35% per quarter on average since 2019. The percentage of benzodiazepines has decreased per quarter on average from 2016 to date, although not significantly.

Figure 4. Percent of Opioid-Related Overdose Deaths with Specific Drugs Present in Massachusetts : 2014 - 2023



* Beginning with the November 2019 report, DPH began to use a new method to identify substances present in the toxicology data, which can only be applied from 2017 onward; this new method cannot be applied to the older data

1. This is most likely illicitly produced and sold, **not** prescription fentanyl
2. Prescription opioids include: hydrocodone, hydromorphone, oxycodone, oxymorphone, and tramadol
3. Beginning with the February 2020 report, amphetamine includes both amphetamine and methamphetamine; methamphetamine was previously excluded
4. Beginning with the February 2021 report, a category for alcohol was added
5. Beginning with the December 2022 report, a category for xylazine was added

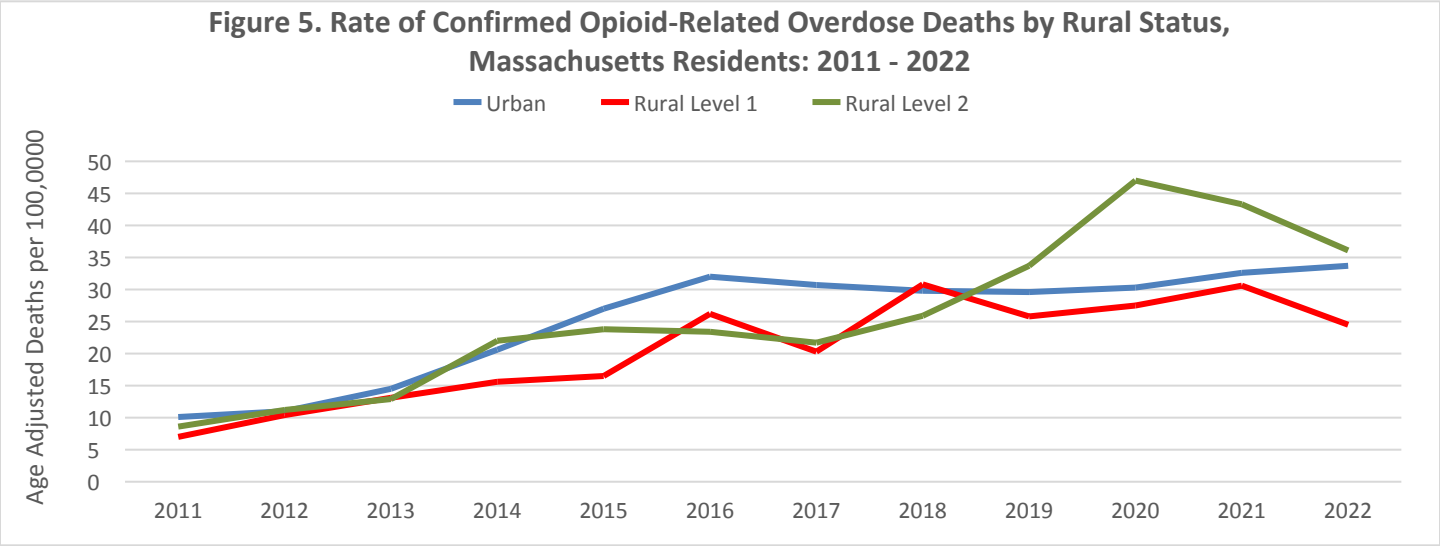
Please note that previous estimates may change slightly as DPH routinely receives updated toxicology data from the Office of the Chief Medical Examiner and the Massachusetts State Police.

Fentanyl is a synthetic and highly potent opioid that is in the drug supply in Massachusetts. Most of the fentanyl in Massachusetts is due to illicitly produced fentanyl, not diverted pharmaceutical fentanyl. The drug supply is volatile with variable concentrations of active substances, which can increase the risk of toxicity and overdose.

While screening tests can be used to note the rate at which certain drugs are detected in toxicology reports, they are insufficient to determine the final cause of death without additional information. The cause of death is a clinical judgment made within the Office of the Chief Medical Examiner.

Starting with the June 2023 report, communities were classified according to the Massachusetts State Office of Rural Health's definition based on their population levels and proximity to urban areas. Towns classified as rural level 1 and rural level 2 are all rural communities, but towns in level 2 are less densely populated and more isolated from urban core areas. In 2022, rural level 2 communities had the highest age-adjusted opioid-related overdose death rate at 36.1 deaths per 100,000 residents (Figure 5). From 2011 to 2014, age-adjusted rates in rural level 2 communities rose by approximately 33% annually on average, while rural level 1 communities experienced a 26% annual increase on average

from 2011 to 2016. Over the same period, urban/suburban communities also saw a comparable 27% average annual increase in age-adjusted opioid-related overdose death rates.



Note: For detailed information please refer to the companion data standard document and style guide located at: https://www.mass.gov/service-details/state-office-of-rural-health-rural-definition.

Rural towns are classified into two categories of rurality. Communities classified as rural level one (rural1) meet fewer rural criteria than Communities considered rural at level two (rural2).

- Communities in level two are less densely populated and more remote and isolated from urban core areas.
- Communities in level one and level two are both rural.
- Communities not in level one or two are considered urban.

Technical Notes

- Opioids include heroin, illicitly manufactured fentanyl, opioid-based prescription painkillers, and other unspecified opioids.
- Data for 2021-2023 deaths are preliminary and subject to updates.
- Beginning with the May 2017 report, DPH started reporting opioid-related overdose deaths for all intents, which includes unintentional/undetermined and suicide.
- Beginning with the August 2019 report, DPH updated the case definition used to identify opioid-related overdose deaths to match the CDC's case definition. The following International Classification of Disease (ICD-10) codes for mortality were selected from the underlying cause of death field to identify poisonings/overdoses: X40-X44, X60-X64, X85, and Y10-Y14. All multiple cause of death fields were then used to identify an opioid-related overdose death: T40.0, T40.1, T40.2, T40.3, T40.4, and T40.6.
- This report tracks opioid-related overdoses due to difficulties in identifying heroin and prescription opioids separately. The Department regularly reviews projections as more information becomes available. Information from the Office of the Chief Medical Examiner and the Massachusetts State Police are now incorporated into the predictive model. This additional information has improved the accuracy of the model that predicts the likelihood that the cause of death for any person was an opioid-related overdose. DPH applied this model to death records for which no official cause of death was listed by the OCME. The model includes information from the death certificate, Medical Examiner's notes, and the determination by the State Police of a suspected heroin death. DPH added this estimate to the number of confirmed cases to compute the total number of opioid-related overdoses. Should new information become available that changes the estimates to any significant degree, updates will be posted.

Sources

- Massachusetts Registry of Vital Records and Statistics, MDPH
- Massachusetts Office of the Chief Medical Examiner
- Massachusetts State Police
- Population Estimates 2000-2010: National Center for Health Statistics. Postcensal estimates of the resident population of the United States, by year, county, age, bridged race, Hispanic origin, and sex (Vintage 2000-2010).
- Population Estimates 2011-2019, version 2020, Massachusetts Department of Public Health, Bureau of Environmental Health. Version 2020 years 2018-2019 apply updates from U.S. Census Bureau's County Population by Characteristics, vintage 2020; all previous years apply updates from U.S. Census Bureau's County Population by Characteristics, vintage 2019 or earlier. These estimates were developed by the University of Massachusetts Donahue Institute (UMDI) in partnership with the Massachusetts Department of Public Health, Bureau of Environmental Health.

UMDI Interim 2020 Population Estimates by Age, Sex, Race, and Municipality, UMass Donahue Institute Population Estimates Program, March 1, 2022.

Number of Opioid-Related Overdose Deaths, All Intents by County, MA Residents: 2012-2022

Massachusetts Department of Public Health

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County	Year of Death												
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total 2012-2022	Percent Change 2022 vs. 2021
Barnstable	24	43	53	67	81	67	71	73	76	80	87	722	8.8%
Berkshire	16	22	29	32	35	30	40	40	56	62	47	418	-24.2%
Bristol	95	115	145	172	243	239	218	260	233	293	276	2371	-5.8%
Dukes	0	1	5	7	3	2	4	3	6	5	6	42	20.0%
Essex	93	119	205	236	274	301	273	279	251	291	278	2657	-4.5%
Franklin	8	10	11	18	14	9	22	17	20	36	27	198	-25.0%
Hampden	59	69	64	98	130	113	209	199	215	213	230	1644	8.0%
Hampshire	11	30	26	16	36	28	38	39	34	44	37	349	-15.9%
Middlesex	118	152	273	341	402	350	322	304	297	360	382	3431	6.1%
Nantucket	0	0	1	1	2	3	1	2	1	4	2	17	-50.0%
Norfolk	70	82	125	164	213	167	170	130	154	163	160	1663	-1.8%
Plymouth	57	86	110	174	190	202	151	176	184	167	190	1755	13.8%
Suffolk	90	110	146	199	242	252	215	218	287	299	305	2448	2.0%
Worcester	91	115	162	222	246	250	281	267	278	281	331	2606	17.8%
Total Deaths	**733**	**954**	**1,356**	**1,748**	**2,111**	**2,013**	**2,015**	**2,007**	**2,092**	**2,299**	**2,359**	**20,343**	**2.6%**

Technical Notes

- Data for 2021 to 2022 deaths are preliminary and subject to updates. Case reviews of deaths are evaluated and updated on an ongoing basis. Many death certificates have yet to be assigned final cause of death codes. 2021 to 2022 counts are based on the estimates rather than confirmed cases. Data updated on 10/19/2023.
- Please note that some totals may not add up due to deaths with unknown city/town of residence and the rounding of counts.
- Opioids include heroin, illicitly manufactured fentanyl, opioid-based prescription painkillers, and other unspecified opioids.
- Beginning with the August 2019 report, DPH updated the case definition used to identify opioid-related overdose deaths to match the CDC's case definition. The following International Classification of Disease (ICD-10) codes for mortality were selected from the underlying cause of death field to identify poisonings/overdoses: X40-X44, X60-X64, X85, and Y10-Y14. All multiple cause of death fields were then used to identify an opioid-related overdose death: T40.0, T40.1, T40.2, T40.3, T40.4, and T40.6.
- This report tracks all opioid-related overdoses due to difficulties in reporting heroin-associated overdoses separately. Many deaths related to heroin are not specifically coded as such due to the fast metabolism of heroin into morphine.
- To maintain consistency with NCHS reporting, DPH does not include the ICD-10 code F11.1, which may include opioid-related overdose deaths.
- Beginning with the May 2017 report, DPH started reporting opioid-related overdose deaths for all intents, which includes unintentional/undetermined and suicide.

Sources

- Massachusetts Registry of Vital Records and Statistics, MDPH
- Massachusetts Office of the Chief Medical Officer

Number of Opioid-Related Overdose Deaths, All Intents by City/Town 2015-2022

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Note to Readers: As previously published, Table 1 contains counts of opioid-related overdose deaths in the city/town of residence for the decedents among MA residents. Table 2 contains counts of opioid-related overdose deaths in the city/town of the death occurrence. The counts in Table 2 are different from Table 1 because they include counts based on location of death versus location of the decedent's residence (Table 1). Massachusetts residents who died in Massachusetts are included in both tables. Massachusetts residents who died outside of Massachusetts are included in the "Death Occurrence" table (Table 2) as "Outside of Massachusetts". Non-Massachusetts residents who died in Massachusetts are not included in the "Residence" table (Table 1).

Table 1. Number of confirmed opioid-related overdose deaths for all intents by city/town of residence for the decedent, among MA residents, 2015-2022. From 2020 to 2022, additional cases **are still being confirmed by the Office of the Chief Medical Examiner. This report will be updated quarterly, and all new confirmed cases will be included in the table below with previously confirmed cases.**

City/Town of Residence	Year of Death							
	2015	2016	2017	2018	2019	2020	2021	2022
Abington	6	3	4	11	4	2	9	6
Acton	4	7	1	4	0	2	4	3
Acushnet	4	4	7	2	1	2	2	5
Adams	3	1	0	7	2	1	5	3
Agawam	5	4	8	12	13	17	8	8
Alford	0	0	0	0	0	0	0	0
Amesbury	7	8	10	9	7	5	8	7
Amherst	1	2	3	2	3	2	1	1
Andover	6	3	2	2	6	0	8	4
Aquinnah	1	0	0	0	0	0	0	0
Arlington	6	6	3	3	4	4	3	10
Ashburnham	1	2	0	1	2	2	0	4
Ashby	0	0	0	0	1	1	2	0
Ashfield	1	0	0	1	0	0	0	0
Ashland	4	4	4	2	3	1	1	4
Athol	3	3	6	6	7	14	12	9
Attleboro	10	18	26	11	21	10	22	21
Auburn	4	2	4	6	4	3	4	8
Avon	3	3	2	2	1	3	3	1
Ayer	1	8	1	2	4	1	1	3
Barnstable	13	21	13	18	18	14	15	22
Barre	3	0	0	3	3	1	0	0
Becket	0	0	0	2	0	0	0	0
Bedford	1	6	3	3	4	3	3	1
Belchertown	2	2	5	7	3	4	1	2

Bellingham	3	5	4	8	4	2	6	4
Belmont	4	4	4	2	2	1	2	2
Berkley	0	5	3	1	3	1	3	3
Berlin	1	0	0	0	1	0	3	1
Bernardston	0	1	0	0	0	1	0	0
Beverly	14	18	12	7	17	15	8	7
Billerica	14	16	14	13	11	10	11	7
Blackstone	3	7	1	3	0	2	1	4
Blandford	0	0	0	0	0	0	1	0
Bolton	2	1	0	1	0	1	0	0
Boston	155	198	203	183	173	248	251	248
Bourne	8	9	12	3	6	7	5	11
Boxborough	0	1	1	0	1	1	1	1
Boxford	2	1	1	0	1	0	1	0
Boylston	2	0	1	1	1	1	1	0
Braintree	10	9	16	10	12	11	7	10
Brewster	0	3	0	2	3	4	3	2
Bridgewater	13	10	7	5	1	5	5	3
Brimfield	0	1	1	2	2	2	1	1
Brockton	52	44	52	35	53	48	58	61
Brookfield	0	1	2	2	1	1	1	1
Brookline	3	2	6	3	4	3	1	3
Buckland	1	0	0	0	0	0	1	1
Burlington	3	8	8	3	4	1	3	2
Cambridge	13	27	12	11	14	13	21	32
Canton	6	6	9	4	0	3	1	3
Carlisle	0	0	0	1	2	0	1	0
Carver	7	8	6	1	5	5	1	5
Charlemont	0	0	0	0	1	0	0	0
Charlton	1	4	6	1	2	2	0	3
Chatham	2	1	0	1	0	0	0	1
Chelmsford	5	6	6	3	3	4	7	13
Chelsea	18	14	14	10	12	12	12	16
Cheshire	0	1	1	3	0	2	3	1
Chester	0	0	1	1	1	2	2	0
Chesterfield	0	0	0	0	0	1	1	0
Chicopee	18	26	19	31	33	35	26	34
Chilmark	0	0	0	0	0	0	1	0
Clarksburg	0	0	1	0	1	1	0	0
Clinton	6	7	2	5	5	7	4	5
Cohasset	0	2	1	2	1	1	0	0
Colrain	0	0	0	0	0	1	2	0
Concord	0	1	1	2	0	2	2	1
Conway	0	0	0	0	0	0	0	0
Cummington	0	0	0	0	1	1	0	1
Dalton	0	1	0	0	0	0	3	1
Danvers	7	4	9	8	5	9	4	8
Dartmouth	2	9	6	4	10	5	6	11
Dedham	5	11	3	5	4	7	10	8

Deerfield	1	0	0	1	0	0	3	2
Dennis	2	6	5	14	6	10	10	7
Dighton	0	3	1	2	0	0	1	0
Douglas	2	2	2	2	2	1	4	1
Dover	0	0	1	0	1	0	0	0
Dracut	8	6	5	10	11	7	10	9
Dudley	0	1	3	5	0	1	5	5
Dunstable	0	0	1	1	1	0	0	0
Duxbury	1	3	1	0	2	3	2	2
East Bridgewater	2	1	4	6	2	6	3	5
East Brookfield	0	0	0	0	1	0	1	0
East Longmeadow	4	2	0	1	3	2	1	2
Eastham	2	0	1	0	2	2	3	0
Easthampton	1	5	4	6	3	5	4	6
Easton	8	8	7	5	2	3	9	2
Edgartown	0	0	0	1	0	0	1	0
Egremont	0	0	0	0	0	0	1	0
Erving	0	0	0	0	1	0	2	0
Essex	1	0	0	1	0	1	0	0
Everett	17	23	18	15	15	16	25	20
Fairhaven	7	4	8	5	9	8	4	8
Fall River	40	64	55	55	67	75	70	77
Falmouth	14	16	21	11	13	14	21	14
Fitchburg	19	23	25	15	21	19	17	20
Florida	0	0	0	0	1	0	0	0
Foxborough	0	7	2	4	4	2	6	1
Framingham	12	18	8	20	21	24	8	17
Franklin	7	7	2	7	5	3	3	3
Freetown	3	3	6	4	4	3	5	1
Gardner	6	8	8	12	6	4	11	15
Georgetown	2	1	3	2	1	0	0	0
Gill	0	0	0	0	1	0	0	0
Gloucester	12	9	16	17	14	12	18	10
Goshen	0	0	0	0	0	0	0	0
Gosnold	0	0	0	0	0	0	0	0
Grafton	2	1	0	3	6	2	3	3
Granby	2	1	0	1	3	1	0	2
Granville	0	0	0	0	1	0	0	0
Great Barrington	0	1	0	2	1	3	0	1
Greenfield	8	7	4	11	7	7	11	9
Groton	1	0	1	0	2	2	0	0
Groveland	0	1	1	0	2	1	1	0
Hadley	0	2	1	2	0	1	3	3
Halifax	1	2	0	3	2	3	0	3
Hamilton	0	3	0	1	3	0	2	1
Hampden	0	1	0	4	1	1	4	0
Hancock	0	1	0	0	0	0	0	0
Hanover	1	6	1	2	1	1	0	2
Hanson	8	2	1	3	5	4	2	2

Hardwick	2	2	0	1	1	4	0	1
Harvard	0	0	0	1	0	0	2	1
Harwich	4	3	1	2	3	2	1	5
Hatfield	1	1	1	1	0	0	1	0
Haverhill	30	38	28	25	24	31	33	22
Hawley	0	0	0	0	0	1	0	0
Heath	0	0	0	0	0	0	0	0
Hingham	0	1	1	2	2	2	2	3
Hinsdale	1	2	0	0	1	3	0	0
Holbrook	4	7	4	8	4	2	5	4
Holden	4	5	1	3	1	2	3	3
Holland	1	0	0	0	0	1	1	1
Holliston	5	1	3	1	1	1	3	0
Holyoke	6	11	13	14	16	21	23	27
Hopedale	0	1	2	1	0	1	0	0
Hopkinton	4	0	3	3	1	2	1	1
Hubbardston	2	1	1	2	1	1	1	0
Hudson	6	3	4	6	7	8	4	0
Hull	4	5	7	5	10	10	6	3
Huntington	0	0	0	1	0	2	0	3
Ipswich	3	3	3	5	5	3	4	2
Kingston	3	1	7	2	8	3	5	3
Lakeville	0	1	4	2	2	4	5	4
Lancaster	2	1	2	0	5	2	2	0
Lanesborough	1	1	2	0	1	2	1	0
Lawrence	30	45	40	50	55	39	48	59
Lee	1	1	3	2	0	2	3	0
Leicester	2	2	4	6	4	5	3	3
Lenox	0	0	2	0	0	2	0	1
Leominster	7	13	16	12	15	13	12	14
Leverett	0	0	1	0	0	0	1	0
Lexington	3	2	0	3	1	0	0	6
Leyden	0	0	0	0	0	0	0	0
Lincoln	0	1	0	0	0	2	1	0
Littleton	0	2	1	1	3	0	1	1
Longmeadow	0	3	0	2	3	1	2	0
Lowell	65	68	53	66	44	46	62	53
Ludlow	4	7	4	7	10	2	7	8
Lunenburg	2	1	2	3	3	4	3	1
Lynn	48	46	63	51	57	49	63	75
Lynnfield	3	1	2	5	4	1	0	3
Malden	21	15	16	19	13	24	21	24
Manchester	0	2	0	0	1	0	1	0
Mansfield	3	8	8	3	4	3	5	6
Marblehead	0	4	6	3	0	1	2	0
Marion	1	1	1	1	1	1	1	0
Marlborough	9	4	4	14	9	15	14	10
Marshfield	2	9	12	8	6	9	4	5
Mashpee	11	8	1	2	6	5	3	8

