



## Rhode Island Municipality Overdose Data Report

### LINCOLN



Center for Health Data and Analysis | June 2019

## Acknowledgements

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## Introduction

The current opioid epidemic is a national, state, and local public health crisis that affects all Rhode Islanders. Not one municipality in our state has been spared the devastation brought on by this crisis. Curbing this crisis requires a comprehensive, collaborative approach of local stakeholders from across the State. To respond to this public health crisis, Governor Raimondo's Overdose Prevention and Intervention Task Force, co-chaired by the Governor's Office, The Rhode Island Department of Health (RIDOH), and the Rhode Island Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals (BHDDH), developed a strategic plan to address Rhode Island's overdose epidemic. The *Overdose Prevention Action Plan* focuses on four areas of strategies and interventions to help eliminate overdoses and save lives: prevention, treatment, rescue, and recovery. RIDOH invites municipal leaders to join the State's efforts to save lives and support our fellow Rhode Islanders who have been affected by overdose and addiction.

The Drug Overdose Surveillance Program in the Center for Health Data and Analysis at RIDOH maintains and utilizes multiple sources of overdose-related data. This city/town-specific report, focuses on three sources of data which may be helpful in overdose response planning for your municipality:

1. Emergency department visits;
2. Emergency Medical Services EMS runs; and
3. Fatal overdoses from the Office of State Medical Examiners (OSME).

## Purpose of Report

The purpose of this report is to provide overdose data that may be helpful in informing community-level action. This report may help your community identify target populations and understand how the pattern of overdose in your city/town compares to the relevant county and statewide. We hope you find this report helpful as your Community Overdose Engagement (CODE) Planning Committee continues to develop, implement, and evaluate your local Overdose Action Plan.

## Data Notes and Limitations

**Small numbers:** Counts of less than five have been suppressed per [RIDOH's Small Numbers Policy](http://health.ri.gov/publications/policies/SmallNumbersReporting.pdf) (<http://health.ri.gov/publications/policies/SmallNumbersReporting.pdf>) due to privacy and reliability concerns. Any future use of counts to construct proportions, rates, and other statistics is subject to reliability and privacy verifications. Race and ethnicity data are not shown in this report due to small numbers.

**Emergency Department (ED) Visits:** RIDOH maintains an Opioid Overdose Reporting System, also known as the *48-Hour Reporting System*, which contains overdose reports from EDs in Rhode Island. Under regulation [R23-1-OPIOID](#), RIDOH requires every health professional and every hospital in the state to report all opioid overdoses or suspected opioid overdoses within 48 hours. This includes nonfatal overdoses and any overdose fatalities that occur at the hospital. If a suspected overdose patient is brought to a hospital in a neighboring state, that overdose report may not be captured in Rhode Island's numbers. Municipalities that are located in close proximity to hospitals in Connecticut or Massachusetts may show an under-representation. Source for all ED visit data in this report is 48-Hour Reporting System. Data are current as of June 3, 2019 and are subject to change. Some questions in the 48-Hour Reporting System have changed over time, so the response categories have been re-grouped accordingly.

**Emergency Medical Services (EMS) Runs:** National EMS Information System (NEMSIS) is a nationwide pre-hospital patient care database utilized by licensed ambulance services in Rhode Island. To accurately and systematically identify opioid overdose-related EMS runs, RIDOH developed a case definition (<http://www.health.ri.gov/publications/guidelines/ESOOSCaseDefinitionForEMS.pdf>) of what constitutes an overdose case based on five components:

1. Primary/secondary impression categories;
2. Medication given (dropdown field);
3. Medication response;
4. Mention of naloxone and unresponsive term in narrative report; and
5. Naloxone given prior to EMS.

Source for all EMS data in this report is the Rhode Island Emergency Medical Services Information System (RI-EMSIS). All data are current as of May 10, 2019, and subject to change. Due to a system transition from NEMSIS 2.2.1 to NEMSIS 3.4 in 2017 and early 2018, some information may not yet be entered.

ED and EMS data are both based on the location of the overdose, not the patient's city/town of residence. Differences between ED and EMS data can occur and can be attributed to variations based on reporting completeness, accuracy, timeliness, and case definitions. In addition, a patient may arrive at the emergency department in a manner other than EMS. Statewide, transport refusal for opioid overdose-related EMS runs is less than 1%.

**Fatal Overdoses:** Source for all fatal overdose data in this report is Office of State Medical Examiners (OSME). Data reflect accidental drug overdose deaths when an individual is pronounced dead *in Rhode Island*. The city or town where the overdose occurred can be different than the city or town where the individual was pronounced dead. If the location of the incident was not in Rhode Island or is unknown, the death is not usually included in a geographical count. Variations in unknown city of incident may impact trends. Rhode Island residents who died of accidental drug overdose deaths outside of Rhode Island are not included. County level data may be provided in figures if the city/town level counts were too small to display.

## Municipalities by County

Rhode Island has 39 municipalities which are divided into five counties:

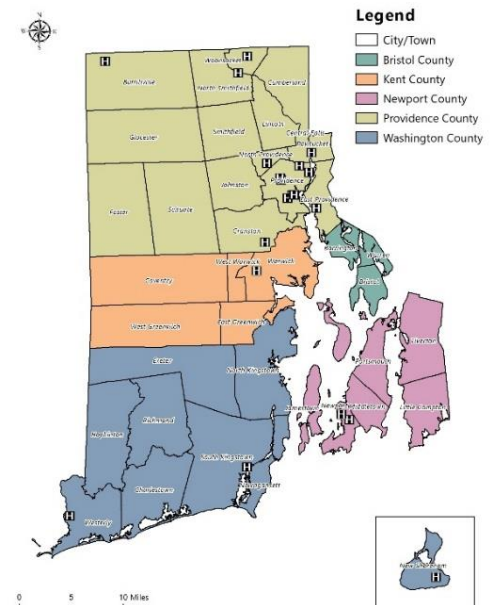
**Bristol County:** Barrington, Bristol, and Warren

