

Massachusetts Department of Public Health

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Enhancement of Opioid Overdose Surveillance

The Massachusetts Ambulance Trip Reporting Information System (MATRIS) 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. The Department of Public Health (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 notation that a trip was listed as a poisoning, that there was an administration of naloxone, or that the patient admitted to drug use. In combination, this information allows DPH to more accurately count opioid overdose incidents.

Results

The trends observed between 2013 and 2015 in data obtained from MATRIS closely match the trends observed from opioid death data. The number of suspected opioid-related ambulance transports recorded in MATRIS has increased markedly since 2013 as have naloxone administrations. The table below provides specific statistics about suspected opioid-related ambulance trips and naloxone administrations, but it should be used with caution. Given the effort to improve the completeness of MATRIS data, the data below should be used in context with other information, such as opioid-related overdose death data. Recent changes may be a reflection of an increase in opioid-related EMS trips or simply improvements in reporting by EMS providers. Since these results closely align with data reported on deaths, it seems likely that some increase in opioid-related ambulance trips and the present.

Suspected Opioid-Related Ambulance Service Transport and Naloxone Administration Statistics

All Suspected Opioid Related Incidents: 2013								
	11-14	15-24	25-34	35-44	45-54	55-64	65+	Total
Male		654	1347	711	643	386	221	3968
Female		398	654	411	379	237	261	2347
Total	13	1052	2001	1122	1022	623	482	6315

All Suspected Opioid Related Incidents: 2014								
	11-14	15-24	25-34	35-44	45-54	55-64	65+	Total
Male		1089	2432	1156	939	482	290	6389
Female		596	1023	582	499	256	246	3205
Total		1685	3455	1738	1438	738	536	9594

All Suspected Opioid Related Incidents: 2015								
	0-14	15-24	25-34	35-44	45-54	55-64	65+	Total
Male		1163	3080	1643	1189	586	321	7986
Female		605	1369	730	581	336	272	3898
Total	9	1768	4449	2373	1770	922	593	11884

Note: Cells with 1-7 opioid-related incidents are suppressed

	Incidents where Naloxone was Administered	Incidents where Naloxone was Administered More than Once	Total Number of Naloxone Administrations		
2013	5443	1260	7002		
2014	8015	2160	10720		
2015	9127	2976	12982		

Technical Notes

Suspected opioid related incidents are identified using an algorithm that DPH developed with CDC using multiple fields in the MATRIS system. Due to difference in reporting by EMS services, these numbers are likely an undercount of true opioid-related incidents.