Mattapoisett	2	2	1	5	2	2	3	2
Maynard	3	0	2	1	2	2	4	5
Medfield	0	1	0	2	0	1	0	0
Medford	21	18	19	8	10	8	12	20
Medway	1	3	0	3	0	1	0	1
Melrose	2	10	11	8	4	3	7	7
Mendon	1	0	0	2	2	1	0	3
Merrimac	2	1	1	1	2	0	1	2
Methuen	7	14	20	18	15	14	12	13
Middleborough	13	11	7	6	12	14	11	6
Middlefield	0	0	0	0	0	1	1	0
Middleton	4	2	3	2	2	0	2	1
Milford	4	12	6	6	4	2	9	9
Millbury	4	4	7	7	8	6	2	4
Millis	1	4	1	2	1	2	1	2
Millville	1	0	0	0	0	1	1	0
Milton	2	6	1	7	2	2	2	2
Monroe	0	0	0	0	0	0	0	0
Monson	0	3	1	2	3	5	3	1
Montague	1	3	2	2	2	2	7	8
Monterey	0	0	0	0	0	0	1	0
Montgomery	0	1	0	0	0	1	0	0
Mount Washington	0	0	0	0	0	1	0	0
Nahant	1	2	0	0	2	0	3	1
Nantucket	1	2	3	1	2	1	4	2
Natick	5	3	7	4	5	5	7	6
Needham	1	1	1	2	1	2	3	1
New Ashford	1	0	0	0	0	0	0	0
New Bedford	55	57	45	54	75	64	81	81
New Braintree	0	0	0	0	0	1	1	0
New Marlborough	0	0	1	1	0	0	0	0
New Salem	1	0	0	0	0	1	0	0
Newbury	2	1	1	2	0	1	1	0
Newburyport	2	4	5	4	3	2	5	6
Newton	7	16	9	4	7	7	9	10
Norfolk	2	3	0	2	0	2	0	1
North Adams	6	6	5	2	10	13	9	7
North Andover	4	3	4	1	5	2	6	6
North Attleboro	8	8	9	5	4	9	8	11
North Brookfield	0	3	1	0	1	0	1	0
North Reading	2	2	6	5	2	4	2	2
Northampton	4	8	7	9	13	8	11	7
Northborough	0	3	3	1	1	2	1	1
Northbridge	4	2	4	6	4	3	5	3
Northfield	1	0	0	1	1	1	0	0
Norton	1	7	5	4	7	5	15	4
Norwell	3	1	3	1	3	4	0	0
Norwood	7	6	8	6	5	5	8	8
Oak Bluffs	3	1	1	0	1	4	1	5

Oakham	0	0	0	1	0	1	2	0
Orange	3	1	1	4	2	3	7	4
Orleans	0	2	0	5	1	1	1	2
Otis	0	1	0	0	0	0	0	1
Oxford	4	7	4	1	8	9	6	3
Palmer	1	4	3	8	8	7	5	7
Paxton	1	0	0	1	1	2	1	1
Peabody	11	11	23	14	18	18	13	14
Pelham	0	0	0	0	0	0	0	0
Pembroke	4	8	7	0	3	4	3	3
Pepperell	3	1	2	2	4	4	1	3
Peru	0	0	1	0	0	1	1	0
Petersham	0	0	0	0	1	0	0	1
Phillipston	0	0	0	0	0	0	1	2
Pittsfield	17	18	13	19	21	22	33	29
Plainfield	0	0	0	0	1	0	0	1
Plainville	0	3	5	0	2	5	3	2
Plymouth	20	25	24	20	20	21	15	19
Plympton	1	2	0	0	1	1	0	0
Princeton	1	1	0	1	0	0	0	1
Provincetown	0	0	0	0	2	1	1	0
Quincy	47	46	41	40	45	42	50	44
Randolph	12	11	6	10	6	6	13	18
Raynham	4	2	4	3	2	6	6	4
Reading	3	4	7	5	3	1	3	5
Rehoboth	2	0	2	3	4	3	0	1
Revere	19	26	24	15	28	21	25	30
Richmond	0	0	0	0	0	1	0	0
Rochester	0	0	2	1	1	1	1	2
Rockland	11	22	17	10	5	8	4	11
Rockport	3	1	2	2	1	4	0	1
Rowe	0	0	0	0	0	0	0	1
Rowley	0	0	3	1	1	0	1	1
Royalston	0	1	0	0	0	1	0	0
Russell	0	0	0	1	0	0	0	1
Rutland	0	2	1	1	3	1	5	4
Salem	16	18	21	20	15	23	24	18
Salisbury	6	12	10	5	4	3	5	1
Sandisfield	0	0	0	0	0	1	1	0
Sandwich	2	4	3	6	4	5	5	3
Saugus	10	13	8	11	5	14	11	9
Savoy	0	0	0	0	0	0	0	0
Scituate	4	3	3	1	4	1	3	3
Seekonk	3	4	2	2	4	8	3	1
Sharon	1	1	2	0	2	1	1	3
Sheffield	0	0	0	0	1	0	0	0
Shelburne	0	1	0	0	1	0	0	0
Sherborn	1	1	1	1	0	0	0	0
Shirley	0	0	3	0	3	3	2	1

Shrewsbury	2	7	8	7	6	4	3	6
Shutesbury	0	0	0	0	0	1	0	0
Somerset	4	5	5	5	2	4	4	5
Somerville	18	21	16	7	17	14	17	22
South Hadley	2	4	3	4	5	5	6	3
Southampton	1	2	1	0	0	0	1	0
Southborough	0	1	0	1	2	0	1	2
Southbridge	7	12	5	5	14	15	11	9
Southwick	1	2	3	4	1	6	5	7
Spencer	10	3	5	4	5	2	4	3
Springfield	43	40	38	83	72	89	84	106
Sterling	0	2	1	2	2	1	0	5
Stockbridge	0	0	1	1	0	1	0	0
Stoneham	7	8	6	6	4	9	6	6
Stoughton	14	11	7	15	6	18	10	9
Stow	1	1	1	0	1	1	1	0
Sturbridge	1	2	5	1	1	1	1	0
Sudbury	0	0	0	3	3	0	0	1
Sunderland	0	1	1	1	0	0	1	1
Sutton	1	0	0	2	2	2	0	1
Swampscott	2	4	2	4	3	0	2	2
Swansea	0	1	5	7	6	5	7	4
Taunton	16	29	29	35	27	16	35	25
Templeton	2	5	2	4	1	1	5	4
Tewksbury	9	13	11	7	6	5	11	7
Tisbury	3	1	1	3	2	1	2	1
Tolland	0	0	0	1	0	0	0	0
Topsfield	0	1	1	0	1	2	0	0
Townsend	1	2	4	2	2	2	0	2
Truro	0	1	0	0	0	0	0	1
Tyngsborough	5	1	3	5	2	1	2	1
Tyringham	1	0	0	0	0	0	0	0
Upton	0	2	1	2	2	1	3	1
Uxbridge	4	0	1	3	1	3	5	3
Wakefield	8	10	9	10	4	5	14	7
Wales	0	0	1	2	1	1	2	0
Walpole	4	7	4	10	5	1	5	3
Waltham	11	16	15	7	15	6	12	23
Ware	2	9	2	4	6	3	13	6
Wareham	7	15	17	15	14	16	17	25
Warren	2	0	1	1	2	2	2	3
Warwick	1	0	0	0	0	1	0	0
Washington	0	0	0	0	0	0	0	0
Watertown	11	9	9	3	8	4	11	3
Wayland	1	2	2	2	1	1	1	0
Webster	8	5	10	9	11	8	5	8
Wellesley	2	1	1	1	0	1	3	0
Wellfleet	0	0	2	0	1	1	0	1
Wendell	0	0	0	0	0	0	0	0

Wenham	1	0	1	2	0	0	1	0
West Boylston	0	1	3	4	3	1	1	1
West Bridgewater	0	3	3	2	0	2	3	4
West Brookfield	0	1	0	0	1	0	1	0
West Newbury	0	0	0	0	0	1	0	0
West Springfield	6	9	11	14	11	12	16	11
West Stockbridge	1	0	0	0	1	0	0	1
West Tisbury	0	1	0	0	0	1	0	0
Westborough	3	4	3	6	1	2	0	0
Westfield	7	15	10	19	20	8	18	12
Westford	0	3	7	2	0	4	4	1
Westhampton	0	0	0	0	0	0	0	2
Westminster	0	0	2	4	2	3	0	1
Weston	0	0	2	0	0	1	0	1
Westport	2	4	6	8	8	3	5	5
Westwood	1	5	0	0	0	0	1	0
Weymouth	25	40	35	16	15	25	19	24
Whately	0	0	0	1	1	1	1	0
Whitman	8	1	10	4	7	4	4	8
Wilbraham	2	1	0	1	0	2	4	2
Williamsburg	0	0	1	1	1	0	0	0
Williamstown	0	1	0	1	0	0	0	1
Wilmington	8	5	6	6	5	4	7	8
Winchendon	2	1	3	5	5	6	4	4
Winchester	1	2	1	2	1	0	1	1
Windsor	0	0	0	0	0	0	1	0
Winthrop	7	4	11	7	5	6	6	6
Woburn	7	17	16	14	13	12	12	14
Worcester	84	77	86	99	81	103	105	141
Worthington	0	0	0	0	0	0	1	0
Wrentham	3	5	5	1	0	3	1	3
Yarmouth	9	7	8	7	8	10	12	10
Unknown	1	0	0	0	0	0	0	1
Total	**1,748**	**2,111**	**2,013**	**2,015**	**2,007**	**2,092**	**2,283**	**2,331**

Please note that 2021 to 2022 death data are preliminary and subject to updates. Case reviews of deaths are evaluated and updated on an ongoing basis. Many death certificates have yet to be assigned final cause of death codes. The information presented in this city/town table only includes confirmed cases. Data updated on 10/19/2023.

Table 2. Number of confirmed opioid-related overdose deaths for all intents by city/town of death occurrence, 2015-2022. From 2021 to 2022, additional cases are still being confirmed by the Office of the Chief Medical Examiner. This report will be updated quarterly, and all new confirmed cases will be included in the table below with previously confirmed cases.

City/Town of Residence	Year of Death							
	2015	2016	2017	2018	2019	2020	2021	2022
Abington	6	2	3	5	4	1	4	2
Acton	2	3	0	1	0	3	3	2
Acushnet	4	2	4	0	0	1	0	3

Adams	3	1	0	4	1	2	2	3
Agawam	2	0	4	8	4	8	4	5
Alford	0	0	0	0	0	0	0	0
Amesbury	6	1	4	6	2	2	7	4
Amherst	1	3	1	2	1	0	0	2
Andover	2	3	2	2	0	0	5	2
Aquinnah	0	0	0	0	0	0	0	0
Arlington	4	2	1	2	7	2	2	7
Ashburnham	1	1	0	0	2	1	0	2
Ashby	0	0	1	0	1	0	1	0
Ashfield	0	0	0	1	0	0	0	0
Ashland	1	2	2	0	1	1	0	1
Athol	2	4	5	10	7	14	13	10
Attleboro	17	23	40	17	22	22	29	26
Auburn	1	0	1	1	0	2	3	6
Avon	0	1	1	2	1	1	1	1
Ayer	1	10	3	2	4	2	2	4
Barnstable	26	30	23	35	31	30	32	34
Barre	0	0	0	1	2	0	0	0
Becket	1	0	0	0	1	0	0	0
Bedford	1	2	2	1	4	2	3	1
Belchertown	0	1	3	6	3	3	0	1
Bellingham	2	1	1	2	2	0	4	4
Belmont	1	1	2	1	1	2	2	0
Berkley	0	2	2	1	1	0	3	0
Berlin	1	0	0	0	0	1	2	2
Bernardston	0	0	0	0	0	1	0	0
Beverly	14	28	18	12	17	16	8	13
Billerica	8	9	8	8	3	5	7	4
Blackstone	1	3	1	0	2	1	1	2
Blandford	0	0	0	0	0	0	0	0
Bolton	0	1	1	0	0	1	0	0
Boston	232	265	284	247	258	311	330	353
Bourne	4	6	1	4	4	6	2	9
Boxborough	0	0	1	0	0	1	1	0
Boxford	0	0	0	0	1	0	0	0
Boylston	1	0	0	0	0	0	1	0
Braintree	7	7	10	6	9	8	7	6
Brewster	1	1	1	0	3	3	1	1
Bridgewater	4	2	5	1	3	5	3	4
Brimfield	0	0	0	2	2	2	0	2
Brockton	90	70	74	51	63	80	84	85
Brookfield	0	0	2	1	0	1	0	0
Brookline	3	2	4	3	2	2	1	4
Buckland	0	0	0	0	0	0	1	0
Burlington	9	13	16	20	15	8	22	16
Cambridge	24	41	22	19	22	13	39	45
Canton	3	4	4	1	0	1	0	1
Carlisle	0	0	0	0	1	0	1	0

Carver	5	1	3	1	5	1	0	4
Charlemont	0	0	0	0	0	0	0	0
Charlton	0	1	3	0	0	2	0	2
Chatham	1	0	0	0	0	0	0	1
Chelmsford	3	3	5	3	4	2	7	6
Chelsea	11	10	9	13	10	9	11	20
Cheshire	0	0	0	3	0	1	3	1
Chester	0	0	0	0	0	1	1	1
Chesterfield	0	0	0	0	0	1	1	0
Chicopee	8	16	10	17	21	22	14	23
Chilmark	0	0	0	0	0	0	0	0
Clarksburg	0	0	1	0	1	1	0	0
Clinton	8	6	2	6	6	6	2	3
Cohasset	0	1	0	0	0	1	0	0
Colrain	0	0	0	0	0	0	0	0
Concord	3	2	3	4	2	1	5	3
Conway	0	0	0	0	0	1	0	0
Cummington	0	0	0	0	0	0	0	1
Dalton	0	1	0	0	0	0	2	0
Danvers	7	3	3	4	3	6	3	9
Dartmouth	3	7	3	4	5	6	6	2
Dedham	2	4	1	6	2	3	3	4
Deerfield	0	0	0	0	1	0	1	1
Dennis	3	4	2	2	2	6	6	3
Dighton	0	2	1	1	0	0	1	0
Douglas	2	2	1	1	2	0	0	1
Dover	0	0	0	0	1	0	0	0
Dracut	7	4	3	7	9	4	4	5
Dudley	1	1	1	3	0	0	1	0
Dunstable	0	0	0	0	1	0	1	0
Duxbury	0	2	0	0	0	1	1	1
East Bridgewater	0	1	1	3	0	1	1	2
East Brookfield	0	0	0	0	0	0	0	0
East Longmeadow	1	1	2	0	2	2	0	0
Eastham	1	0	1	0	1	1	2	0
Easthampton	1	2	2	4	1	4	4	4
Easton	4	3	3	4	0	2	5	2
Edgartown	0	0	0	1	0	0	0	0
Egremont	0	0	0	0	0	0	0	0
Erving	0	0	0	0	0	0	2	0
Essex	0	0	0	0	0	0	0	0
Everett	43	40	34	28	27	25	29	29
Fairhaven	5	5	4	3	8	5	5	5
Fall River	43	85	64	67	71	72	83	82
Falmouth	17	18	21	9	17	16	18	15
Fitchburg	10	11	16	11	7	11	12	14
Florida	0	0	0	0	0	0	0	0
Foxborough	1	5	1	3	3	3	6	1
Framingham	17	20	14	25	20	24	20	23

Franklin	1	5	1	4	2	1	1	3
Freetown	3	0	3	1	2	0	1	0
Gardner	7	10	9	23	6	9	12	13
Georgetown	1	1	1	1	1	0	0	0
Gill	0	0	0	0	0	0	0	0
Gloucester	11	9	17	16	15	10	20	9
Goshen	0	0	0	0	0	0	0	0
Gosnold	0	0	0	0	0	0	0	0
Grafton	2	0	0	2	3	0	1	2
Granby	0	1	0	0	2	0	0	2
Granville	0	0	0	0	0	0	0	0
Great Barrington	1	1	0	0	0	2	0	2
Greenfield	10	5	4	11	9	8	17	10
Groton	1	0	1	0	0	0	0	0
Groveland	0	1	1	0	2	0	1	0
Hadley	0	2	0	1	1	1	4	0
Halifax	0	0	1	2	1	2	0	1
Hamilton	0	1	0	1	3	0	0	0
Hampden	0	0	0	1	0	0	3	0
Hancock	0	1	0	0	0	0	0	0
Hanover	0	1	1	0	0	0	0	0
Hanson	4	0	0	2	1	1	1	2
Hardwick	2	1	0	0	2	3	0	1
Harvard	0	0	0	1	0	0	1	1
Harwich	3	1	1	1	2	0	0	2
Hatfield	1	0	1	0	1	0	0	0
Haverhill	25	38	25	24	26	22	31	23
Hawley	0	0	0	0	0	0	0	0
Heath	0	0	0	0	0	0	0	0
Hingham	0	1	0	0	1	1	2	2
Hinsdale	0	0	0	0	1	2	0	0
Holbrook	3	1	5	4	2	0	3	2
Holden	1	2	0	1	2	1	1	1
Holland	0	0	0	0	0	1	0	0
Holliston	1	1	0	1	1	0	2	0
Holyoke	13	13	16	29	25	40	32	32
Hopedale	0	2	0	1	0	1	0	0
Hopkinton	3	1	3	3	1	1	0	1
Hubbardston	0	0	0	1	0	0	0	0
Hudson	4	2	2	3	5	3	1	0
Hull	4	3	6	3	3	7	5	2
Huntington	0	0	0	1	0	2	0	3
Ipswich	3	2	4	4	2	1	3	1
Kingston	1	0	5	2	2	0	1	3
Lakeville	0	1	1	1	0	0	3	1
Lancaster	1	1	3	0	1	1	1	0
Lanesborough	1	1	0	1	0	0	2	0
Lawrence	45	60	50	62	64	43	52	71
Lee	1	0	2	1	0	2	2	0

Leicester	1	1	2	2	1	2	2	2
Lenox	0	0	1	1	0	1	1	0
Leominster	22	31	28	24	34	22	17	27
Leverett	0	0	1	0	0	0	0	0
Lexington	4	0	0	1	1	0	0	3
Leyden	0	0	0	0	0	0	0	0
Lincoln	0	0	0	0	0	1	1	0
Littleton	0	0	1	0	3	1	2	1
Longmeadow	0	3	0	2	1	0	2	0
Lowell	69	79	60	74	59	51	65	58
Ludlow	0	3	6	3	2	1	5	4
Lunenburg	0	0	0	1	1	2	1	1
Lynn	43	45	65	48	47	28	42	54
Lynnfield	3	0	3	2	1	0	1	2
Malden	12	8	9	14	9	19	17	22
Manchester	0	1	0	0	1	0	1	0
Mansfield	1	6	4	2	3	2	2	3
Marblehead	0	2	3	1	0	0	2	0
Marion	0	1	1	1	1	0	0	1
Marlborough	8	6	3	22	14	19	11	13
Marshfield	0	2	6	5	3	4	1	3
Mashpee	2	4	1	0	1	5	1	3
Mattapoisett	0	2	1	4	2	1	1	0
Maynard	1	0	1	1	1	2	1	3
Medfield	0	1	0	1	0	0	0	0
Medford	14	15	15	6	8	4	5	11
Medway	1	1	0	2	0	0	0	1
Melrose	18	21	19	19	9	16	19	16
Mendon	1	0	0	1	1	1	0	2
Merrimac	1	0	1	0	1	0	1	0
Methuen	12	14	14	11	13	18	16	11
Middleborough	6	3	5	4	7	7	4	4
Middlefield	0	0	0	0	0	1	1	0
Middleton	1	0	1	1	1	0	0	1
Milford	10	21	14	16	9	8	11	11
Millbury	1	3	2	3	4	3	2	0
Millis	0	3	1	1	0	1	1	2
Millville	0	0	0	0	0	0	0	0
Milton	6	6	2	5	1	3	6	3
Monroe	0	0	0	0	0	0	0	0
Monson	0	0	1	1	1	2	1	0
Montague	2	3	0	1	3	2	4	7
Monterey	0	0	0	0	0	0	0	0
Montgomery	0	0	0	0	0	0	0	0
Mount Washington	0	0	0	0	0	0	0	0
Nahant	0	0	1	0	0	0	2	1
Nantucket	1	2	1	2	1	1	4	2
Natick	2	2	7	1	5	3	4	2
Needham	1	2	1	0	1	2	5	3