**Kent County:** Coventry, East Greenwich, Warwick, West Greenwich, and West Warwick

**Newport County:** Jamestown, Little Compton, Middletown, Newport, Portsmouth, and Tiverton

**Providence County:** Burrillville, Central Falls, Cranston, Cumberland, East Providence, Foster, Glocester, Johnston, Lincoln, North Providence, North Smithfield, Pawtucket, Providence, Scituate, Smithfield, and Woonsocket

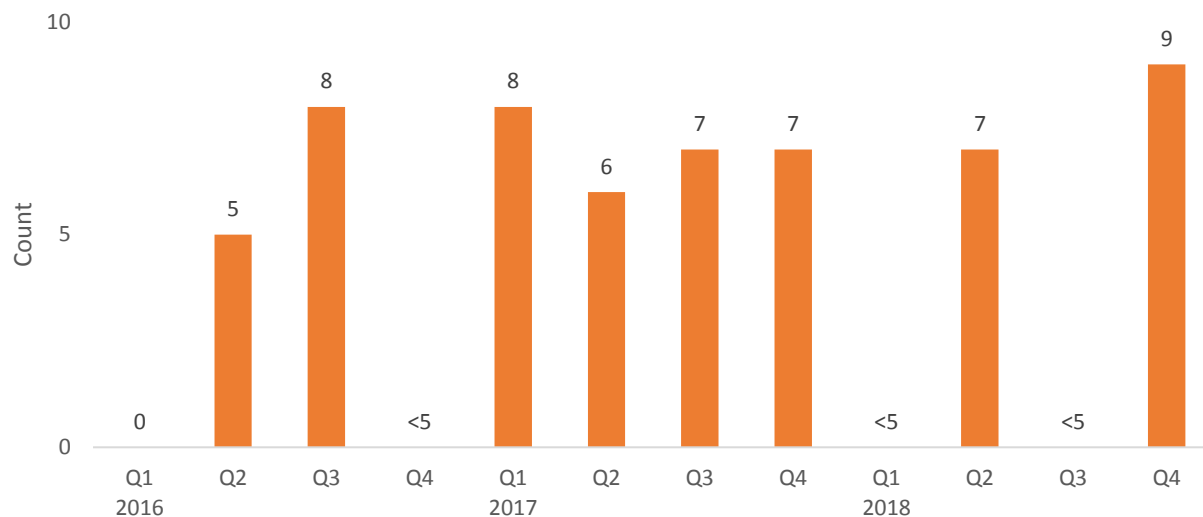
**Washington (South) County:** Charlestown, Exeter, Hopkinton, Narragansett, New Shoreham (Block Island), North Kingstown, Richmond, South Kingstown, and Westerly



## Emergency Department Visits: City, County, and Statewide Trend

Between 2016\* - 2018, Lincoln accounted for 2.3% of opioid overdose-related ED visits in Providence County and 1.6% of the State. The number of opioid overdose-related ED visits in Lincoln increased from 16 in 2016 to 24 in 2018. Percent change not calculated due to incomplete data in 2016.

**Figure 1: Number of Opioid Overdose ED Visits That Occurred in LINCOLN by Quarter, 2016\* - 2018**



\*January 2016 data may be incomplete.

Note: Rhode Island count from 2016-2018 does not include 345 overdoses reported with an "unknown" incident location and 176 overdoses reported with an incident location outside of Rhode Island.

Data Source: 48-Hour Overdose Reporting System

**Table 1: Opioid Overdose ED Visits by Incident Location and Quarter, 2016\* -2018**

Incident Location	2016					2017					2018				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
Lincoln	0	5	8	<5	16	8	6	7	7	28	<5	7	<5	9	24
Providence County	196	294	261	205	956	183	238	278	279	978	215	296	249	268	1,028
Rhode Island	252	425	412	321	1,410	294	364	414	403	1,475	300	390	332	377	1,399

\*January 2016 data may be incomplete.

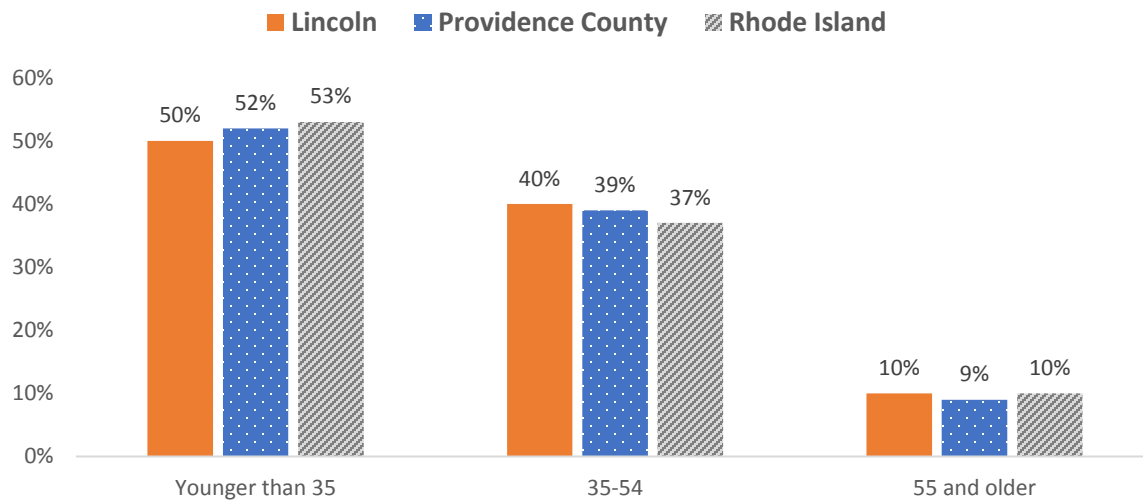
Note: Rhode Island count from 2016-2018 does not include 345 overdoses reported with an "unknown" incident location and 176 overdoses reported with an incident location outside of Rhode Island.