New Ashford	0	0	0	0	0	0	0	0
New Bedford	66	63	56	63	88	72	81	92
New Braintree	0	0	0	0	0	0	0	0
New Marlborough	0	0	0	0	0	0	1	0
New Salem	2	0	0	0	0	0	0	0
Newbury	1	0	1	0	0	1	1	0
Newburyport	4	11	7	7	8	1	3	6
Newton	10	15	11	3	10	5	7	13
Norfolk	1	0	0	1	0	0	1	0
North Adams	6	4	5	4	7	10	11	8
North Andover	1	1	1	1	3	3	3	2
North Attleboro	6	4	4	3	6	4	5	9
North Brookfield	0	2	1	0	1	0	1	0
North Reading	0	1	3	1	0	3	2	2
Northampton	3	14	8	13	20	6	15	13
Northborough	0	1	0	0	2	2	2	2
Northbridge	1	1	3	3	3	2	2	1
Northfield	0	0	0	1	0	1	0	0
Norton	1	1	3	4	1	2	6	1
Norwell	3	1	1	1	0	2	0	0
Norwood	17	14	17	12	13	7	6	4
Oak Bluffs	2	1	1	1	2	2	2	5
Oakham	0	0	0	0	0	0	1	0
Orange	1	1	1	2	2	1	6	3
Orleans	0	1	0	3	1	2	0	0
Otis	0	1	0	0	0	0	0	1
Oxford	1	3	1	0	4	6	2	3
Palmer	2	5	6	7	9	9	8	6
Paxton	0	0	0	0	1	2	0	1
Peabody	13	11	12	9	10	17	11	11
Pelham	0	0	0	0	0	0	0	0
Pembroke	2	5	1	0	1	1	2	2
Pepperell	2	2	1	2	2	2	0	0
Peru	0	0	1	0	0	0	0	0
Petersham	0	0	0	0	0	0	0	0
Phillipston	0	0	0	0	0	0	0	1
Pittsfield	19	22	14	21	32	34	35	38
Plainfield	0	0	0	0	0	0	0	0
Plainville	2	1	2	0	2	5	2	1
Plymouth	21	26	23	15	24	20	19	14
Plympton	1	2	1	0	0	0	1	0
Princeton	1	1	0	1	0	0	0	0
Provincetown	1	0	1	0	1	0	0	0
Quincy	43	36	37	36	43	38	35	27
Randolph	4	7	3	4	6	3	7	11
Raynham	1	0	2	1	2	4	4	2
Reading	2	4	4	1	2	0	2	3
Rehoboth	1	0	0	2	3	1	0	2
Revere	8	17	12	9	16	19	21	21

Richmond	0	0	0	0	0	0	0	0
Rochester	0	0	0	0	0	0	0	2
Rockland	3	10	11	9	0	8	1	7
Rockport	2	0	1	3	1	3	0	1
Rowe	0	0	0	0	0	0	0	1
Rowley	0	0	2	1	1	0	0	1
Royalston	0	0	0	0	0	1	0	0
Russell	0	0	0	0	0	0	0	0
Rutland	0	0	0	1	1	1	3	2
Salem	27	29	41	37	28	44	50	38
Salisbury	7	8	10	6	4	3	3	1
Sandisfield	0	0	0	0	0	1	0	0
Sandwich	2	4	1	4	2	5	4	3
Saugus	2	8	4	11	6	8	10	6
Savoy	0	0	0	0	0	0	0	0
Scituate	4	2	0	1	1	0	2	2
Seekonk	1	1	1	1	3	6	1	2
Sharon	0	1	1	1	1	0	0	0
Sheffield	0	0	0	1	0	0	0	0
Shelburne	0	0	0	0	1	0	0	0
Sherborn	1	1	1	1	0	0	0	0
Shirley	0	0	1	0	0	1	0	0
Shrewsbury	1	3	8	5	2	5	7	3
Shutesbury	0	0	0	0	0	1	0	0
Somerset	1	1	2	2	0	2	4	2
Somerville	15	19	12	8	15	12	12	18
South Hadley	1	2	1	1	4	6	1	0
Southampton	0	1	0	0	0	0	0	0
Southborough	0	1	0	0	1	1	1	1
Southbridge	4	14	7	9	13	12	12	11
Southwick	0	0	2	3	1	4	1	4
Spencer	7	2	1	1	2	2	4	2
Springfield	65	75	57	112	103	119	113	122
Sterling	0	1	0	1	2	1	0	3
Stockbridge	0	0	2	1	0	0	0	0
Stoneham	5	6	2	4	2	3	6	3
Stoughton	4	7	5	7	2	11	5	6
Stow	0	0	0	0	1	1	0	0
Sturbridge	1	1	3	0	0	1	1	1
Sudbury	0	0	0	0	1	0	0	1
Sunderland	0	1	1	1	0	0	0	1
Sutton	0	0	0	2	1	1	1	0
Swampscott	1	3	1	1	4	0	0	2
Swansea	0	0	3	2	3	2	5	2
Taunton	18	44	31	37	27	23	42	28
Templeton	1	3	0	1	1	1	1	3
Tewksbury	6	12	10	5	3	11	5	7
Tisbury	2	1	1	2	1	0	0	1
Tolland	0	0	0	1	0	0	0	0

Topsfield	0	1	0	0	0	1	0	0
Townsend	0	0	4	2	2	1	0	1
Truro	0	1	0	0	0	0	0	0
Tyngsborough	2	1	2	4	1	0	2	1
Tyringham	1	0	0	0	0	0	0	0
Upton	0	1	0	1	1	0	0	1
Uxbridge	1	0	0	0	0	4	1	4
Wakefield	0	8	6	5	1	2	9	4
Wales	0	0	0	1	1	1	0	0
Walpole	2	4	4	3	3	1	2	1
Waltham	6	12	11	3	7	4	9	14
Ware	3	10	5	4	2	3	8	3
Wareham	13	17	20	18	16	22	22	23
Warren	0	0	0	1	2	2	3	2
Warwick	0	0	0	0	0	0	0	0
Washington	0	0	0	0	0	0	0	0
Watertown	3	4	6	1	3	5	4	3
Wayland	0	1	1	1	0	0	1	0
Webster	6	5	9	9	11	7	4	10
Wellesley	1	0	0	0	1	1	1	0
Wellfleet	0	0	1	0	0	0	0	1
Wendell	0	0	0	0	0	0	0	0
Wenham	1	0	1	2	0	0	0	0
West Boylston	0	2	2	1	2	0	1	1
West Bridgewater	0	1	1	2	0	1	0	1
West Brookfield	0	0	0	0	0	0	1	0
West Newbury	0	0	0	0	0	0	0	0
West Springfield	8	4	4	12	7	13	20	14
West Stockbridge	0	0	0	1	0	0	0	0
West Tisbury	0	1	0	0	0	1	0	0
Westborough	2	0	2	1	2	3	0	0
Westfield	4	16	8	16	15	6	14	11
Westford	0	1	3	0	1	5	2	1
Westhampton	0	0	0	0	0	0	0	2
Westminster	1	0	1	0	0	1	0	2
Weston	0	1	1	0	0	0	0	0
Westport	0	1	5	3	2	3	1	4
Westwood	1	2	0	0	0	0	0	0
Weymouth	35	57	57	33	24	41	29	42
Whately	0	0	0	0	0	1	1	0
Whitman	3	1	1	1	2	3	3	3
Wilbraham	1	0	0	0	0	0	1	0
Williamsburg	0	0	0	1	1	0	0	0
Williamstown	0	0	0	1	0	0	0	1
Wilmington	4	2	4	2	0	1	4	4
Winchendon	0	2	1	3	3	6	0	4
Winchester	9	10	7	12	6	4	4	4
Windsor	0	0	0	0	0	0	1	0
Winthrop	2	1	9	3	1	2	5	2

Woburn	1	9	10	8	6	13	14	10
Worcester	122	112	123	135	144	132	123	168
Worthington	0	0	0	0	0	0	0	0
Wrentham	3	1	2	1	1	0	0	2
Yarmouth	3	6	8	4	6	5	8	3
Out of Massachusetts	52	90	82	63	73	88	106	100
Total	**1,809**	**2,193**	**2,083**	**2,082**	**2,088**	**2,174**	**2,360**	**2,441**

Please note that 2021 -2022 death data are preliminary and subject to updates. Case reviews of deaths are evaluated and updated on an ongoing basis. Many death certificates have yet to be assigned final cause of death codes. The information presented in this city/town table only includes confirmed cases. Data updated on 10/19/2023.

Technical Notes

- Opioids include heroin, illicitly manufactured fentanyl, opioid-based prescription painkillers, and other unspecified opioids.
- Beginning with the August 2019 report, DPH updated the case definition used to identify opioid-related overdose deaths to match the CDC's case definition. The following International Classification of Disease (ICD-10) codes for mortality were selected from the underlying cause of death field to identify poisonings/overdoses: X40-X44, X60-X64, X85, and Y10-Y14. All multiple cause of death fields were then used to identify an opioid-related overdose death: T40.0, T40.1, T40.2, T40.3, T40.4, and T40.6.
- This report tracks all opioid-related overdoses due to difficulties in reporting heroin-associated overdoses separately. Many deaths related to heroin are not specifically coded as such due to the fast metabolism of heroin into morphine.
- To maintain consistency with NCHS reporting, DPH does not include the ICD-10 code F11.1, which may include opioid-related overdose deaths.
- Beginning with the May 2017 report, DPH started reporting opioid-related overdose deaths for all intents, which includes unintentional/undetermined and suicide.

Source

- Massachusetts Registry of Vital Records and Statistics, MDPH

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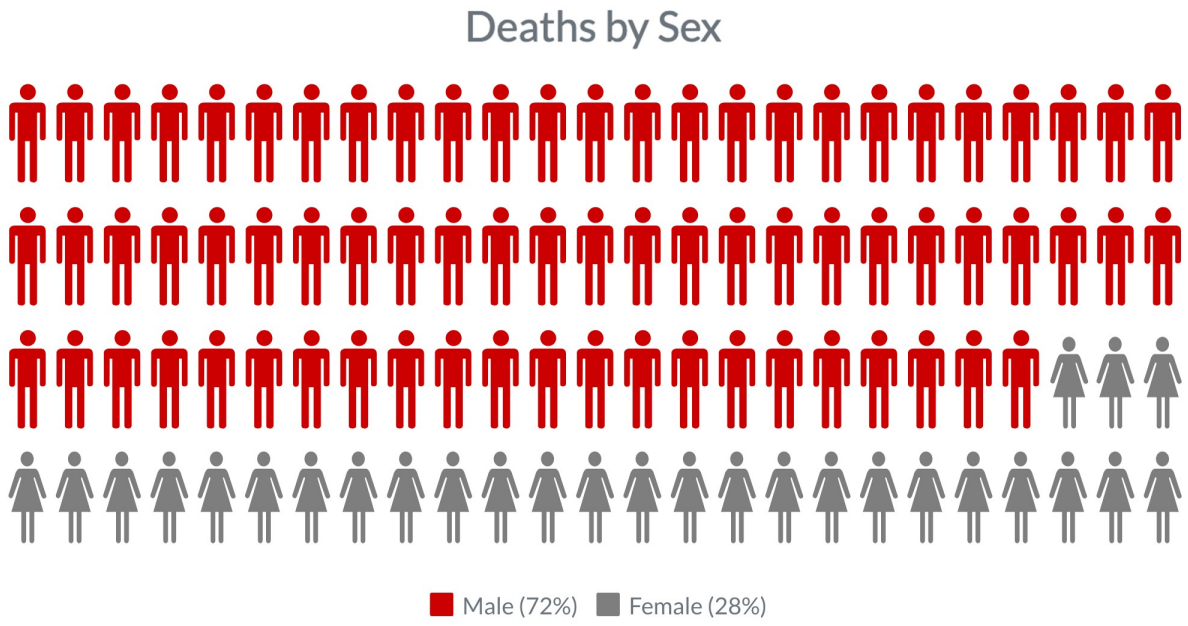
Opioid-Related Overdose Deaths, All Intents, MA Residents – Demographic Data Highlights

Department of Public Health | POSTED: DECEMBER 2023

This data brief highlights demographic data from confirmed opioid-related overdose deaths for all intents, from January 2023 through September 2023.

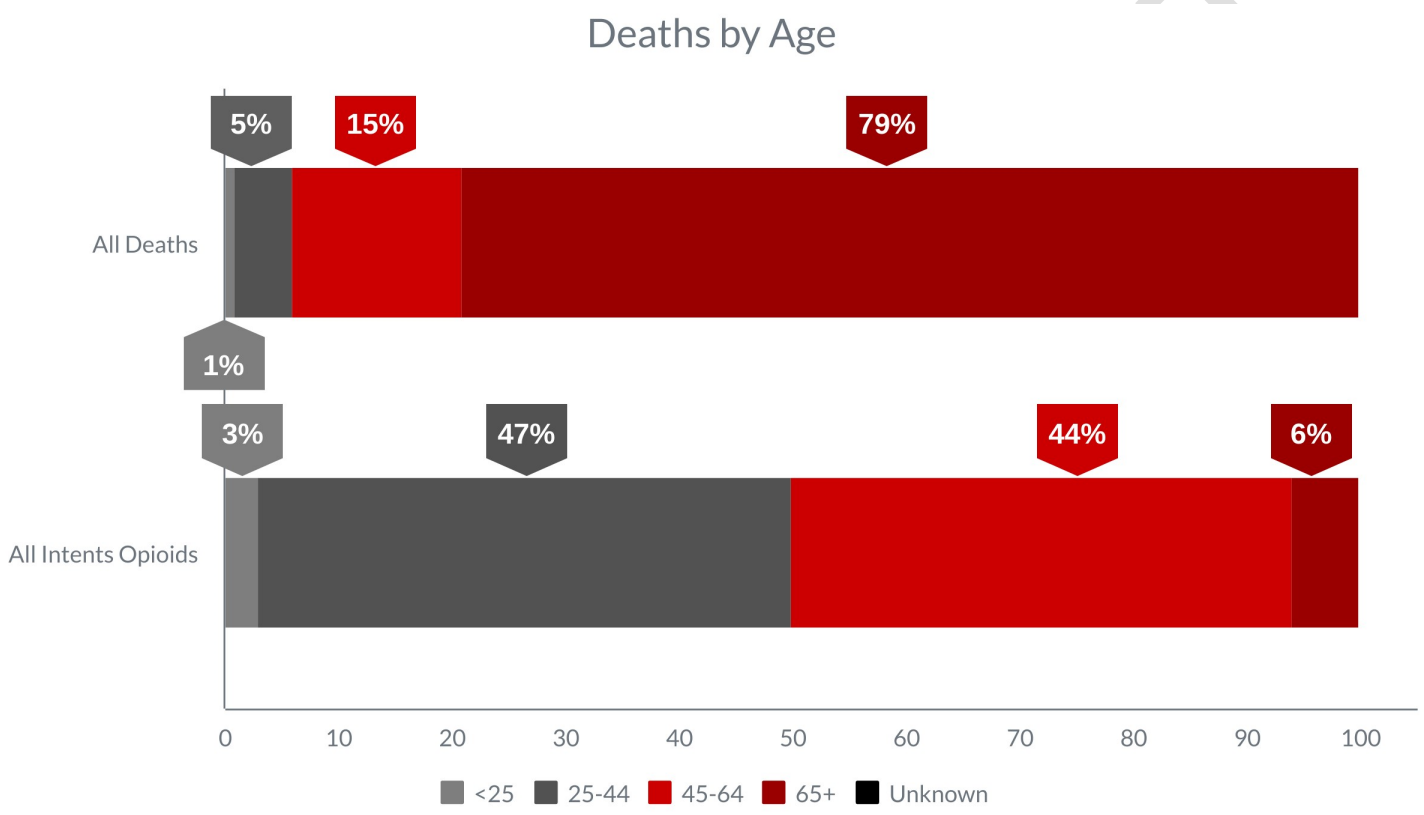
Confirmed Opioid-Related Overdose Deaths, All Intents, by Sex: January 2023-September 2023

Male	939
Female	370
Total	**1,309**



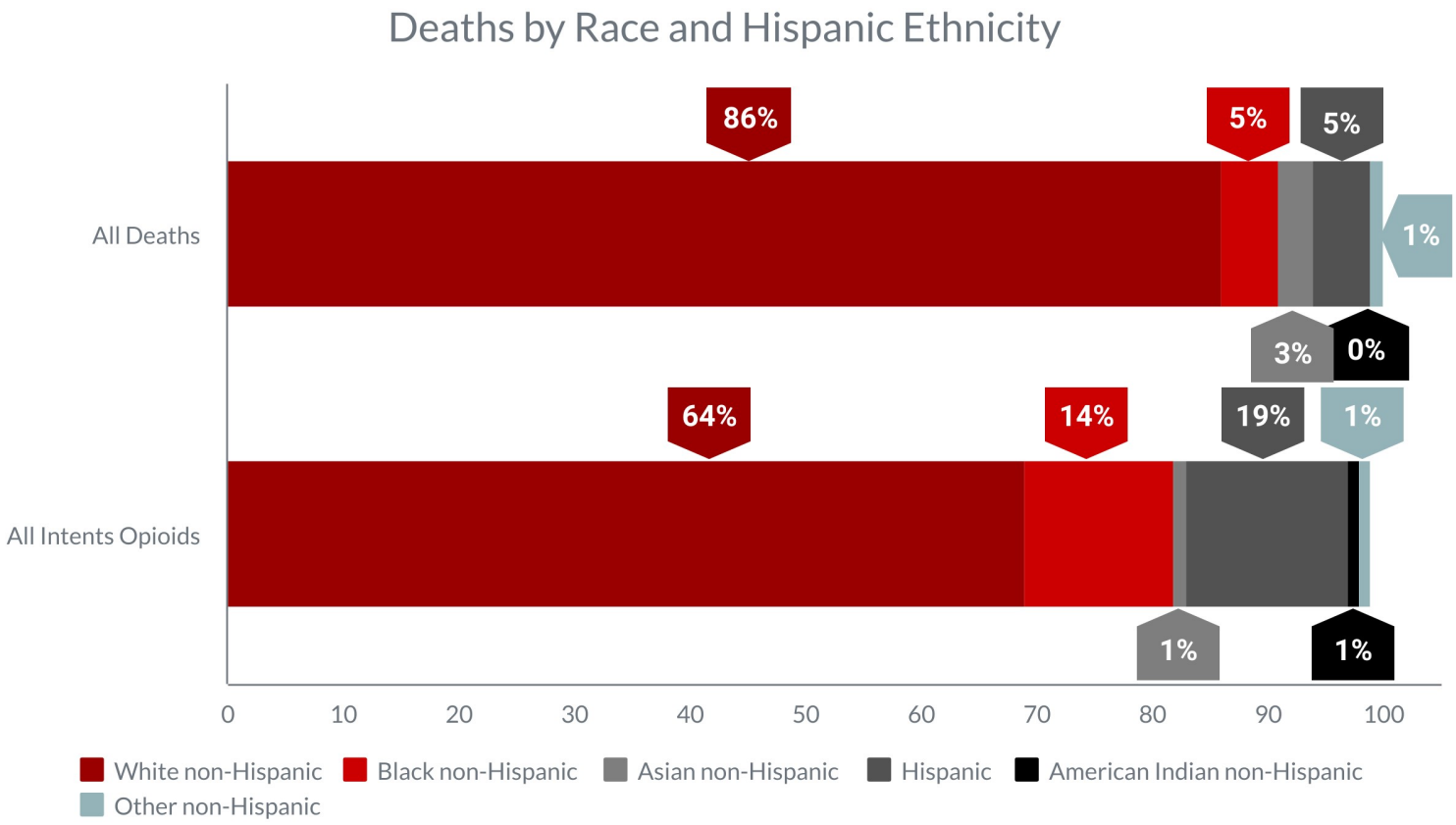
Confirmed Opioid-Related Overdose Deaths, All Intents Compared to All Deaths by Age: January 2023-September 2023

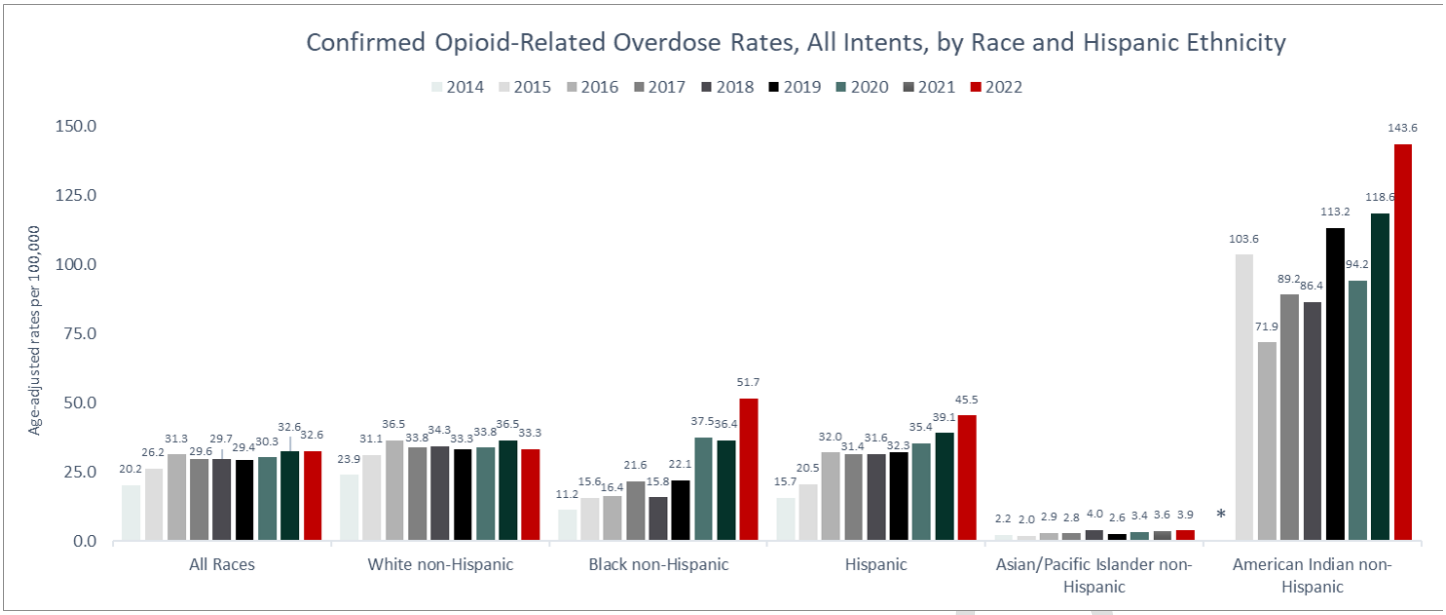
	<15	15-24	25-34	35-44	45-54	55-64	65+	Unknown	Total
All Deaths	247	284	766	1,296	2,085	4,778	35,541	2	44,999
Confirmed Opioid-Related Overdose Deaths, All Intents	2	39	257	362	302	266	80	1	1,309

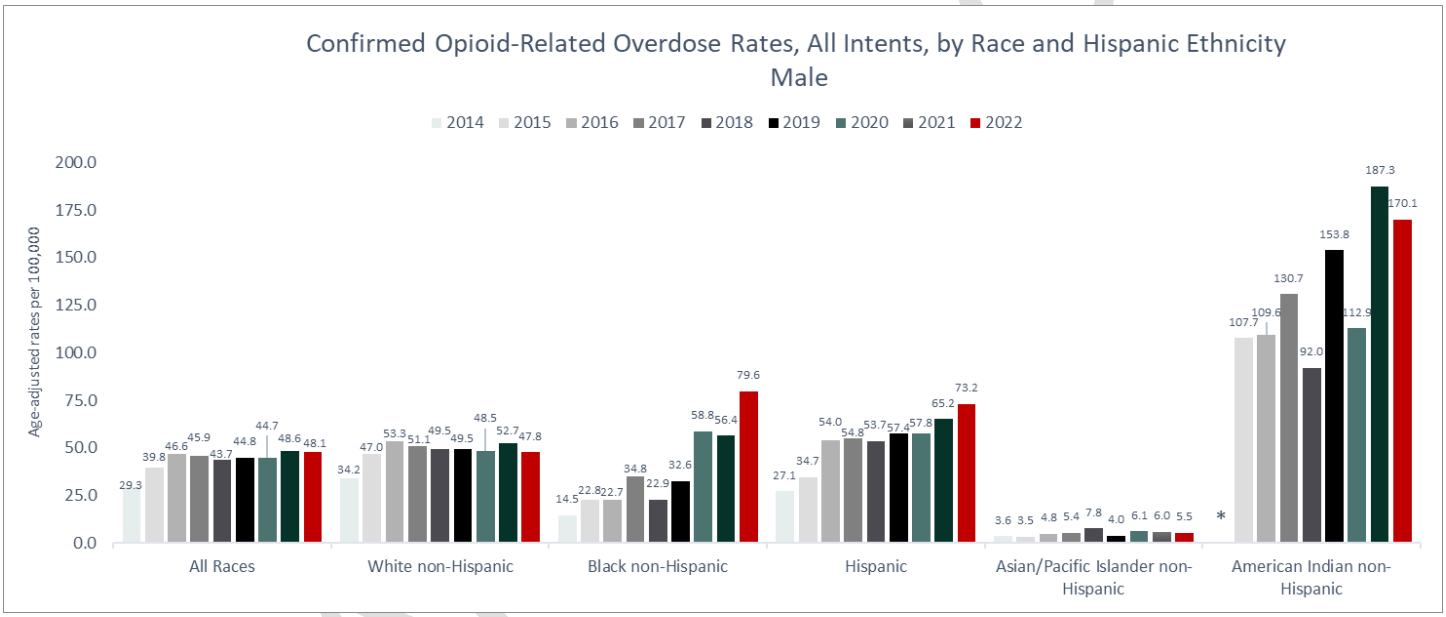


Confirmed Opioid-Related Overdose Deaths, All Intents Compared to All Deaths by Race and Hispanic Ethnicity: January 2023-September 2023

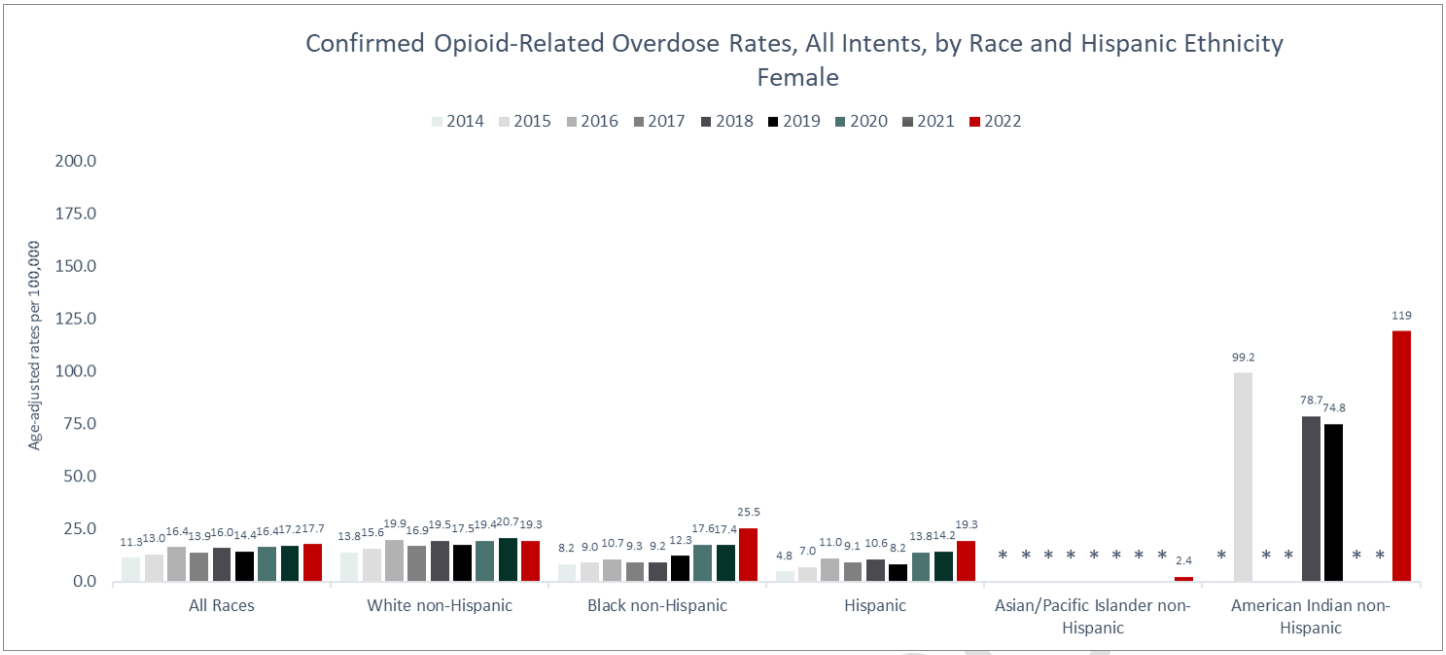
	White non-Hispanic	Black non-Hispanic	Asian non-Hispanic	Hispanic	American Indian non-Hispanic	Other non-Hispanic	Total
All Deaths	38,497	2,524	1,227	2,316	76	301	**44,999**
Confirmed Opioid-Related Overdose Deaths, All Intents	843	178	14	245	7	14	**1,309**







*Rate calculations based on death counts less than 5 are excluded due to rate instability.



Technical Notes

- Opioids include heroin, illicitly manufactured fentanyl, opioid-based prescription painkillers, and other unspecified opioids.
- 2021 - 2022 death data are preliminary and subject to updates. Case reviews of deaths are evaluated and updated on an ongoing basis. Many deaths have yet to be assigned final cause of death codes. The information presented in this report only includes confirmed cases. Data updated on 10/19/2023.
- Beginning with the May 2017 report, DPH started reporting opioid-related overdose deaths for all intents, which includes unintentional/undetermined and suicide.
- Beginning with the August 2019 report, DPH updated the case definition used to identify opioid-related overdose deaths to match the CDC's case definition. The following International Classification of Disease (ICD-10) codes for mortality were selected from the underlying cause of death field to identify poisonings/overdoses: X40-X44, X60-X64, X85, and Y10-Y14. All multiple cause of death fields were then used to identify an opioid-related overdose death: T40.0, T40.1, T40.2, T40.3, T40.4, and T40.6.

Sources

- Massachusetts Registry of Vital Records and Statistics, MDPH
- *Population 2011-2019:* Population Estimates 2011-2019, version 2020, Massachusetts Department of Public Health, Bureau of Environmental Health. Version 2020 years 2018-2019 apply updates from U.S. Census Bureau's County Population by Characteristics, vintage 2020; all previous years apply updates from U.S. Census Bureau's County Population by Characteristics, vintage 2019 or earlier. These estimates were developed by the University of Massachusetts Donahue Institute (UMDI) in partnership with the Massachusetts Department of Public Health, Bureau of Environmental Health.
- *Population 2020-2022:* UMDI Interim 2020 Population Estimates by Age, Sex, Race, and Municipality, UMass Donahue Institute Population Estimates Program, March 1, 2022.

MA Opioid-Related EMS Incidents 2018-Q3 2023

rtment of Public Health POSTED: DECEMBER 2023

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 count opioid-related incidents more accurately. 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. Beginning with the August 2017 report, incidents are only among people ages 11 and above. This report documents all opioid-related incidents in Massachusetts, defined as 911 calls in which opioids are involved; not all incidents are clinical overdoses and not all are nonfatal. The MATRIS section also provides additional information on five severity categories: dead on arrival (of opioid overdose), acute opioid overdose, opioid intoxicated, opioid withdrawal, and other opioid-related incident. All opioid-related incidents are sorted into one of the five categories as determined by the patient's listed complaints, the EMS provider's impressions, the narrative report details of the incident and treatments, the presence of naloxone administration and the patient's response to it, and the patient's disposition (their treatment and transport status). Lastly, this report applies the Massachusetts State Office of Rural Health's definition to group communities based on their population levels and proximity to urban areas. Towns classified as rural level 1 and rural level 2 are all rural communities, but towns in level 2 are less densely populated and more isolated from urban core areas.

Results

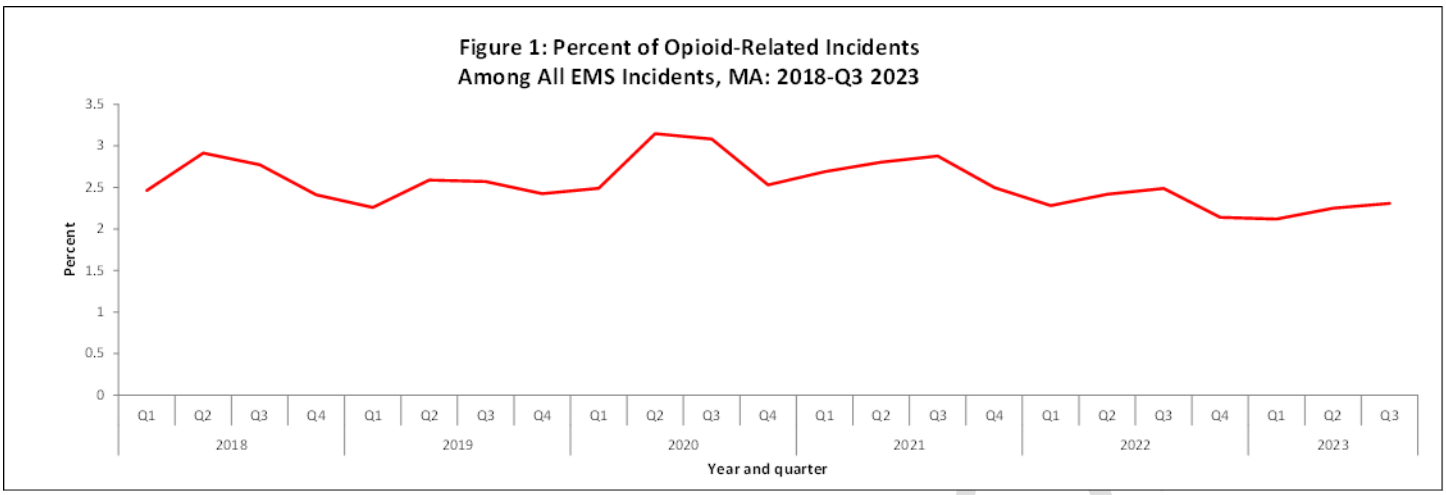
From January through September 2023, the greatest number of suspected opioid-related incidents treated by EMS were among males aged 35-44, accounting for 20% of opioid-related incidents with a known age and sex (Table 1).

Table 1: All Suspected Opioid-Related Incidents by Sex and Age: January- September 2023

	11-14	15-24	25-34	35-44	45-54	55-64	65+	Total
Male	(1-4)	526	2,257	2,663	1,681	1,282	626	9,035±
Female	(1-4)	232	979	1,313	786	564	359	4,233±
Total	5	758	3,236	3,976	2,467	1,846	985	13,268±

(1-4) = value is suppressed because it is between 1 and 4; ±Total of non-suppressed numbers

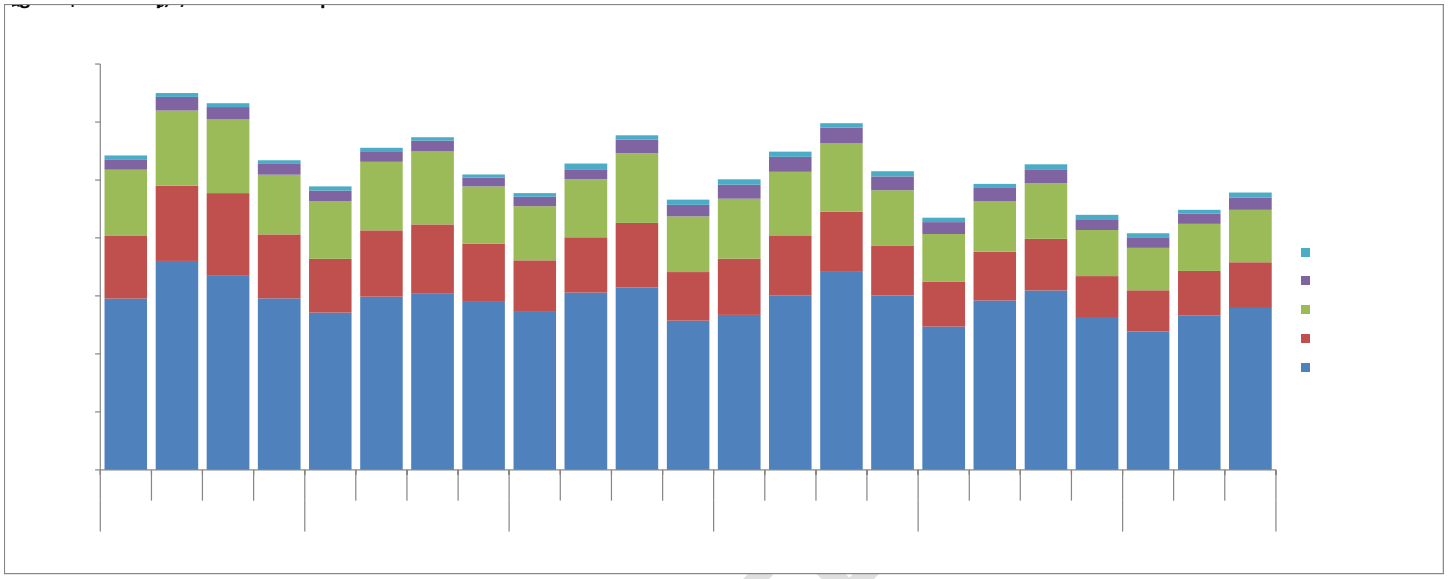
The percentage of all EMS incidents that were considered opioid-related (Figure 1) increased on average 0.6% per quarter between the first quarter of 2018 and the first quarter of 2021, and then decreased on average 2.8% per quarter from the second quarter of 2021 through the third quarter of 2023.



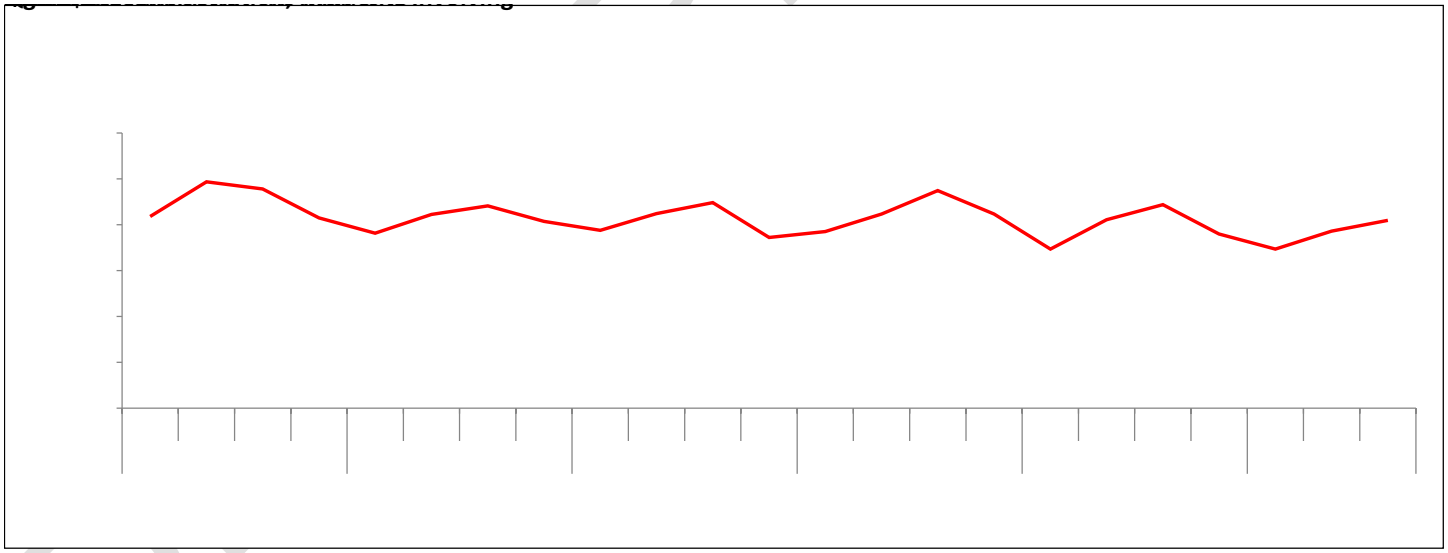
From January through September 2023, 58.7% of all opioid-related incidents were categorized as Acute Opioid Overdose Incidents, 18.3% were categorized as Other Opioid Related Incidents, 17.0% were categorized as Opioid Intoxicated Incidents, 4.3% were categorized as Opioid Withdrawal Incidents, and 1.6% were categorized as Dead on Arrival Incidents (Table 2). Between 2018 and the third quarter of 2023, the total number of acute opioid overdose incidents, opioid intoxicated incidents, and other opioid-related incidents have been slowly decreasing. Dead on arrival (of opioids) incidents marginally increased during this same time. The quarterly number of opioid withdrawal incidents fluctuated; between the first quarter of 2018 and the first quarter of 2020 the total number of incidents was decreasing but from the second quarter in 2020 through the first quarter of 2021 the total number of incidents began to climb before decreasing again between the second quarter of 2021 through the third quarter of 2023 (Figure 2).