Data Source: 48-Hour Overdose Reporting System

## Emergency Department Visits: Age Group

The percentage of opioid overdose-related ED visits among persons age 55 and older was similar in Lincoln (10%) compared to the statewide percentage (10%).

**Figure 2: Percentage of Opioid Overdose ED Visits by Age Group and Incident Location, 2016\* - 2018**



\*January 2016 data may be incomplete.

Note: Percentages may not total to 100% due to rounding.

Data Source: 48-Hour Overdose Reporting System

**Table 2: Opioid Overdose ED Visits by Age Group and Incident Location, 2016\* - 2018**

Incident Location	Younger than 35	35-54	55 or older	Total
Lincoln	34 (50%)	27 (40%)	7 (10%)	68 (100%)
Providence County	1,535 (52%)	1,146 (39%)	281 (9%)	2,962 (100%)
Rhode Island	2,274 (53%)	1,581 (37%)	429 (10%)	4,284 (100%)

\*January 2016 data may be incomplete.

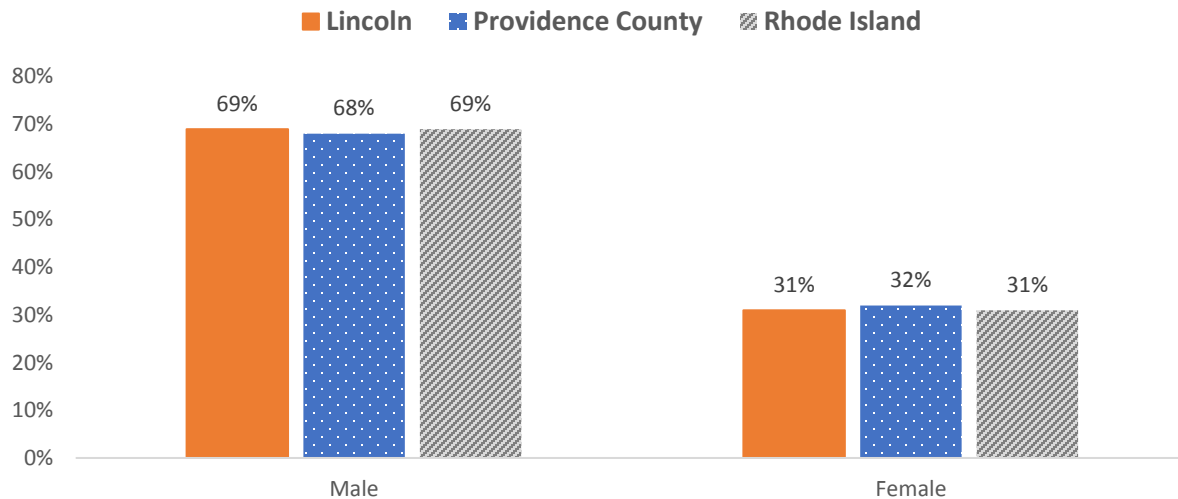
Note: Percentages may not total to 100% due to rounding.

Data Source: 48-Hour Overdose Reporting System

## Emergency Department Visits: Sex

Of the persons who experienced an opioid overdose in Lincoln between 2016-2018, a higher proportion were male (69%), compared to female (31%). This is similar to the distribution seen in Providence County and in the State.

**Figure 3: Opioid Overdose ED Visits by Sex and Incident Location, 2016\* - 2018**



\*January 2016 data may be incomplete.

Note: Percentages may not total to 100% due to rounding.

Data Source: 48-Hour Overdose Reporting System

**Table 3: Opioid Overdose ED Visits by Sex and Incident Location, 2016\* - 2018**

Location	Male	Female	Transgender	Total
Lincoln	47 (69%)	27 (31%)	0 (0%)	68 (100%)
Providence County	2,013 (68%)	946 (32%)	<5	2,962 (100%)
Rhode Island	2,950 (69%)	1,328 (31%)	6 (0.2%)	4,284 (100%)

\*January 2016 data may be incomplete.

Note: Percentages may not total to 100% due to rounding.

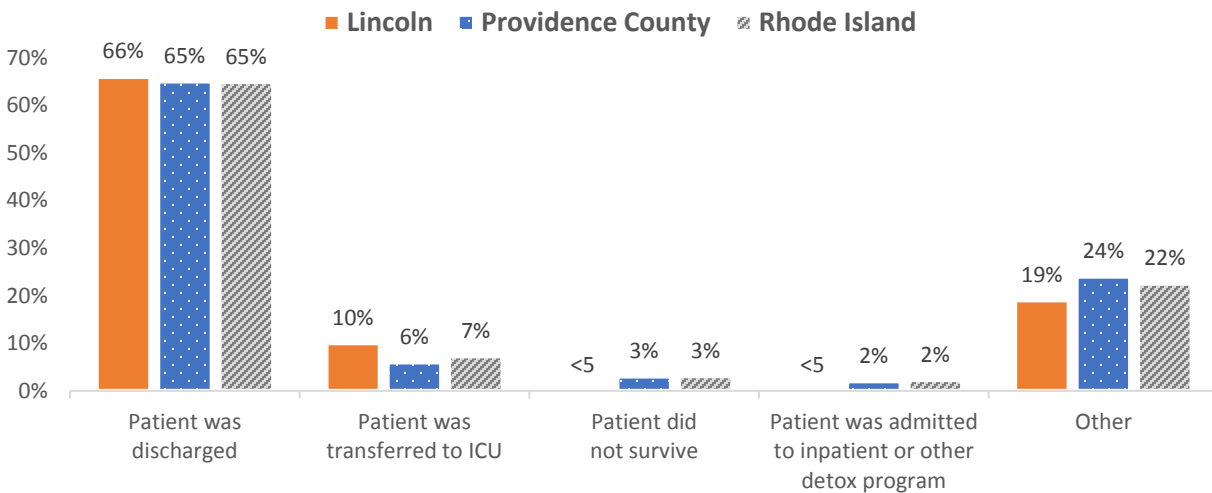
Data Source: 48-Hour Overdose Reporting System



## Emergency Department Visits: Patient Outcome

Of the persons who experienced an opioid overdose in Lincoln, a slightly higher percentage were discharged (66%) compared to the statewide total (65%), and a higher percentage were transferred to the ICU (10%) compared to statewide totals (7%). This information is not specific to hospitals within your town. See page 10 for information on which hospitals patients presented at.