Table 2: All Suspected Opioid-Related Incidents by Severity Category: January- September 2023

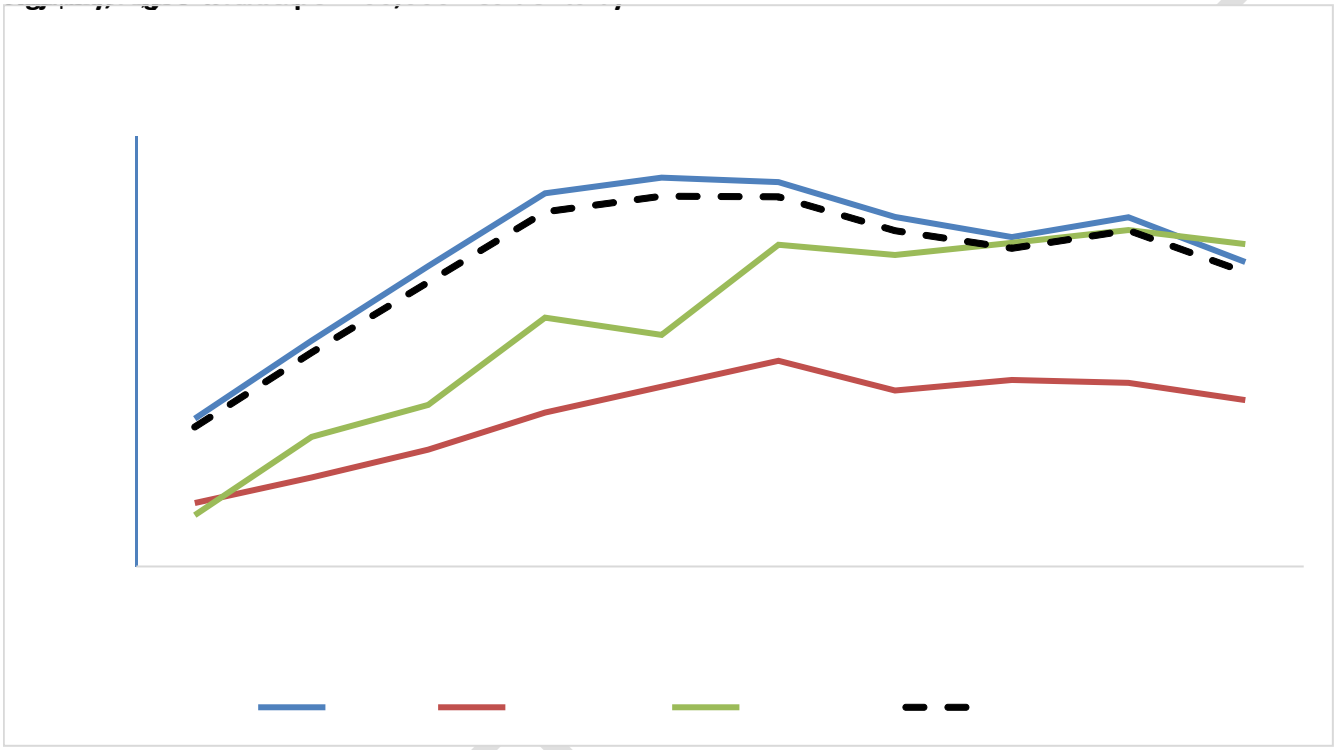
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
DOAs Incidents	27	22	20	19	23	21	35	30	23	**220**
DOAs %	2.0%	1.7%	1.4%	1.3%	1.6%	1.3%	2.0%	1.8%	1.6%	**1.6%**
Acute Overdose Incidents	791	735	863	839	828	992	1,013	967	811	**7,839**
Acute Overdose %	58.9%	57.8%	58.8%	58.5%	58.4%	60.8%	58.3%	59.0%	57.8%	**58.7%**
Opioid Intoxicated Incidents	209	222	278	233	257	283	295	269	225	**2,271**
Opioid Intoxicated %	15.6%	17.5%	19.0%	16.2%	18.1%	17.4%	17.0%	16.4%	16.0%	**17.0%**
Opioid Withdrawal Incidents	71	60	51	63	53	63	80	59	70	**570**
Opioid Withdrawal %	5.3%	4.7%	3.5%	4.4%	3.7%	3.9%	4.6%	3.6%	5.0%	**4.3%**
Other Opioid-Related Incidents	244	232	255	281	257	272	316	315	274	**2,446**
Other Opioid-Related %	18.2%	18.3%	17.4%	19.6%	18.1%	16.7%	18.2%	19.2%	19.5%	**18.3%**
Total	**1,342**	**1,271**	**1,467**	**1,435**	**1,418**	**1,631**	**1,739**	**1,640**	**1,403**	**13,346**



The number of all EMS incidents involving naloxone administration (Figure 3) decreased on average 6% per quarter between the first quarter of 2018 and the third quarter of 2023. Naloxone was administered in 97% of the acute opioid overdose incidents during the first three quarters of 2023.



Between 2013 and 2016, the age-adjusted rate of opioid-related incidents in all of Massachusetts and in urban communities increased on average 37% per year; opioid-related incidents then began leveling off in 2017 with an average annual 3.7% decrease through 2022. Rural level 1 communities followed a similar trend, although they increased slower (31% on average per year between 2013-2017) and decreased less (2.5% on average between 2018-2022). In rural level 2 communities, the age-adjusted opioid-related incident rate increased more than 62% on average each year between 2013 and 2016 and continued to increase 4.6% on average each year from 2017 through 2022. In 2022, rural level 2 communities had the highest age-adjusted opioid-related incident rate at 300 incidents per 100,000 residents (Figure 4).



All Suspected Opioid-Related Incidents by Town Where Incident Occurred in MA, 2021-Q3 2023

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-related 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 between 1 and 4. (1-4) indicates the cell value was between 1 and 4.

	2021					2022					2023			
City/Town	Q1	Q2	Q3	Q4	**Total**	Q1	Q2	Q3	Q4	**Total**	Q1	Q2	Q3	**Total**
Abington	7	9	8	10	34	11	9	8	5	33	9	(1-4)	*	17
Acton	(1-4)	(1-4)	5	(1-4)	12	(1-4)	(1-4)	(1-4)	(1-4)	10	(1-4)	(1-4)	(1-4)	5
Acushnet	7	5	5	7	24	(1-4)	9	(1-4)	(1-4)	17	7	(1-4)	(1-4)	13
Adams	10	*	6	(1-4)	25	*	(1-4)	7	9	26	7	9	7	23
Agawam	16	11	20	18	65	19	12	12	7	50	18	13	19	50
Alford	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Amesbury	7	(1-4)	*	6	19	9	*	(1-4)	9	27	(1-4)	*	6	14
Amherst	7	(1-4)	10	*	26	11	9	5	8	33	6	13	11	30
Andover	13	17	9	12	51	12	*	11	(1-4)	32	15	8	6	29
Aquinnah	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Arlington	10	15	13	12	50	12	8	8	8	36	5	5	8	18
Ashburnham	(1-4)	†	(1-4)	(1-4)	9	(1-4)	(1-4)	(1-4)	(1-4)	7	†	(1-4)	†	(1-4)
Ashby	†	(1-4)	(1-4)	(1-4)	6	(1-4)	(1-4)	†	(1-4)	7	†	(1-4)	(1-4)	(1-4)
Ashfield	†	†	(1-4)	†	(1-4)	(1-4)	†	†	†	(1-4)	†	†	†	†
Ashland	(1-4)	(1-4)	8	(1-4)	17	(1-4)	14	(1-4)	(1-4)	22	(1-4)	(1-4)	6	12
Athol	16	21	18	7	62	16	17	12	12	57	7	15	18	40
Attleboro	24	33	44	28	129	23	32	19	18	92	29	30	24	83
Auburn	(1-4)	*	18	13	47	19	6	7	8	40	15	10	10	35
Avon	7	(1-4)	6	(1-4)	18	(1-4)	(1-4)	(1-4)	(1-4)	10	(1-4)	†	†	(1-4)
Ayer	*	11	10	(1-4)	33	(1-4)	(1-4)	6	(1-4)	15	*	(1-4)	11	19
Barnstable	50	44	76	43	213	34	42	48	29	153	6	12	17	35
Barre	7	(1-4)	(1-4)	(1-4)	15	(1-4)	†	*	6	16	8	(1-4)	(1-4)	16
Becket	(1-4)	(1-4)	†	(1-4)	(1-4)	†	(1-4)	†	†	(1-4)	†	(1-4)	(1-4)	(1-4)
Bedford	(1-4)	7	(1-4)	8	20	(1-4)	6	(1-4)	(1-4)	18	(1-4)	(1-4)	9	15
Belchertown	(1-4)	(1-4)	6	(1-4)	15	(1-4)	8	7	(1-4)	21	(1-4)	(1-4)	6	13
Bellingham	5	5	5	12	27	(1-4)	5	(1-4)	(1-4)	11	8	*	(1-4)	18
Belmont	(1-4)	6	(1-4)	7	18	(1-4)	(1-4)	(1-4)	8	19	*	(1-4)	5	12
Berkley	(1-4)	(1-4)	†	(1-4)	8	†	(1-4)	(1-4)	†	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)
Berlin	†	(1-4)	(1-4)	(1-4)	9	(1-4)	(1-4)	(1-4)	(1-4)	7	(1-4)	†	(1-4)	(1-4)
Bernardston	†	(1-4)	†	†	(1-4)	(1-4)	†	†	†	(1-4)	(1-4)	†	(1-4)	(1-4)
Beverly	20	14	22	14	70	14	11	12	9	46	18	7	9	34
Billerica	14	12	9	23	58	10	8	13	12	43	14	10	8	32
Blackstone	(1-4)	5	(1-4)	5	15	(1-4)	(1-4)	(1-4)	(1-4)	9	(1-4)	(1-4)	(1-4)	7
Blandford	†	†	†	†	†	†	†	†	(1-4)	(1-4)	†	†	†	†
Bolton	(1-4)	†	†	(1-4)	(1-4)	(1-4)	†	(1-4)	†	(1-4)	†	†	†	†
Boston	849	914	1010	792	3565	593	674	778	626	2671	658	745	672	2075
Bourne	16	11	21	10	58	10	10	15	10	45	(1-4)	(1-4)	(1-4)	9
Boxborough	(1-4)	(1-4)	†	†	(1-4)	†	(1-4)	(1-4)	†	(1-4)	(1-4)	†	†	(1-4)
Boxford	†	(1-4)	†	†	(1-4)	†	(1-4)	(1-4)	†	(1-4)	†	(1-4)	(1-4)	(1-4)
Boylston	(1-4)	†	(1-4)	†	(1-4)	†	†	(1-4)	†	(1-4)	†	(1-4)	†	(1-4)
Braintree	20	17	25	19	81	20	19	15	12	66	16	18	15	49
Brewster	†	(1-4)	(1-4)	(1-4)	6	†	(1-4)	5	(1-4)	10	(1-4)	(1-4)	(1-4)	7

Bridgewater	12	7	15	11	45	6	13	(1-4)	*	27	12	10	18	40
Brimfield	(1-4)	†	(1-4)	(1-4)	6	(1-4)	†	†	(1-4)	(1-4)	*	6	(1-4)	15
Brockton	88	123	128	131	470	98	118	126	97	439	96	118	141	355
Brookfield	(1-4)	(1-4)	(1-4)	(1-4)	9	(1-4)	†	(1-4)	(1-4)	6	†	†	(1-4)	(1-4)
Brookline	8	12	10	7	37	7	10	8	19	44	13	10	13	36
Buckland	†	(1-4)	†	†	(1-4)	†	†	†	†	†	(1-4)	†	†	(1-4)
Burlington	9	(1-4)	(1-4)	5	19	8	(1-4)	9	*	25	*	11	(1-4)	19
Cambridge	137	112	112	108	469	130	130	166	153	579	80	122	111	313
Canton	7	7	11	10	35	*	(1-4)	7	7	23	6	7	5	18
Carlisle	†	(1-4)	†	†	(1-4)	(1-4)	(1-4)	†	(1-4)	(1-4)	(1-4)	†	†	(1-4)
Carver	9	6	14	12	41	(1-4)	5	5	(1-4)	14	(1-4)	†	(1-4)	5
Charlemont	†	†	(1-4)	†	(1-4)	(1-4)	†	(1-4)	†	(1-4)	†	(1-4)	†	(1-4)
Charlton	(1-4)	(1-4)	(1-4)	(1-4)	8	(1-4)	(1-4)	5	(1-4)	10	(1-4)	(1-4)	(1-4)	12
Chatham	(1-4)	(1-4)	(1-4)	(1-4)	7	(1-4)	(1-4)	(1-4)	(1-4)	11	(1-4)	(1-4)	(1-4)	(1-4)
Chelmsford	13	7	11	18	49	*	8	8	(1-4)	24	7	11	8	26
Chelsea	50	57	39	50	196	41	57	73	41	212	28	50	46	124
Cheshire	(1-4)	(1-4)	(1-4)	†	6	(1-4)	(1-4)	(1-4)	(1-4)	6	†	(1-4)	†	(1-4)
Chester	†	†	†	(1-4)	(1-4)	†	†	†	(1-4)	(1-4)	(1-4)	†	(1-4)	(1-4)
Chesterfield	(1-4)	(1-4)	†	(1-4)	(1-4)	†	†	(1-4)	†	(1-4)	(1-4)	(1-4)	†	(1-4)
Chicopee	64	93	77	82	316	83	76	101	75	335	73	64	82	219
Chilmark	†	(1-4)	†	†	(1-4)	†	†	†	†	†	†	†	†	†
Clarksburg	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Clinton	7	6	16	14	43	(1-4)	5	(1-4)	(1-4)	15	11	(1-4)	*	17
Cohasset	(1-4)	(1-4)	(1-4)	(1-4)	8	(1-4)	7	6	(1-4)	18	(1-4)	(1-4)	5	8
Colrain	†	†	†	†	†	†	(1-4)	†	†	(1-4)	†	†	†	†
Concord	(1-4)	(1-4)	(1-4)	5	11	6	(1-4)	6	(1-4)	20	†	(1-4)	(1-4)	(1-4)
Conway	†	†	†	(1-4)	(1-4)	(1-4)	†	(1-4)	†	(1-4)	†	†	†	†
Cummington	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Dalton	5	(1-4)	(1-4)	(1-4)	15	(1-4)	(1-4)	(1-4)	(1-4)	5	(1-4)	†	(1-4)	(1-4)
Danvers	44	39	39	33	155	24	32	30	20	106	23	24	15	62
Dartmouth	22	40	37	22	121	26	19	33	23	101	17	22	28	67
Dedham	14	15	9	9	47	8	9	6	16	39	10	10	13	33
Deerfield	(1-4)	(1-4)	†	†	(1-4)	(1-4)	(1-4)	†	†	6	†	(1-4)	(1-4)	(1-4)
Dennis	5	10	15	17	47	(1-4)	*	8	7	25	8	9	10	27
Dighton	(1-4)	†	†	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	9	(1-4)	†	†	(1-4)
Douglas	(1-4)	(1-4)	(1-4)	(1-4)	12	†	(1-4)	†	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)
Dover	†	†	(1-4)	†	(1-4)	†	†	†	†	†	†	(1-4)	(1-4)	(1-4)
Dracut	11	10	7	17	45	14	9	5	6	34	9	7	14	30
Dudley	(1-4)	(1-4)	11	6	23	11	*	9	(1-4)	33	5	6	6	17
Dunstable	†	†	†	†	†	†	(1-4)	(1-4)	†	(1-4)	(1-4)	†	†	(1-4)
Duxbury	(1-4)	5	(1-4)	5	16	(1-4)	(1-4)	†	†	(1-4)	(1-4)	(1-4)	(1-4)	5
East Bridgewater	5	(1-4)	6	(1-4)	16	(1-4)	(1-4)	(1-4)	9	14	*	5	(1-4)	13
East Brookfield	(1-4)	(1-4)	(1-4)	†	5	5	(1-4)	(1-4)	(1-4)	10	(1-4)	(1-4)	(1-4)	(1-4)
East Longmeadow	10	10	(1-4)	(1-4)	26	(1-4)	12	*	7	27	†	6	6	12

Eastham	(1-4)	(1-4)	(1-4)	(1-4)	9	(1-4)	(1-4)	(1-4)	(1-4)	8	†	(1-4)	†	(1-4)
Easthampton	14	9	11	10	44	7	12	10	8	37	(1-4)	*	11	23
Easton	11	11	10	10	42	*	9	6	(1-4)	24	8	(1-4)	*	17
Edgartown	†	(1-4)	†	(1-4)	(1-4)	(1-4)	†	(1-4)	(1-4)	7	(1-4)	†	(1-4)	(1-4)
Egremont	†	†	†	†	†	†	†	(1-4)	†	(1-4)	†	†	†	†
Erving	†	†	(1-4)	†	(1-4)	(1-4)	†	(1-4)	(1-4)	(1-4)	(1-4)	†	(1-4)	(1-4)
Essex	†	(1-4)	(1-4)	†	(1-4)	†	(1-4)	(1-4)	†	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)
Everett	42	37	54	32	165	22	55	32	43	152	43	34	33	110
Fairhaven	22	21	12	6	61	7	14	8	5	34	9	7	5	21
Fall River	178	223	253	195	849	142	208	225	179	754	144	157	175	476
Falmouth	32	14	37	25	108	19	20	31	25	95	29	24	20	73
Fitchburg	21	78	80	81	260	40	44	72	38	194	45	32	48	125
Florida	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Foxborough	13	12	12	7	44	7	6	6	5	24	5	9	6	20
Framingham	30	30	47	38	145	25	36	46	38	145	34	51	44	129
Franklin	14	12	9	8	43	*	8	(1-4)	9	28	*	15	(1-4)	27
Freetown	(1-4)	(1-4)	(1-4)	(1-4)	8	6	(1-4)	(1-4)	(1-4)	15	*	(1-4)	†	6
Gardner	32	20	26	44	122	19	32	32	21	104	19	27	17	63
Georgetown	(1-4)	(1-4)	†	(1-4)	8	(1-4)	(1-4)	(1-4)	(1-4)	8	(1-4)	(1-4)	6	9
Gill	†	†	(1-4)	†	(1-4)	†	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)
Gloucester	18	22	25	19	84	20	28	16	17	81	10	15	24	49
Goshen	†	(1-4)	(1-4)	(1-4)	(1-4)	†	(1-4)	†	†	(1-4)	†	†	†	†
Gosnold	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Grafton	8	6	(1-4)	(1-4)	19	(1-4)	(1-4)	8	5	19	(1-4)	(1-4)	7	11
Granby	(1-4)	(1-4)	6	(1-4)	13	(1-4)	(1-4)	(1-4)	(1-4)	10	(1-4)	(1-4)	5	10
Granville	(1-4)	†	†	†	(1-4)	†	(1-4)	†	(1-4)	(1-4)	†	(1-4)	†	(1-4)
Great Barrington	*	10	6	(1-4)	24	7	7	(1-4)	*	23	6	(1-4)	(1-4)	12
Greenfield	22	26	37	19	104	28	23	24	23	98	23	33	28	84
Groton	(1-4)	†	†	†	(1-4)	†	(1-4)	(1-4)	(1-4)	6	(1-4)	(1-4)	(1-4)	(1-4)
Groveland	(1-4)	†	(1-4)	(1-4)	9	(1-4)	(1-4)	(1-4)	(1-4)	7	(1-4)	†	(1-4)	(1-4)
Hadley	(1-4)	(1-4)	(1-4)	8	17	†	(1-4)	(1-4)	(1-4)	5	(1-4)	(1-4)	5	10
Halifax	(1-4)	(1-4)	9	(1-4)	18	(1-4)	(1-4)	(1-4)	(1-4)	12	(1-4)	(1-4)	5	11
Hamilton	(1-4)	(1-4)	(1-4)	(1-4)	5	(1-4)	(1-4)	†	(1-4)	5	(1-4)	(1-4)	(1-4)	6
Hampden	(1-4)	†	†	†	(1-4)	(1-4)	(1-4)	†	(1-4)	6	†	5	†	5
Hancock	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Hanover	(1-4)	(1-4)	(1-4)	†	6	7	(1-4)	(1-4)	(1-4)	17	(1-4)	5	(1-4)	9
Hanson	(1-4)	(1-4)	(1-4)	6	9	(1-4)	(1-4)	(1-4)	†	6	†	†	†	†
Hardwick	(1-4)	(1-4)	†	†	(1-4)	(1-4)	(1-4)	†	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)
Harvard	†	†	†	(1-4)	(1-4)	(1-4)	†	(1-4)	(1-4)	5	†	(1-4)	†	(1-4)
Harwich	*	9	10	(1-4)	29	6	(1-4)	*	6	20	(1-4)	(1-4)	5	12
Hatfield	(1-4)	†	†	(1-4)	(1-4)	(1-4)	†	†	(1-4)	(1-4)	†	†	(1-4)	(1-4)
Haverhill	69	70	77	61	277	55	56	54	54	219	44	54	61	159
Hawley	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Heath	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Hingham	(1-4)	(1-4)	(1-4)	6	15	(1-4)	(1-4)	5	(1-4)	15	(1-4)	(1-4)	(1-4)	8