**Figure 4: Opioid Overdose ED Visits by Patient Outcome and Incident Location, 2016\* - 2018**



\*January 2016 data may be incomplete.

Note: The category "other" includes patient left against medical advice (AMA), patient left without being treated, patient was admitted to an inpatient floor, patient was transferred to another facility, the outcome after patient's survival was unknown, and unknown. Percentages may not total to 100% due to rounding.

Data Source: 48-Hour Overdose Reporting System

**Table 4: Opioid Overdose ED Visits by Patient Outcome and Incident Location, 2016\* - 2018**

Incident Location	Patient discharged	Patient transferred to ICU	Patient did not survive	Patient admitted to detox program (inpatient or other)	Other	Total
Lincoln	45 (66%)	7 (10%)	<5	<5	13 (19%)	68 (100%)
Providence County	1,925 (65%)	183 (6%)	82 (3%)	62 (2%)	710 (24%)	2,962 (100%)
Rhode Island	2,781 (65%)	308 (7%)	133 (3%)	96 (2%)	966 (23%)	4,284 (100%)

\*January 2016 data may be incomplete.

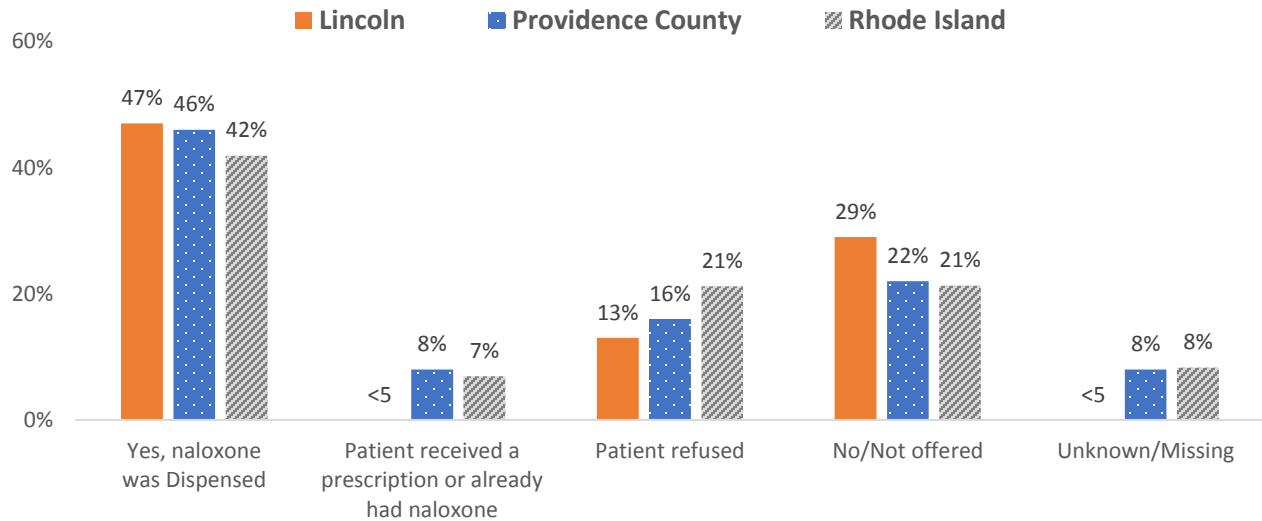
Note: The category "other" includes patient left against medical advice (AMA), patient left without being treated, patient was admitted to an inpatient floor, patient was transferred to another facility, the outcome after patient's survival was unknown, and unknown. Percentages may not total to 100% due to rounding.

Data Source: 48-Hour Overdose Reporting System

## Emergency Department Visits: Naloxone Distribution at Discharge

Among persons who experienced an opioid overdose in Lincoln and were discharged from an ED, 47% received naloxone. This is higher than the statewide percentage.

**Figure 5:** Naloxone Distribution Status to Patients Discharged from ED after Opioid Overdose by Incident Location, 2016\* - 2018



\*January 2016 data may be incomplete.

Note: Percentages may not total to 100% due to rounding.

Data Source: 48-Hour Overdose Reporting System

**Table 5:** Naloxone Distribution Status to Patients Discharged from ED after Opioid Overdose by Incident Location, 2016\* - 2018

Incident Location	Yes, naloxone was dispensed	Patient received a prescription or already had naloxone	Patient refused	No/Not offered	Unknown/Missing	Total
Lincoln	21 (47%)	<5	6 (13%)	13 (29%)	<5	45 (100%)
Providence County	876 (46%)	154 (8%)	303 (16%)	430 (22%)	162 (8%)	1,925 (100%)
Rhode Island	1,165 (42%)	202 (7%)	590 (21%)	593 (21%)	231 (8%)	2,781 (100%)

\*January 2016 data may be incomplete.

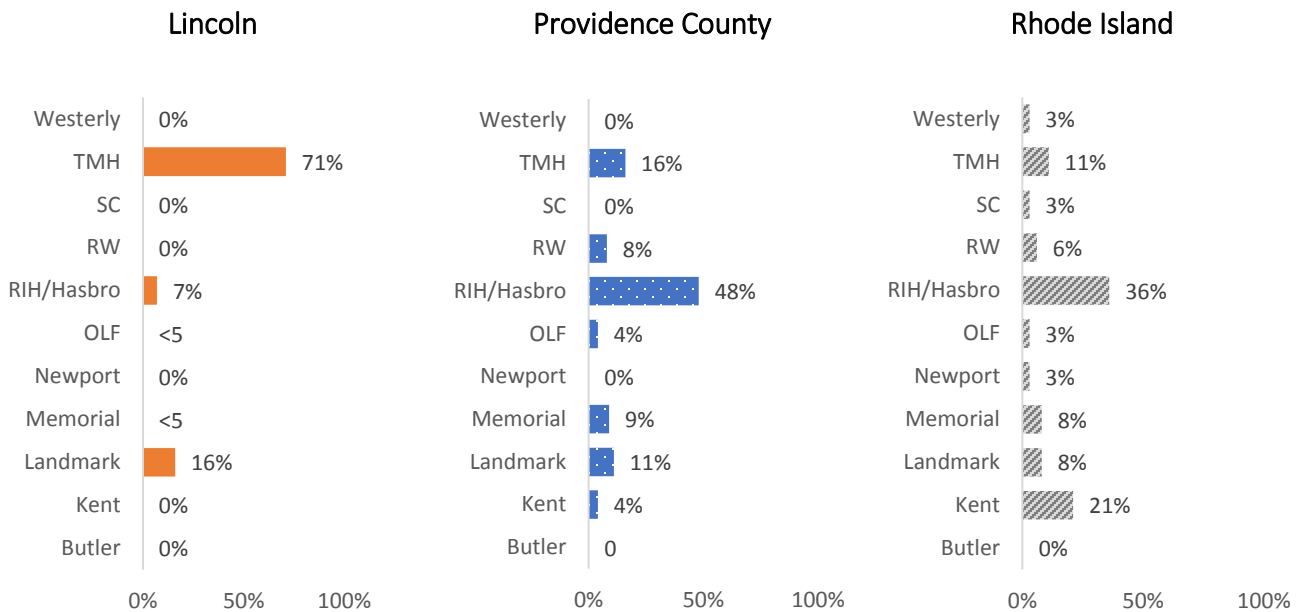
Note: Percentages may not total to 100% due to rounding.

Data Source: 48-Hour Overdose Reporting System

## Emergency Department Visits: Hospital Treatment Site

Among persons who experienced an opioid overdose in the city of Lincoln, 71% were treated at The Miriam Hospital.

**Figure 6: Opioid Overdose ED Visits by Incident Location and Hospital, 2016\* - 2018**



\*January 2016 data may be incomplete.

Note: Memorial Hospital closed as of January 1, 2018. RIH: Rhode Island Hospital, RW: Roger Williams Hospital, OLF: Our Lady of Fatima, SC: South County Hospital, TMH: The Miriam Hospital. Percentages may not total to 100% due to rounding.

Data Source: 48-Hour Overdose Reporting System

**Table 6: Opioid Overdose ED Visits by Incident Location and Hospital, 2016\* - 2018**

Incident Location	Butler	Kent	Land-mark	Memorial	New-port	OLF	RIH/Hasbro	RW	SC	TMH	West-erly	Total
Lincoln	0%	0%	16%	<5	0%	<5	7%	0%	0%	71%	0%	100%
Providence County	<1%	4%	11%	9%	0%	4%	48%	8%	0%	16%	0%	100%
Rhode Island	0.14%	21%	8%	8%	3%	3%	36%	6%	3%	11%	3%	100%

\*January 2016 data may be incomplete.

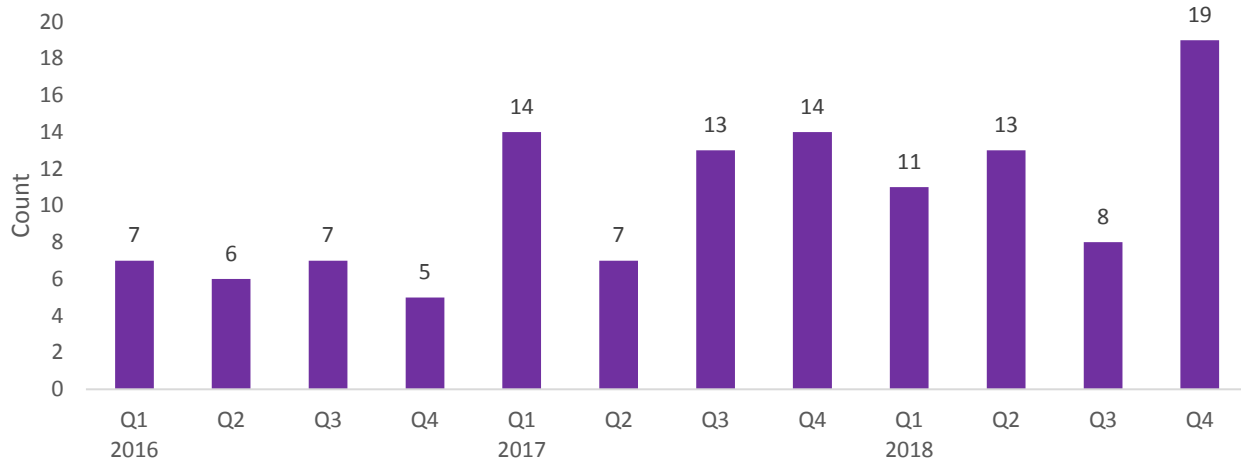
Note: Memorial Hospital closed as of January 1, 2018. RIH: Rhode Island Hospital, RW: Roger Williams Hospital, OLF: Our Lady of Fatima, SC: South County Hospital, TMH: The Miriam Hospital. Percentages may not total to 100% due to rounding.

Data Source: 48-Hour Overdose Reporting System

## Emergency Medical Services Runs: City, County, and Statewide Trend

In 2016, 2017, and 2018, Lincoln has consistently accounted for less than 5% of opioid overdose-related EMS runs in Providence County and the State.