Hinsdale	†	†	(1-4)	†	(1-4)	(1-4)	†	(1-4)	†	(1-4)	(1-4)	†	†	(1-4)
Holbrook	10	10	8	6	34	9	10	*	(1-4)	28	*	11	(1-4)	25
Holden	(1-4)	8	(1-4)	(1-4)	17	(1-4)	(1-4)	(1-4)	(1-4)	8	(1-4)	*	12	23
Holland	(1-4)	(1-4)	(1-4)	†	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	7	(1-4)	(1-4)	(1-4)	11
Holliston	(1-4)	(1-4)	(1-4)	(1-4)	9	(1-4)	(1-4)	(1-4)	(1-4)	6	(1-4)	(1-4)	(1-4)	(1-4)
Holyoke	88	143	109	96	436	91	128	108	37	364	30	56	176	262
Hopedale	(1-4)	(1-4)	†	†	(1-4)	†	(1-4)	(1-4)	(1-4)	5	(1-4)	(1-4)	(1-4)	10
Hopkinton	(1-4)	(1-4)	(1-4)	†	9	(1-4)	(1-4)	†	(1-4)	6	(1-4)	(1-4)	(1-4)	(1-4)
Hubbardston	(1-4)	(1-4)	(1-4)	†	5	(1-4)	(1-4)	(1-4)	(1-4)	8	(1-4)	(1-4)	(1-4)	6
Hudson	14	9	*	(1-4)	30	(1-4)	8	*	12	28	(1-4)	7	*	16
Hull	(1-4)	(1-4)	(1-4)	7	14	8	*	7	(1-4)	24	(1-4)	(1-4)	(1-4)	8
Huntington	†	†	†	(1-4)	(1-4)	†	(1-4)	†	(1-4)	(1-4)	(1-4)	(1-4)	†	(1-4)
Ipswich	(1-4)	(1-4)	(1-4)	(1-4)	14	(1-4)	(1-4)	(1-4)	(1-4)	9	(1-4)	(1-4)	(1-4)	7
Kingston	5	(1-4)	(1-4)	(1-4)	12	6	6	*	(1-4)	20	(1-4)	(1-4)	5	9
Lakeville	34	*	(1-4)	†	61	11	*	6	(1-4)	27	(1-4)	(1-4)	5	11
Lancaster	(1-4)	5	(1-4)	5	16	(1-4)	(1-4)	(1-4)	(1-4)	10	(1-4)	(1-4)	9	13
Lanesborough	5	(1-4)	(1-4)	(1-4)	15	†	(1-4)	5	(1-4)	11	†	†	†	†
Lawrence	81	118	137	115	451	102	97	140	119	458	89	129	48	266
Lee	(1-4)	5	(1-4)	(1-4)	14	(1-4)	(1-4)	5	(1-4)	12	(1-4)	(1-4)	(1-4)	5
Leicester	7	(1-4)	5	(1-4)	19	6	7	6	7	26	(1-4)	12	(1-4)	19
Lenox	(1-4)	(1-4)	(1-4)	8	17	(1-4)	(1-4)	(1-4)	(1-4)	11	(1-4)	(1-4)	(1-4)	7
Leominster	36	38	37	33	144	29	40	28	20	117	29	22	35	86
Leverett	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Lexington	(1-4)	(1-4)	(1-4)	(1-4)	13	(1-4)	(1-4)	(1-4)	(1-4)	11	(1-4)	(1-4)	(1-4)	6
Leyden	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Lincoln	†	†	(1-4)	†	(1-4)	†	†	†	(1-4)	(1-4)	†	(1-4)	†	(1-4)
Littleton	(1-4)	(1-4)	(1-4)	(1-4)	8	(1-4)	6	(1-4)	(1-4)	12	(1-4)	(1-4)	(1-4)	7
Longmeadow	(1-4)	(1-4)	5	(1-4)	13	(1-4)	(1-4)	(1-4)	(1-4)	12	(1-4)	*	†	8
Lowell	159	157	198	161	675	138	141	203	143	625	170	160	210	540
Ludlow	18	14	10	13	55	9	10	6	10	35	10	14	18	42
Lunenburg	(1-4)	6	(1-4)	(1-4)	13	†	(1-4)	†	(1-4)	5	(1-4)	(1-4)	(1-4)	9
Lynn	81	135	155	150	521	101	110	132	82	425	109	94	138	341
Lynnfield	†	5	(1-4)	(1-4)	10	(1-4)	(1-4)	7	(1-4)	15	(1-4)	(1-4)	†	(1-4)
Malden	50	43	45	45	183	38	44	45	34	161	27	31	41	99
Manchester	†	†	(1-4)	†	(1-4)	(1-4)	†	†	†	(1-4)	†	†	†	†
Mansfield	10	5	9	9	33	(1-4)	8	11	(1-4)	26	(1-4)	*	7	17
Marblehead	(1-4)	(1-4)	(1-4)	(1-4)	9	(1-4)	5	(1-4)	6	17	(1-4)	6	*	15
Marion	†	†	(1-4)	†	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	6	†	†	(1-4)	(1-4)
Marlborough	27	24	34	18	103	25	19	17	14	75	26	15	20	61
Marshfield	7	16	5	7	35	*	(1-4)	7	8	25	8	5	8	21
Mashpee	(1-4)	(1-4)	(1-4)	(1-4)	8	(1-4)	(1-4)	10	(1-4)	19	6	(1-4)	(1-4)	10
Mattapoisett	*	†	(1-4)	†	6	(1-4)	(1-4)	(1-4)	(1-4)	9	(1-4)	†	†	(1-4)
Maynard	5	5	(1-4)	(1-4)	15	(1-4)	(1-4)	(1-4)	(1-4)	8	(1-4)	(1-4)	(1-4)	5
Medfield	†	(1-4)	(1-4)	†	7	(1-4)	(1-4)	(1-4)	†	7	(1-4)	(1-4)	(1-4)	5
Medford	27	37	15	32	111	17	28	26	32	103	33	22	11	66
Medway	(1-4)	5	(1-4)	†	11	(1-4)	(1-4)	10	(1-4)	16	*	(1-4)	6	12

Melrose	*	6	(1-4)	6	22	5	9	6	5	25	(1-4)	7	*	16
Mendon	(1-4)	(1-4)	(1-4)	(1-4)	12	(1-4)	(1-4)	(1-4)	†	7	†	(1-4)	(1-4)	(1-4)
Merrimac	†	†	(1-4)	(1-4)	(1-4)	†	(1-4)	(1-4)	†	6	†	(1-4)	(1-4)	(1-4)
Methuen	21	22	37	32	112	15	23	33	21	92	26	31	25	82
Middleborough	(1-4)	*	21	13	49	18	20	14	14	66	13	11	15	39
Middlefield	†	†	(1-4)	†	(1-4)	†	†	†	(1-4)	(1-4)	†	†	†	†
Middleton	6	7	6	7	26	(1-4)	10	6	(1-4)	22	(1-4)	*	5	12
Milford	7	23	16	7	53	10	14	6	8	38	*	(1-4)	†	11
Millbury	5	10	12	10	37	9	13	11	14	47	8	17	25	50
Millis	(1-4)	5	(1-4)	5	13	(1-4)	(1-4)	(1-4)	(1-4)	8	5	(1-4)	(1-4)	13
Millville	(1-4)	(1-4)	†	(1-4)	6	(1-4)	(1-4)	(1-4)	†	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)
Milton	(1-4)	(1-4)	(1-4)	(1-4)	13	(1-4)	5	8	(1-4)	19	6	(1-4)	*	15
Monroe	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Monson	(1-4)	(1-4)	(1-4)	5	11	(1-4)	(1-4)	5	(1-4)	16	*	†	(1-4)	8
Montague	10	11	9	5	35	8	*	11	(1-4)	30	6	9	7	22
Monterey	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Montgomery	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Mount Washington	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Nahant	†	(1-4)	(1-4)	†	(1-4)	†	†	†	†	†	†	(1-4)	(1-4)	(1-4)
Nantucket	(1-4)	(1-4)	(1-4)	(1-4)	11	†	(1-4)	(1-4)	(1-4)	8	(1-4)	(1-4)	†	(1-4)
Natick	10	6	6	8	30	(1-4)	*	9	9	26	*	10	(1-4)	23
Needham	†	(1-4)	(1-4)	(1-4)	9	†	†	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	7	11
New Ashford	†	†	†	†	†	†	†	†	†	†	†	†	†	†
New Bedford	189	237	252	170	848	160	190	192	171	713	132	176	191	499
New Braintree	(1-4)	(1-4)	†	(1-4)	(1-4)	(1-4)	†	†	†	(1-4)	†	(1-4)	†	(1-4)
New Marlborough	†	†	(1-4)	†	(1-4)	†	†	†	†	†	†	(1-4)	†	(1-4)
New Salem	†	†	†	†	†	†	(1-4)	†	†	(1-4)	†	†	(1-4)	(1-4)
Newbury	†	(1-4)	(1-4)	†	(1-4)	†	(1-4)	(1-4)	†	(1-4)	(1-4)	†	†	(1-4)
Newburyport	(1-4)	(1-4)	7	7	20	(1-4)	(1-4)	5	(1-4)	14	(1-4)	†	(1-4)	7
Newton	11	13	10	14	48	12	12	9	13	46	17	11	18	46
Norfolk	†	(1-4)	(1-4)	(1-4)	5	(1-4)	(1-4)	(1-4)	†	7	(1-4)	5	(1-4)	10
North Adams	19	22	21	26	88	25	23	27	17	92	25	25	30	80
North Andover	9	6	12	8	35	10	11	10	10	41	*	(1-4)	6	14
North Attleboro	14	20	15	17	66	14	28	16	17	75	20	19	19	58
North Brookfield	5	(1-4)	†	(1-4)	8	(1-4)	†	(1-4)	†	5	(1-4)	†	(1-4)	(1-4)
North Reading	7	(1-4)	(1-4)	(1-4)	17	(1-4)	8	(1-4)	(1-4)	16	10	*	(1-4)	23
Northampton	30	39	40	29	138	22	28	20	22	92	14	25	33	72
Northborough	(1-4)	12	6	(1-4)	26	*	7	(1-4)	7	23	(1-4)	(1-4)	(1-4)	9
Northbridge	*	9	(1-4)	13	33	*	10	10	(1-4)	29	(1-4)	9	(1-4)	17
Northfield	†	†	†	†	†	(1-4)	†	†	†	(1-4)	(1-4)	†	(1-4)	(1-4)
Norton	9	6	8	5	28	(1-4)	*	5	9	22	8	(1-4)	*	16
Norwell	(1-4)	(1-4)	(1-4)	†	9	(1-4)	(1-4)	(1-4)	†	7	(1-4)	(1-4)	(1-4)	9

Norwood	13	13	18	12	56	14	21	12	15	62	13	8	15	36
Oak Bluffs	†	7	(1-4)	(1-4)	14	†	(1-4)	(1-4)	(1-4)	9	(1-4)	(1-4)	(1-4)	6
Oakham	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	†	(1-4)	(1-4)	†	(1-4)	†	(1-4)	†	(1-4)
Orange	(1-4)	11	*	9	33	7	7	6	12	32	5	(1-4)	(1-4)	12
Orleans	(1-4)	(1-4)	†	5	8	(1-4)	(1-4)	8	(1-4)	17	†	†	†	†
Otis	†	†	†	(1-4)	(1-4)	†	†	(1-4)	(1-4)	5	†	†	†	†
Oxford	(1-4)	*	11	10	28	(1-4)	(1-4)	(1-4)	(1-4)	12	†	†	(1-4)	(1-4)
Palmer	9	(1-4)	*	5	23	*	7	(1-4)	6	22	8	11	7	26
Paxton	(1-4)	(1-4)	(1-4)	†	(1-4)	†	(1-4)	†	(1-4)	(1-4)	†	(1-4)	†	(1-4)
Peabody	30	35	51	45	161	24	32	29	33	118	29	22	34	85
Pelham	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Pembroke	(1-4)	(1-4)	7	7	19	6	6	9	10	31	*	8	(1-4)	14
Pepperell	(1-4)	(1-4)	†	(1-4)	6	(1-4)	(1-4)	(1-4)	(1-4)	10	†	(1-4)	(1-4)	5
Peru	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Petersham	†	†	(1-4)	†	(1-4)	†	(1-4)	(1-4)	†	(1-4)	†	†	†	†
Phillipston	(1-4)	†	†	†	(1-4)	†	(1-4)	(1-4)	†	(1-4)	(1-4)	†	(1-4)	(1-4)
Pittsfield	60	65	88	72	285	63	83	93	67	306	70	91	58	219
Plainfield	†	†	(1-4)	†	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	5	(1-4)	†	(1-4)	(1-4)
Plainville	(1-4)	6	5	(1-4)	17	(1-4)	8	(1-4)	5	19	7	(1-4)	(1-4)	13
Plymouth	39	46	55	42	182	34	34	32	39	139	29	31	42	102
Plympton	†	†	†	(1-4)	(1-4)	(1-4)	(1-4)	†	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)
Princeton	†	†	†	†	†	(1-4)	†	†	†	(1-4)	†	†	†	†
Provincetown	(1-4)	†	5	(1-4)	9	(1-4)	(1-4)	(1-4)	5	11	(1-4)	(1-4)	7	14
Quincy	82	92	90	75	339	74	73	94	67	308	42	90	97	229
Randolph	16	20	25	11	72	15	9	14	15	53	11	8	15	34
Raynham	10	15	15	11	51	5	10	8	5	28	10	*	(1-4)	18
Reading	†	†	(1-4)	(1-4)	5	(1-4)	(1-4)	(1-4)	8	16	(1-4)	(1-4)	(1-4)	9
Rehoboth	(1-4)	(1-4)	5	(1-4)	12	(1-4)	(1-4)	(1-4)	(1-4)	10	(1-4)	(1-4)	(1-4)	7
Revere	52	51	77	51	231	47	51	55	46	199	40	37	47	124
Richmond	†	†	†	†	†	(1-4)	†	†	†	(1-4)	(1-4)	†	(1-4)	(1-4)
Rochester	†	(1-4)	†	†	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	6	(1-4)	(1-4)	(1-4)	6
Rockland	11	9	18	17	55	17	10	11	12	50	13	9	7	29
Rockport	†	(1-4)	†	(1-4)	(1-4)	(1-4)	(1-4)	†	(1-4)	(1-4)	(1-4)	†	(1-4)	(1-4)
Rowe	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Rowley	(1-4)	(1-4)	(1-4)	(1-4)	5	†	†	(1-4)	†	(1-4)	†	(1-4)	(1-4)	(1-4)
Royalston	†	†	†	†	†	†	†	(1-4)	(1-4)	(1-4)	†	†	†	†
Russell	†	(1-4)	†	(1-4)	(1-4)	†	(1-4)	†	†	(1-4)	†	†	(1-4)	(1-4)
Rutland	(1-4)	†	7	(1-4)	9	†	(1-4)	7	(1-4)	11	†	†	†	†
Salem	24	37	59	29	149	24	23	40	29	116	22	25	31	78
Salisbury	9	9	(1-4)	*	29	8	10	7	9	34	(1-4)	*	6	15
Sandisfield	†	†	(1-4)	†	(1-4)	†	(1-4)	†	†	(1-4)	†	(1-4)	†	(1-4)
Sandwich	(1-4)	12	(1-4)	9	28	(1-4)	7	10	*	26	(1-4)	*	7	14
Saugus	38	33	25	28	124	17	28	32	32	109	28	17	19	64
Savoy	†	†	†	†	†	†	†	†	(1-4)	(1-4)	†	†	†	†
Scituate	(1-4)	(1-4)	(1-4)	(1-4)	9	(1-4)	(1-4)	(1-4)	†	7	(1-4)	(1-4)	(1-4)	8
Seekonk	11	9	8	7	35	9	6	8	5	28	(1-4)	(1-4)	(1-4)	10

Sharon	(1-4)	(1-4)	(1-4)	7	17	(1-4)	(1-4)	7	(1-4)	16	(1-4)	(1-4)	†	(1-4)
Sheffield	†	†	†	(1-4)	(1-4)	†	†	(1-4)	†	(1-4)	(1-4)	(1-4)	(1-4)	5
Shelburne	(1-4)	(1-4)	(1-4)	†	(1-4)	(1-4)	†	(1-4)	(1-4)	5	†	(1-4)	†	(1-4)
Sherborn	†	†	†	(1-4)	(1-4)	(1-4)	†	†	†	(1-4)	†	†	†	†
Shirley	9	(1-4)	(1-4)	(1-4)	17	†	*	(1-4)	7	13	7	*	(1-4)	16
Shrewsbury	8	5	10	13	36	7	5	12	9	33	(1-4)	7	*	16
Shutesbury	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Somerset	10	11	9	15	45	10	13	16	7	46	11	5	9	25
Somerville	37	44	46	41	168	50	45	36	39	170	24	29	64	117
South Hadley	8	6	8	12	34	8	15	8	7	38	15	15	12	42
Southampton	†	(1-4)	(1-4)	†	6	(1-4)	†	(1-4)	†	(1-4)	(1-4)	(1-4)	(1-4)	5
Southborough	(1-4)	(1-4)	(1-4)	(1-4)	8	(1-4)	(1-4)	(1-4)	(1-4)	11	(1-4)	(1-4)	5	11
Southbridge	20	29	25	25	99	15	23	17	14	69	14	15	18	47
Southwick	(1-4)	(1-4)	5	10	19	(1-4)	5	6	(1-4)	17	*	8	(1-4)	16
Spencer	9	7	8	5	29	*	11	8	(1-4)	28	7	7	8	22
Springfield	232	272	313	283	1100	247	282	300	274	1103	258	260	339	857
Sterling	(1-4)	(1-4)	†	(1-4)	8	†	(1-4)	(1-4)	(1-4)	10	(1-4)	(1-4)	(1-4)	5
Stockbridge	(1-4)	†	†	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	†	(1-4)	†	(1-4)	†	(1-4)
Stoneham	15	9	10	12	46	8	10	8	5	31	(1-4)	*	10	21
Stoughton	14	22	21	19	76	19	20	19	17	75	12	15	9	36
Stow	†	(1-4)	†	†	(1-4)	†	(1-4)	(1-4)	†	(1-4)	†	†	†	†
Sturbridge	5	12	6	5	28	(1-4)	(1-4)	(1-4)	14	22	(1-4)	(1-4)	7	15
Sudbury	†	†	†	(1-4)	(1-4)	†	†	†	†	†	(1-4)	(1-4)	(1-4)	(1-4)
Sunderland	†	5	†	†	5	(1-4)	(1-4)	(1-4)	†	(1-4)	(1-4)	†	(1-4)	(1-4)
Sutton	(1-4)	(1-4)	(1-4)	(1-4)	15	(1-4)	(1-4)	(1-4)	(1-4)	9	5	(1-4)	(1-4)	10
Swampscott	(1-4)	(1-4)	6	(1-4)	18	(1-4)	(1-4)	7	(1-4)	14	(1-4)	7	(1-4)	12
Swansea	(1-4)	*	8	12	29	5	6	9	6	26	10	*	(1-4)	20
Taunton	34	44	59	48	185	46	59	54	55	214	40	53	51	144
Templeton	7	(1-4)	(1-4)	(1-4)	18	(1-4)	(1-4)	5	(1-4)	11	(1-4)	(1-4)	(1-4)	(1-4)
Tewksbury	23	19	11	15	68	16	16	20	24	76	28	19	13	60
Tisbury	(1-4)	(1-4)	(1-4)	(1-4)	10	5	†	†	†	5	†	(1-4)	(1-4)	5
Tolland	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Topsfield	(1-4)	†	†	†	(1-4)	†	(1-4)	(1-4)	†	(1-4)	(1-4)	(1-4)	(1-4)	6
Townsend	(1-4)	(1-4)	(1-4)	5	11	(1-4)	(1-4)	6	(1-4)	12	(1-4)	†	(1-4)	(1-4)
Truro	(1-4)	5	(1-4)	†	8	(1-4)	(1-4)	(1-4)	†	6	(1-4)	(1-4)	†	(1-4)
Tyngsborough	(1-4)	(1-4)	(1-4)	†	10	6	5	(1-4)	(1-4)	15	(1-4)	(1-4)	(1-4)	(1-4)
Tyringham	†	†	†	†	†	†	†	†	(1-4)	(1-4)	†	†	†	†
Upton	(1-4)	(1-4)	(1-4)	†	7	(1-4)	(1-4)	(1-4)	(1-4)	6	†	†	(1-4)	(1-4)
Uxbridge	(1-4)	7	(1-4)	(1-4)	15	(1-4)	(1-4)	5	(1-4)	13	8	(1-4)	(1-4)	13
'Wakefield	13	11	9	8	41	9	8	14	6	37	8	9	14	31
Wales	(1-4)	†	(1-4)	†	(1-4)	†	†	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	9
Walpole	12	(1-4)	*	8	32	*	7	(1-4)	6	22	*	5	(1-4)	12
Waltham	34	42	27	33	136	40	34	36	19	129	23	26	21	70
Ware	10	8	8	11	37	8	9	16	13	46	6	7	5	18
Wareham	21	27	41	39	128	26	29	24	25	104	21	37	27	85
Warren	*	†	9	(1-4)	21	(1-4)	(1-4)	(1-4)	6	12	†	*	(1-4)	10

Source														
Warwick	†	†	†	†	†	(1-4)	†	†	†	(1-4)	†	†	†	†
Washington	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Watertown	11	9	11	9	40	10	16	(1-4)	*	35	12	10	7	29
Wayland	(1-4)	†	†	†	(1-4)	†	†	(1-4)	†	(1-4)	†	(1-4)	(1-4)	(1-4)
Webster	25	23	22	21	91	34	28	23	29	114	17	19	24	60
Wellesley	9	(1-4)	(1-4)	(1-4)	14	(1-4)	(1-4)	(1-4)	(1-4)	8	5	(1-4)	(1-4)	9
Wellfleet	(1-4)	(1-4)	†	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	†	(1-4)	†	(1-4)	(1-4)	(1-4)
Wendell	†	†	†	†	†	†	†	†	†	†	(1-4)	(1-4)	†	(1-4)
Wenham	†	(1-4)	†	†	(1-4)	(1-4)	†	†	(1-4)	(1-4)	(1-4)	†	†	(1-4)
West Boylston	(1-4)	5	(1-4)	9	21	(1-4)	6	7	(1-4)	20	*	5	(1-4)	11
West Bridgewater	(1-4)	(1-4)	7	8	21	(1-4)	8	6	(1-4)	19	†	(1-4)	(1-4)	6
West Brookfield	(1-4)	(1-4)	(1-4)	(1-4)	10	5	6	(1-4)	(1-4)	16	†	(1-4)	(1-4)	(1-4)
West Newbury	†	†	(1-4)	(1-4)	(1-4)	†	†	†	†	†	†	(1-4)	†	(1-4)
West Springfield	39	43	38	24	144	28	31	24	26	109	21	34	34	89
West Stockbridge	†	†	†	†	†	(1-4)	†	(1-4)	(1-4)	(1-4)	(1-4)	(1-4)	†	(1-4)
West Tisbury	†	†	†	†	†	(1-4)	(1-4)	†	†	(1-4)	†	†	†	†
Westborough	17	13	19	16	65	20	21	14	16	71	12	16	17	45
Westfield	28	21	25	18	92	17	17	25	21	80	18	26	21	65
Westford	*	7	(1-4)	6	21	(1-4)	*	5	5	16	(1-4)	(1-4)	(1-4)	9
Westhampton	†	†	†	†	†	†	(1-4)	†	†	(1-4)	†	†	†	†
Westminster	10	10	7	6	33	6	10	13	5	34	†	(1-4)	(1-4)	(1-4)
Weston	†	(1-4)	†	†	(1-4)	†	†	†	(1-4)	(1-4)	(1-4)	12	(1-4)	17
Westport	(1-4)	5	(1-4)	7	18	*	10	9	(1-4)	28	(1-4)	(1-4)	†	(1-4)
Westwood	(1-4)	(1-4)	(1-4)	7	15	(1-4)	5	6	(1-4)	15	†	(1-4)	(1-4)	(1-4)
Weymouth	31	30	37	35	133	32	43	26	33	134	25	31	36	92
Whately	(1-4)	(1-4)	†	(1-4)	(1-4)	†	†	†	†	†	(1-4)	(1-4)	†	(1-4)
Whitman	6	10	8	8	32	*	(1-4)	14	6	28	7	*	(1-4)	16
Wilbraham	*	(1-4)	5	13	27	8	10	7	11	36	7	*	(1-4)	16
Williamsburg	†	†	(1-4)	†	(1-4)	6	(1-4)	(1-4)	(1-4)	11	(1-4)	(1-4)	†	(1-4)
Williamstown	(1-4)	(1-4)	(1-4)	(1-4)	5	(1-4)	(1-4)	†	†	(1-4)	(1-4)	(1-4)	(1-4)	7
Wilmington	12	19	23	28	82	*	21	(1-4)	20	65	13	14	11	38
Winchendon	11	5	6	9	31	11	10	5	9	35	8	*	(1-4)	17
Winchester	†	*	†	(1-4)	7	†	(1-4)	†	†	(1-4)	(1-4)	(1-4)	(1-4)	9
Windsor	†	(1-4)	†	†	(1-4)	†	†	†	†	†	†	†	†	†
Winthrop	9	9	8	5	31	8	6	6	9	29	(1-4)	8	*	18
Woburn	21	29	20	23	93	17	29	21	15	82	12	17	13	42
Worcester	340	254	309	298	1201	270	234	283	238	1025	212	214	209	635
Worthington	(1-4)	†	†	†	(1-4)	†	(1-4)	†	†	(1-4)	(1-4)	†	†	(1-4)
Wrentham	(1-4)	(1-4)	5	5	17	(1-4)	*	6	10	26	(1-4)	(1-4)	5	10
Yarmouth	18	31	40	23	112	17	12	21	17	67	23	21	18	62
Unknown	†	(1-4)	(1-4)	†	(1-4)	(1-4)	†	(1-4)	(1-4)	5	†	†	†	†
Grand Total	5011	5489	5978	5152	21630	4348	4932	5269	4399	18948	4080	4484	4782	13346

- Bureau of Health Care Safety and Quality, MDPH

MA Prescription Monitoring Program County-Level Data Measures (Calendar Year 2023 Quarter 2 and 2023 Quarter 3)

Massachusetts Department of Public Health, Bureau of Health Professions Licensure, April 2023

The Department of Public Health's (DPH) Prescription Drug Monitoring Program (PMP) serves as a repository of data for all prescription drugs dispensed statewide, including those prescriptions that are sought after for illicit and non-medical use and thus represent the highest potential for abuse (federal Schedules II – V, including certain narcotics, stimulants, and sedatives). The PMP also enables prescribers and dispensers to access a patient's prescription history and can be used as a clinical decision-making tool, allowing the provider to have a holistic view of the patient's medications.

When interpreting PMP county-level data, it is important to emphasize that increases or decreases in a single measure may not indicate an increase or decrease in prescription misuse or abuse. Put simply, use does not always equate to abuse. There are many factors that might explain an unusually high rate of prescribing in each area. For instance, an area which contains a large number of residents in long-term care facilities may result in a high rate of opioid prescribing.

These datasets inform critical discussions about opioid prescribing, provide an important baseline to better inform future policy decisions and allow the state and stakeholders to more meaningfully measure whether policy initiatives are effective.

Effective October 6, 2014, all hydrocodone combination drug (HCD) products (e.g., Vicodin) were reclassified from Schedule III to Schedule II. This reclassification during the last quarter of 2014 makes comparisons over time difficult to interpret. Beginning with CY 2015 data, reports of Schedule II products will include all HCD prescriptions.

Individuals with activity of concern "thresholds" for this report are based on a 3-month period. MDPH has previously released annual county-level reports that provide thresholds based on a 12-month period. Although the numbers (or rates) generated may appear to be comparable, they represent different time periods and are **NOT** an apples-to-apples comparison. The results are only comparable when the thresholds (e.g., 4 different providers and 4 different pharmacies), time interval (e.g., over a three-month period), and drug products analyzed (e.g., Schedule II opioids) are the same. Meaning, the total number (or rates) of individuals who received Schedule II-V opioid prescriptions from 4 or more providers and had them filled at 4 or more pharmacies in a 3-month period cannot and should not be compared with the total number of individuals (or rates) who received Schedule II-V opioid prescriptions from 4 or more providers and had them filled at 4 or more pharmacies in a 12-month period.

April - June 2023 (Quarter 2)

County (County classifications are by patient zip code; patient state must also = MA)	Census Population*	Total Schedule II Opioid Prescriptions	Total Number of Schedule II Opioid Solid Dosage Units	Individuals Receiving Schedule II Opioid Prescription	% of Individuals Receiving Schedule II Opioid Prescription (of total population)	Individuals with Activity of Concern	Rate of Individuals with Activity of Concern (per 1,000)
Barnstable	228,996	19,977	924,828	8,815	3.8	11	1.2
Berkshire	129,026	10,834	538,351	4,872	3.8	<5	NR
Bristol	579,200	51,439	2,944,193	20,792	3.6	12	0.6
Dukes	20,600	1,144	56,648	555	2.7	0	0
Essex	809,829	51,002	2,430,562	23,770	2.9	12	0.5
Franklin	71,029	6,808	395,034	2,793	3.9	5	1.8
Hampden	465,825	38,237	2,008,334	17,199	3.7	18	1.0
Hampshire	162,308	12,315	709,882	5,295	3.3	8	1.5
Middlesex	1,632,002	75,011	3,396,624	37,408	2.3	39	1.0
Nantucket	14,255	655	30,364	317	2.2	0	0
Norfolk	725,981	39,116	1,970,823	18,593	2.6	19	1.0
Plymouth	530,819	38,465	2,056,071	17,509	3.3	18	1.0
Suffolk	797,936	35,707	1,890,858	16,788	2.1	21	1.3
Worcester	862,111	58,162	3,082,397	25,942	3.0	24	0.9
MA	7,029,917	438,872	22,434,968	199,361	2.8	187	1.0

Note 1: Individuals with activity of concern "thresholds" for this report are based ONLY on a 3-month time period; see notes on previous page; CY2023-Q2

Note 2: Counts greater than 0 but less than 5 are not reported. Rates based on these small values also are not reported (NR).

Note 3: Rates of individuals with activity of concern are based on the population of individuals who have received one or more Schedule II opioid prescriptions during the specified time period.

Note 4: Totals for all counties combined exclude a small number of prescription records that could not be assigned a county due to inaccurate zip code/city town information reported to the program.

Note 5: The total sum for the "Number of Individuals Receiving Schedule II Opioid Prescription" will be slightly different than the sum presented for the state in Figure 2 due to a small number of double counting of individuals moving from one county to another during the specified time period.

Note 6: PMP data are preliminary and subject to updates. The MA PMP database is continuously updated to allow for prescription record correction data submitted by pharmacies. This data were extracted on 10/20/2023; Release Date: Nov 2023.

Note 7: Beginning in 3rd quarter of 2016 the Department of Veteran's Affairs (VA) facilities began submitting data to the MA PMP.

Note 8: UMDI Interim 2020 Population Estimates by Age, Sex, Race, and Municipality, UMass Donahue Institute Population Estimates Program, March 1, 2022

Note 9:The total number of individuals with activity of concern for the state (MA) do not include suppressed values.

July – September 2023 (Quarter 3)

County (County classifications are by patient zip code; patient state must also = MA)	Census Population*	Total Schedule II Opioid Prescriptions	Total Number of Schedule II Opioid Solid Dosage Units	Individuals Receiving Schedule II Opioid Prescription	% of Individuals Receiving Schedule II Opioid Prescription (of total population)	Individuals with Activity of Concern	Rate of Individuals with Activity of Concern (per 1,000)
Barnstable	228,996	19,622	914,438	8,455	3.7	6	0.7
Berkshire	129,026	10,628	530,158	4,775	3.7	<5	NR
Bristol	579,200	49,726	2,895,701	19,994	3.5	14	0.7
Dukes	20,600	1,185	59,286	577	2.8	0	0
Essex	809,829	49,859	2,365,371	23,032	2.8	22	1.0
Franklin	71,029	6,828	396,907	2,720	3.8	<5	NR
Hampden	465,825	37,228	1,975,454	16,658	3.6	15	0.9
Hampshire	162,308	11,997	685,370	5,077	3.1	6	1.2
Middlesex	1,632,002	72,878	3,336,674	36,064	2.2	34	0.9
Nantucket	14,255	716	31,961	350	2.5	0	0
Norfolk	725,981	37,895	1,912,385	17,951	2.5	15	0.8
Plymouth	530,819	37,158	1,992,299	16,986	3.2	16	0.9
Suffolk	797,936	34,528	1,850,259	16,054	2.0	19	1.2
Worcester	862,111	56,381	3,018,870	25,261	2.9	23	0.9
MA	7,029,917	426,629	21,965,132	192,830	2.7	170	0.9

Note 1: Individuals with activity of concern "thresholds" for this report are based ONLY on a 3-month time period; see notes on previous page; CY2023-Q3

Note 2: Counts greater than 0 but less than 5 are not reported. Rates based on these small values also are not reported (NR).

Note 3: Rates of individuals with activity of concern are based on the population of individuals who have received one or more Schedule II opioid prescriptions during the specified time period.

Note 4: Totals for all counties combined exclude a small number of prescription records that could not be assigned a county due to inaccurate zip code/city town information reported to the program.

Note 5: The total sum for the "Number of Individuals Receiving Schedule II Opioid Prescription" will be slightly different than the sum presented for the state in Figure 2 due to a small number of double counting of individuals moving from one county to another during the specified time period.

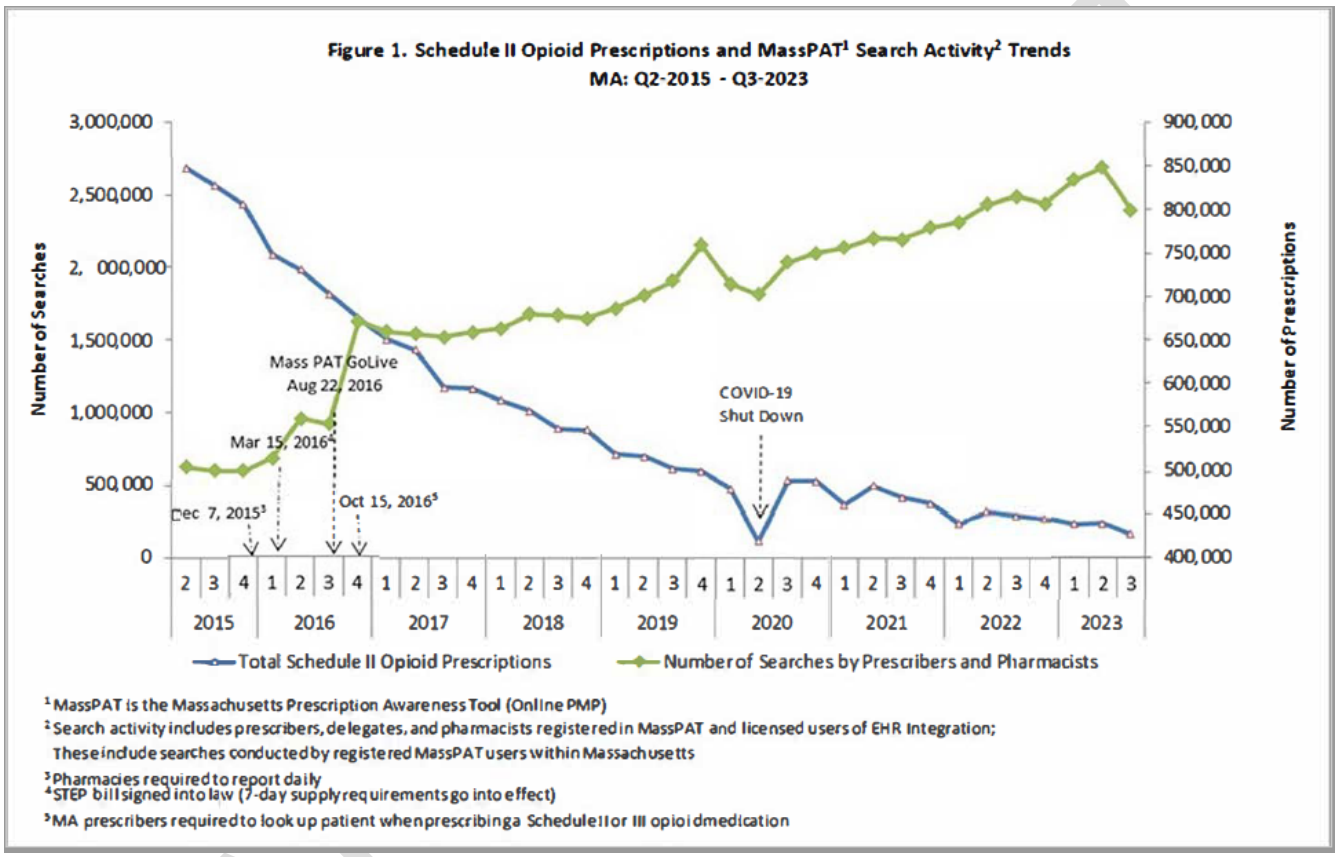
Note 6: PMP data are preliminary and subject to updates. The MA PMP database is continuously updated to allow for prescription record correction data submitted by pharmacies. These data were extracted on 10/20/2023; Release Date: Nov 2023.

Note 7: Beginning in 3rd quarter of 2016 the Department of Veteran's Affairs (VA) facilities began submitting data to the MA PMP.

Note 8: UMDI Interim 2020 Population Estimates by Age, Sex, Race, and Municipality, UMass Donahue Institute Population Estimates Program, March 1, 2022

Note 9: The total number of individuals with activity of concern for the state (MA) do not include suppressed values.