**Figure 7: Opioid Overdose-Related EMS Runs That Occurred in LINCOLN by Quarter, 2016 - 2018**



Data Source: RI-EMSIS

**Table 7: Opioid Overdose-Related EMS Runs by Incident Location and Quarter, 2016 - 2018**

Incident Location	2016					2017					2018				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
<b>Lincoln</b>	7	6	7	5	25	14	7	13	14	48	11	13	8	19	51
<b>Providence County</b>	249	356	328	297	1230	302	294	283	250	1129	200	288	269	312	1069
<b>Rhode Island</b>	348	489	408	392	1637	377	388	395	350	1510	288	409	383	422	1502

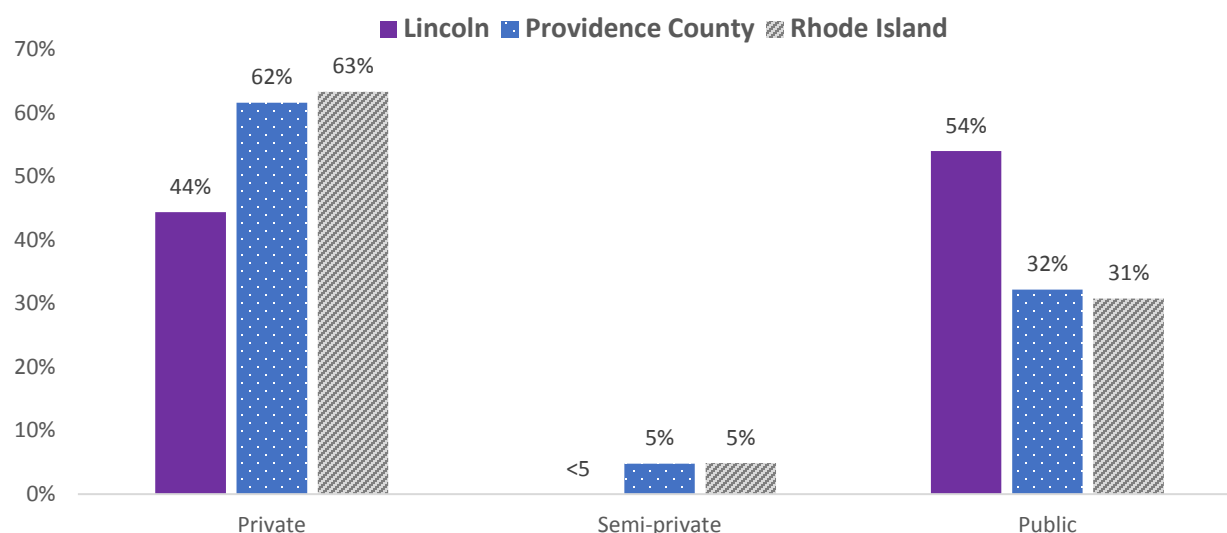
Data Source: RI-EMSIS

## Emergency Medical Services Runs: Location Type

Private settings are areas such as personal residence. Semi-private includes places such as hospitals, assisted living facilities, nursing homes, prisons, residential institutions, and hotels/motels. Public locations include a variety of settings, such as streets, parking lots, parks, restaurants, or stores.

The majority of opioid overdoses in Lincoln occurred in a public setting. The percentage of opioid overdoses in public settings was higher in Lincoln than in Providence County or the State.

**Figure 8: Opioid Overdose-Related EMS Runs by Incident Location Type, 2016 - 2018**



Data Source: RI-EMSIS

Note: For EMS runs by incident location, unknown incident location accounted for 0.8% of opioid overdoses in Lincoln, 1.3% of opioid overdoses in Providence County, and 1.0% of opioid overdoses in the State. Percentages may not total to 100% due to rounding.

**Table 8: Opioid Overdose-Related EMS Runs by Incident Location Type, 2016 - 2018**

Location	Private	Semi-private	Public	Total
Lincoln	55 (44%)	<5	67 (54%)	124 (100%)
Providence County	2,113 (62%)	66 (5%)	1,105 (32%)	3,428 (100%)
Rhode Island	2,940 (63%)	227 (5%)	1,434 (31%)	4,649 (100%)

Data Source: RI-EMSIS

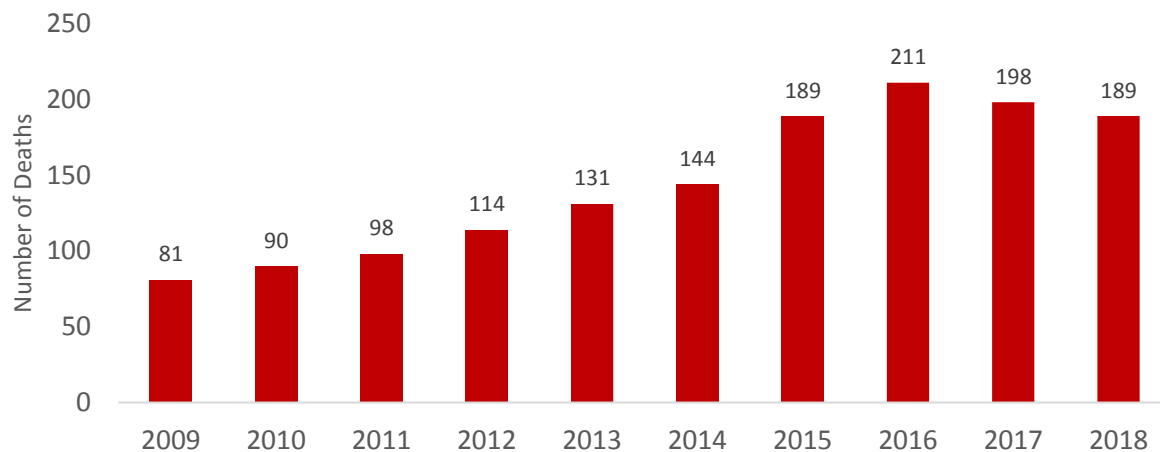
Note: For EMS runs by incident location, unknown incident location accounted for 0.8% of opioid overdoses in Lincoln, 1.3% of opioid overdoses in Providence County, and 1.0% of opioid overdoses in the State. Percentages may not total to 100% due to rounding.