- Registered MassPAT providers conducted almost 2.7 million searches in the 2nd Quarter of 2023 and almost 2.4 million searches in the 3rd Quarter of 2023. This decrease of nearly 300,000 searches (just over 10%) from Quarter 2 to Quarter 3 may be attributed to seasonal differences. Future quarters will be monitored closely to assess whether there is a decreasing trend in search activity.
- In the 2nd Quarter of 2023, there were approximately 438,000 Schedule II opioid prescriptions reported to the MA PMP; this is approximately the same as the previous quarter and over a 47% decrease from the 1st Quarter of 2015 (n = 841,990 Schedule II opioid prescriptions). In the 3rd Quarter of 2023, there were approximately 426,000 Schedule II opioid prescriptions reported to the MA PMP; this is a small decrease from the previous quarter and over 49% decrease from the 1st Quarter of 2015.

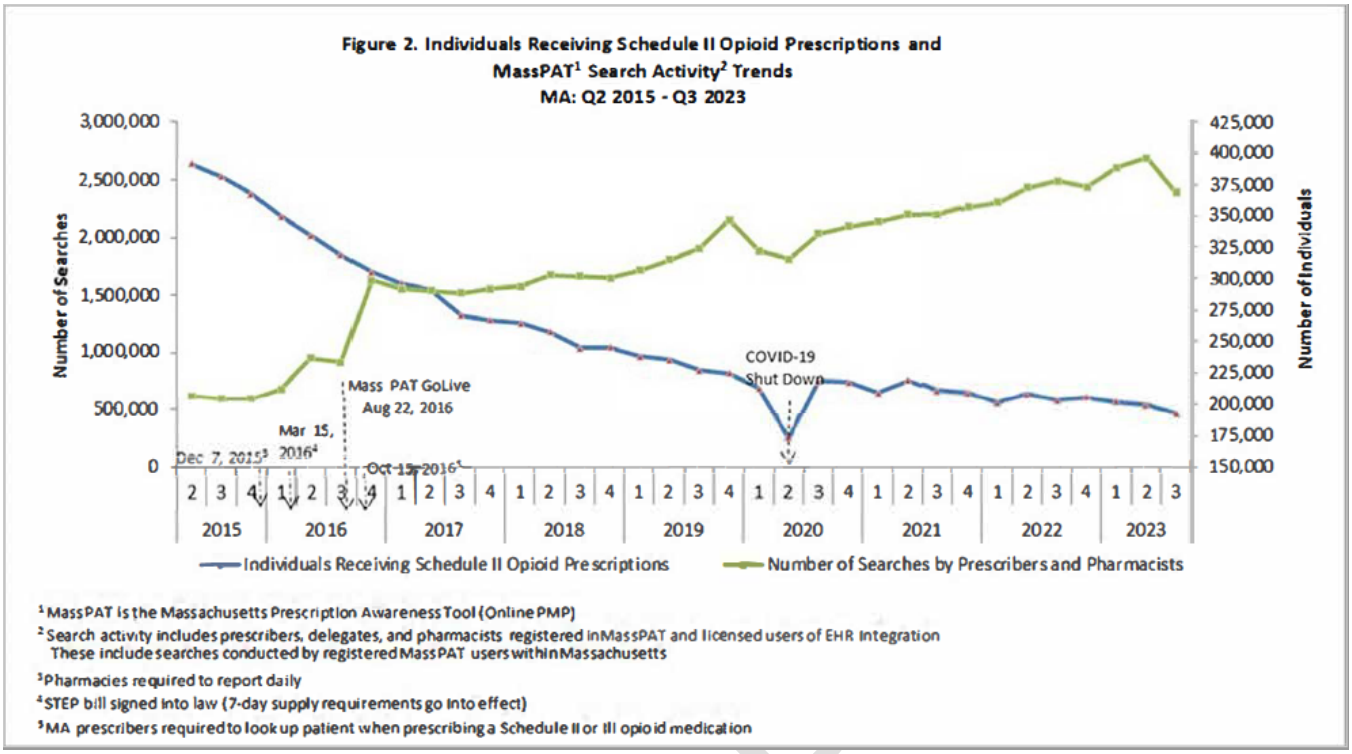


Notes:

- PMP data are subject to updates. The MA PMP database is continuously updated to allow for prescription record correction data submitted by pharmacies. The data for CY2023 Q2 and CY2023 Q3 data were extracted on 10/20/2023.

- The total search counts for the most recent two quarters are notably lower compared to previous reporting periods. This is due to some discrepancies in the counts in reports our MassPAT vendor provides to the program. In the past reports the total counts were inflated due to overrepresenting the number of Gateway (i.e., Integration) searches reported to us in our daily extracts. Any archived reports will be updated to reflect the accurate counts by the end of CY23.

- Approximately 199,000 individuals in MA received prescriptions for Schedule II opioids in the 2nd Quarter of 2023 ; this is a slight decrease from the previous quarter (a decrease of about 2,400 individuals) and almost a 49% decrease from the 1st Quarter of 2015 (n = 390,532).
- Approximately 192,000 individuals in MA received prescriptions for Schedule II opioids in the 3rd Quarter of 2023 ; this is a slight decrease from the previous quarter (a decrease of about 6,500 individuals) and over a 50% decrease from the 1st Quarter of 2015.

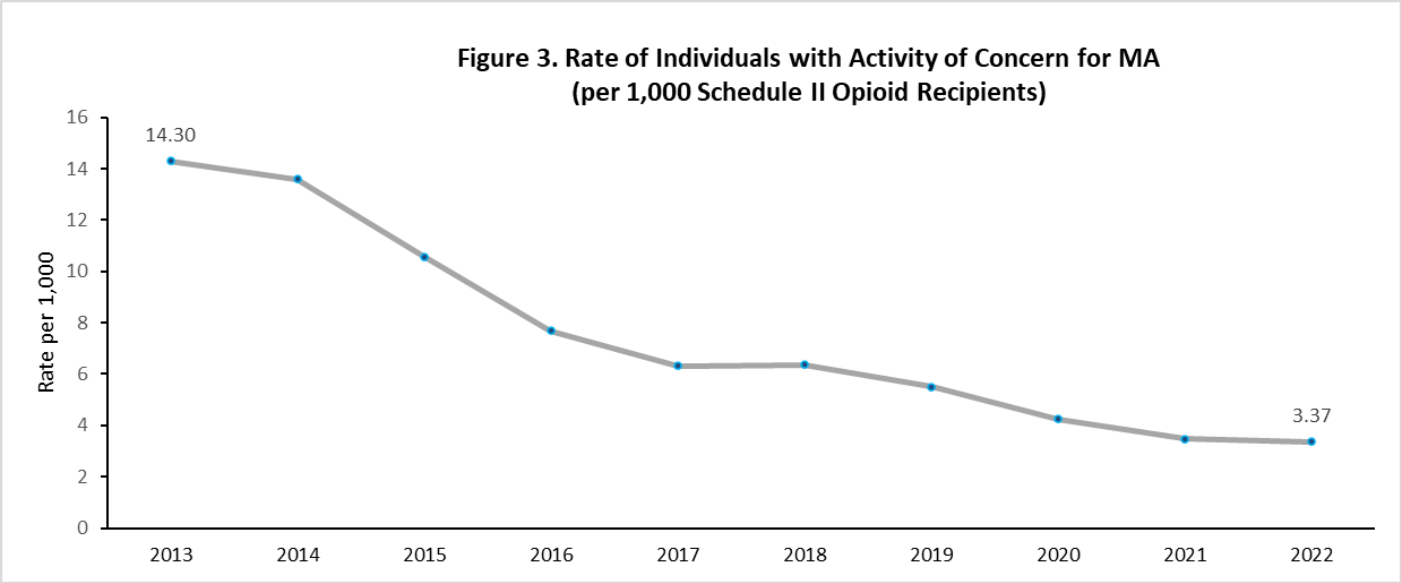


Note:

- PMP data are subject to updates. The MA PMP database is continuously updated to allow for prescription record correction data submitted by pharmacies. The data for CY2023 Q2 and CY2023 Q3 data were extracted on 10/20/2023.

- The total search counts for the most recent two quarters are notably lower compared to previous reporting periods. This is due to some discrepancies in the counts in reports our MassPAT vendor provides to the program. In the past reports the total counts were inflated due to overrepresenting the number of Gateway (i.e., Integration) searches reported to us in our daily extracts. Any archived reports will be updated to reflect the accurate counts by the end of CY23.

- The rate of individuals with activity of concern (also referred to as multiple provider episodes) decreased from 14.3 to 3.4 per 1,000 individuals between CY 2013 and CY 2022, more than a 76% reduction in activity of concern. Between CY 2021 and CY 2022 the rates of individuals with activity of concern decreased from 3.5 to 3.4 per 1,000 patients.



Note: PMP data are subject to updates. The MA PMP database is continuously updated to allow for prescription record correction data submitted by pharmacies. The data for CY2022 were extracted on 04/06/2023.

Source

- Prescription Drug Monitoring Program, Bureau of Health Professions Licensure, MDPH

Substance Exposed Newborns and Maternal Opioid Use Surveillance Data

partment of Public Health POSTED: DECEMBER 2023

Introduction

DPH monitors the impact of the opioid epidemic on mothers and babies in several ways. On the next two pages are a series of maps depicting infants exposed to controlled substances and birthing people who used opioids or benzodiazepines during pregnancy. These maps are created using surveillance data based on standardized administrative codes as reported by the birth hospital. This data provides timely reporting on Neonatal Abstinence Syndrome (NAS) and Substance-Exposed Newborns in Massachusetts. These measures have been validated and found to be relatively sensitive, with a high positive predictive value[1].

Additionally, DPH produces the NAS Dashboard, which provides population-based data on NAS and eight other key indicators related to perinatal opioid use. Data are provided for the state overall, as well as by maternal race/ethnicity, education, age, and insurance coverage. In addition to statewide estimates, data are also presented by the six Executive Office of Health and Human Services (EOHHS) regions.

To learn more about how DPH supports mothers in recovery, please visit our summary of treatment services for pregnant and postpartum women and more resources are available through DPH's partner, the Institute for Health and Recovery.

Glossary of Terms

Neonatal Abstinence Syndrome (NAS) – Intrauterine exposure to opioids, antidepressants, barbiturates, or benzodiazepines may result in a neonatal condition known as Neonatal Abstinence Syndrome. Infants with NAS are often fussy and hard to soothe. Treatments for NAS include skin-to-skin, swaddling, low light and low noise, non-nutritive sucking, rocking, and pharmacologic therapy. NAS is a qualifying condition for one year of Early Intervention (EI) services. The EI program provides family-centered services to support child development.

Neonatal Opioid Withdrawal Syndrome (NOWS) – While NAS is often caused by exposure to opioids, it can be caused by exposure to other substances. Although NOWS refers to the same constellation of symptoms as NAS, NOWS differs in that it is specifically caused by exposure to opioids. This can include both illicit opioids and Medication for Opioid Use Disorder such as Buprenorphine, Methadone, or Suboxone.

Infants Exposed to Controlled Substances – In these maps we look at Infants Exposed to Controlled Substances. This is based on two administrative ICD-10-CM codes. P96.1: Neonatal withdrawal symptoms, P04.49: Infant affected by maternal use of Controlled Substances. These ICD-10 codes can include opioids (including medications for opioid use disorder), benzodiazepines, methamphetamine, barbiturate, cocaine, hallucinogens, or cannabis. Percent of infants with exposure to Controlled Substances was calculated as: number of infants reported by facilities in that county as having above ICD codes / total number of births, living or dead, where the gestational age is estimated to be 24 weeks or greater as reported by facilities in that county.

[1] https://www.cdc.gov/mmwr/volumes/69/wr/mm6929a2.htm

Mothers who Used Opioids or Benzodiazepines – As NAS can be caused by both opioids and/or benzodiazepines, DPH also monitors the number of mothers who use these substances during pregnancy. This is based on two administrative ICD-10-CM codes. F11.20: Opioid dependence, F13.20: Sedative, hypnotic, or anxiolytic dependence. Percent of mothers with opioid or benzodiazepine use during pregnancy was calculated as: number of mothers reported by facilities in that county as having above ICD codes / total number of births, living or dead, where the gestational age is estimated to be 24 weeks or greater as reported by facilities in that county.

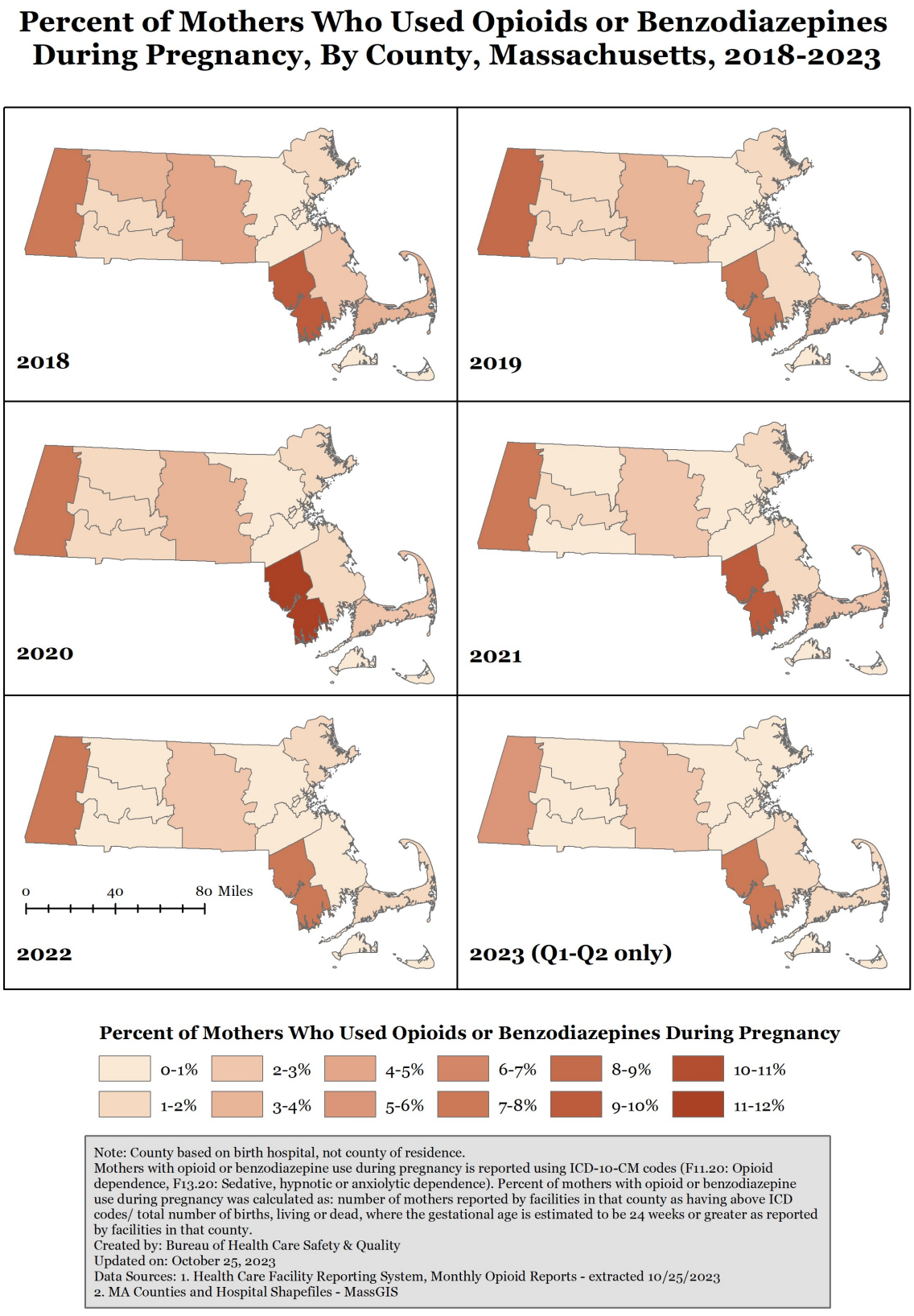


Figure 1. Percent of Mothers who used Opioids or Benzodiazepines During Pregnancy by County, Massachusetts

Bristol County had the highest rate of mothers who used opioids or benzodiazepines during pregnancy to date in 2023. Between 2022 and 2023 there was an increase of 13% (from 7.09% to 7.99%). Berkshire County had the second highest percentage of mothers who used opioids or benzodiazepines during pregnancy, which decreased by 27% (from 7.80% to 5.67%).

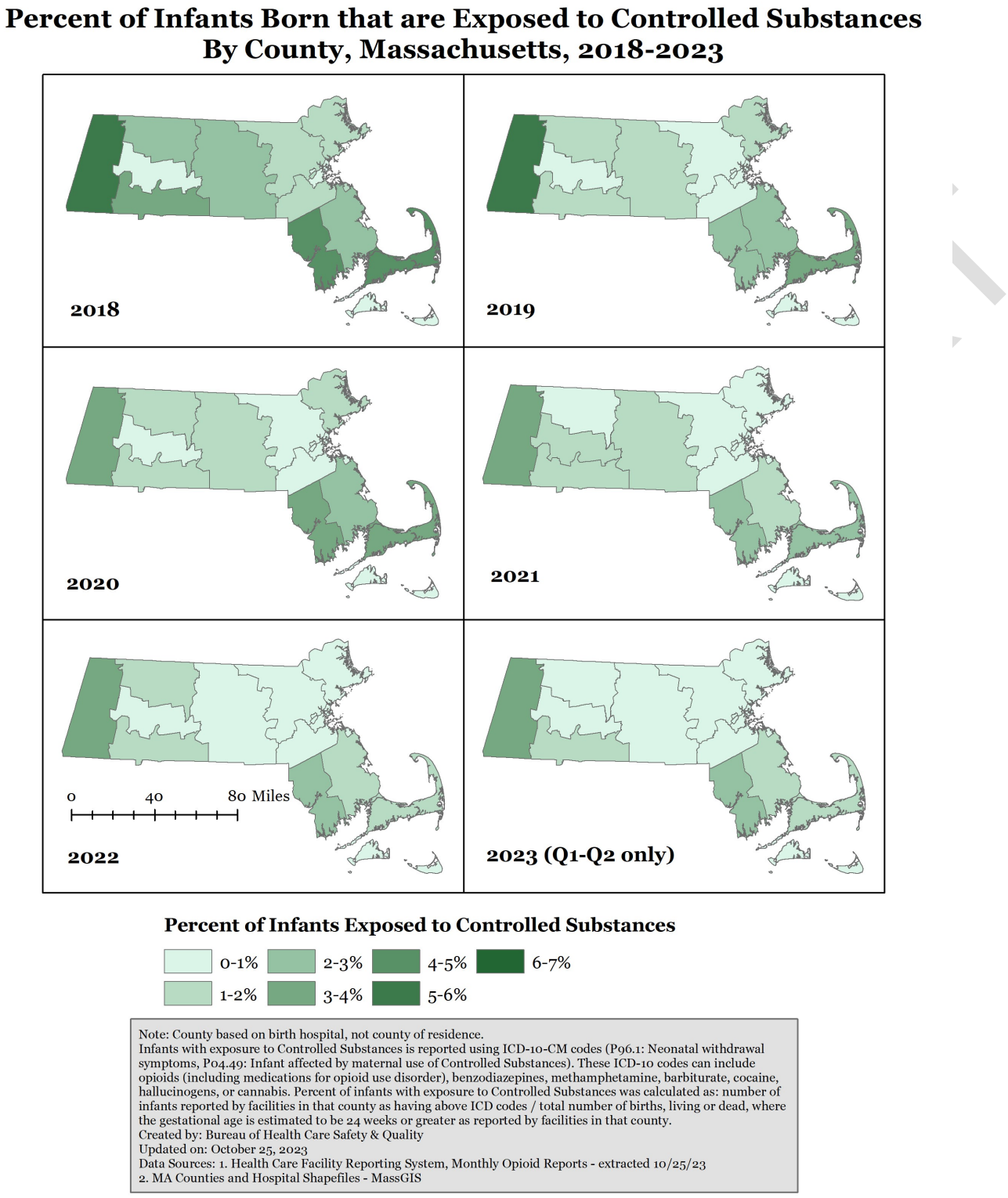


Figure 2. Percent of Infants Exposed to Controlled Substances by County, Massachusetts, 2017-2022.
Berkshire County had the highest rate of infants born exposed to controlled substances to date in 2023. Between 2022 and 2023 there was an increase of 1% (from 3.90% to 3.94%). Bristol County, was the county with the second highest percentage of mothers who used opioids or benzodiazepines during pregnancy, which decreased by 15% (from 2.52% to 2.13%).