## Fatal Overdoses: City, County, and Statewide Trend

From 2016 to 2018, six Lincoln residents died of an accidental drug overdose in Rhode Island, but not all necessarily died within Lincoln.

Statewide, accidental drug overdose deaths in Rhode Island have decreased by 6.5% since 2016. From 2016 to 2018, 85% of deaths in the state were opioid-involved.

**Figure 9:** *Accidental Drug Overdose Deaths by year, 2009 - 2018: PROVIDENCE COUNTY Residents*



Data Source: OSME

**Table 9:** *Accidental Drug Overdose Deaths by Location and Year, 2009 - 2018*

Lincoln	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Resident Count	0	<5	9	<5	<5	<5	<5	<5	<5	<5
Incident Count	0	<5	0	<5	<5	<5	<5	<5	<5	5
Providence County										
Resident Count	81	90	98	114	131	144	189	211	198	189
Incident Count	73	80	83	88	122	148	198	216	192	191
Rhode Island										
Total Residents	128	142	160	176	210	221	268	295	294	279
Total Incidents	138	153	173	183	232	240	290	336	324	314

Data Source: OSME

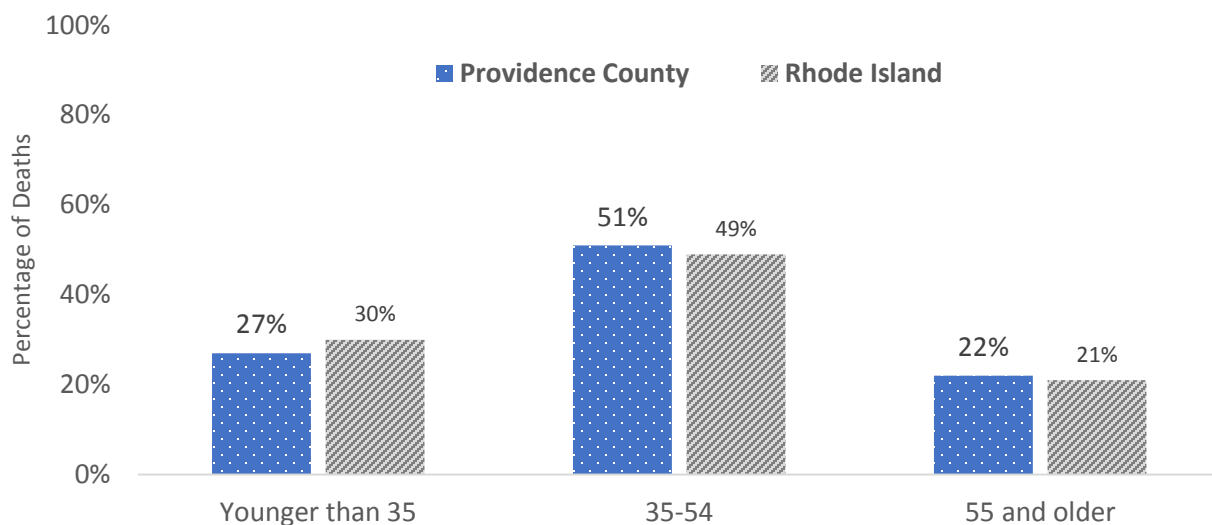
Note: Total residents reflects counts of accidental drug overdose deaths that occurred in Rhode Island among known Rhode Island residents. Total incidents reflect counts of accidental drug overdose deaths that occurred in Rhode Island but may include residents of other states.

## Fatal Overdoses: Age Group

Between 2016 and 2018, the highest percentage of Providence County residents who died of an accidental drug overdose in Rhode Island were between the ages of 35 and 54 (51%). The distribution of age categories among Providence County residents who died of an accidental drug overdose was similar to the statewide distribution. Municipal level data not shown due to small numbers.

Statewide, between 2016 and 2018, the decrease in accidental drug overdose deaths was not consistent across all age groups. The percentage of fatal overdoses in persons age 35-44 and age 55 and older increased during this time. Due to small numbers, trends in age group by municipality are not included in this report.

**Figure 10:** *Accidental Drug Overdose Deaths by Resident Location and Age Group, 2016 - 2018*



Data Source: OSME

Note: Percentages may not total to 100% due to rounding.

**Table 10:** *Accidental Drug Overdose Deaths by Resident Location and Age Group, 2016 - 2018*

Resident Location	Younger than 35	35-54	55 and older	Total
Lincoln	<5	<5	<5	6 (100%)
Providence County	162 (27%)	304 (51%)	132 (22%)	598 (100%)
Rhode Island	262 (30%)	425 (49%)	181 (21%)	868 (100%)

Data Source: OSME

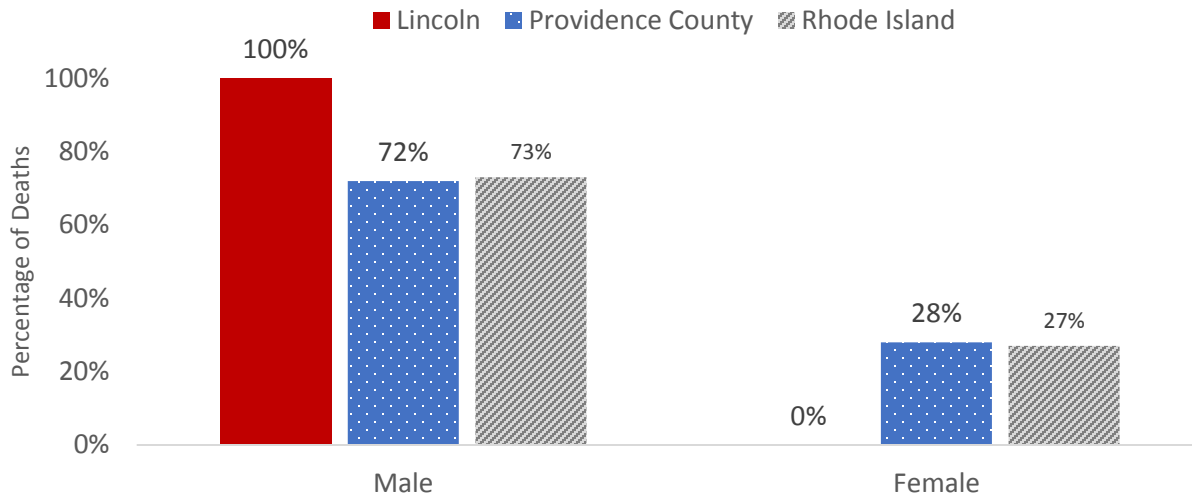
Note: Percentages may not total to 100% due to rounding.

## Fatal Overdoses: Sex

From 2016-2018, all of the accidental overdose deaths among Lincoln residents occurred among males.

Statewide, between 2016 and 2018, the percentage of accidental drug overdose deaths by sex remained consistent.

**Figure 11:** *Accidental Drug Overdose Deaths by Sex and Resident Location, 2016 - 2018*



Data Source: OSME

Note: Percentages may not total to 100% due to rounding.

**Table 11:** *Accidental Drug Overdose Deaths by Sex and Resident Location, 2016 - 2018*

Resident Location	Male	Female	Total
Lincoln	6 (100%)	0 (0%)	6 (100%)
Providence County	433 (72%)	165 (28%)	598 (100%)
Rhode Island	636 (73%)	232 (27%)	868 (100%)

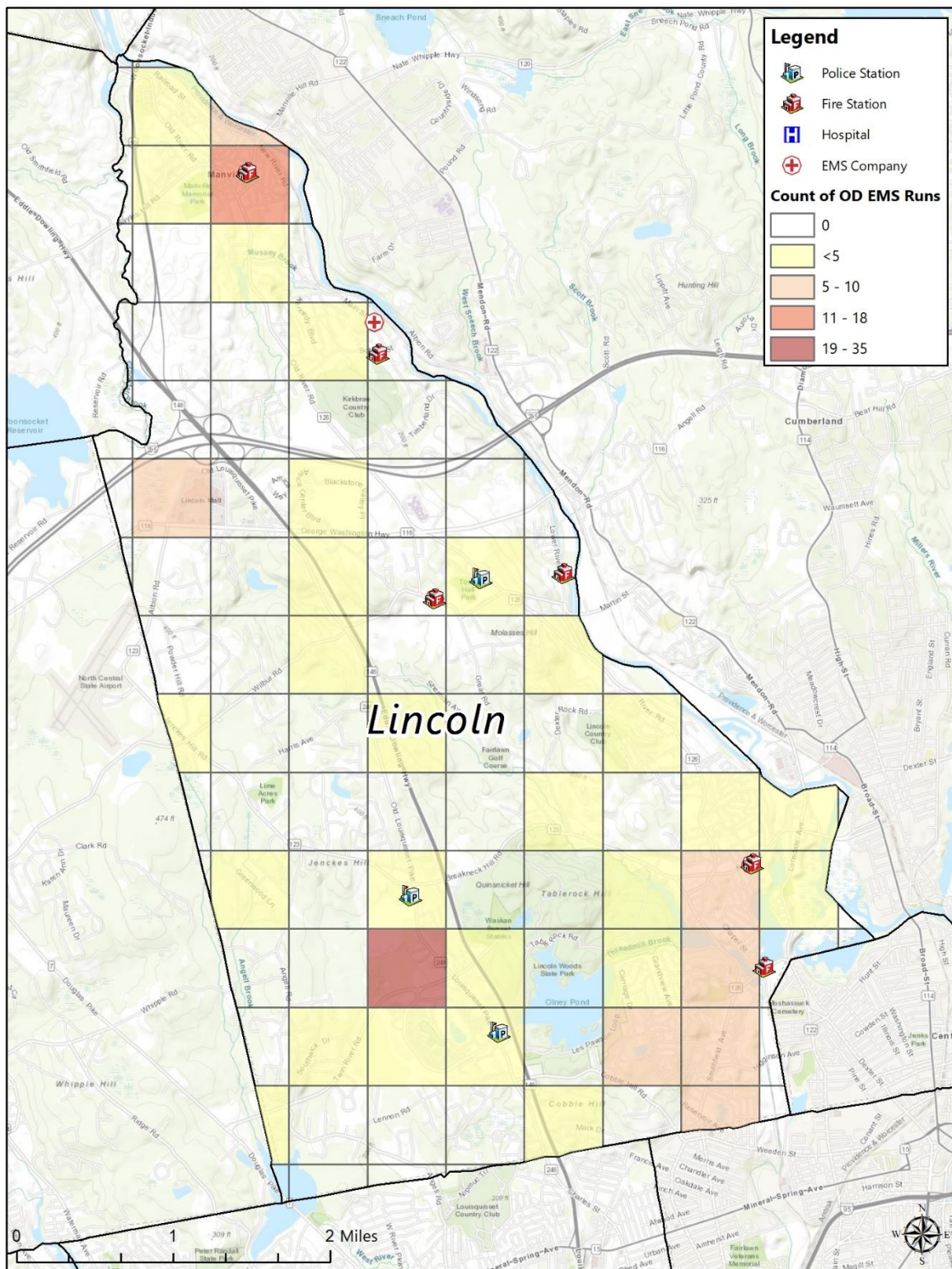
Data Source: OSME

Note: Percentages may not total to 100% due to rounding.



# Emergency Medical Services Runs: City-Specific Map

**Map 1: Location of Opioid Overdose-Related EMS Runs by Half Square Mile Grid in Lincoln, 2016 - 2018**

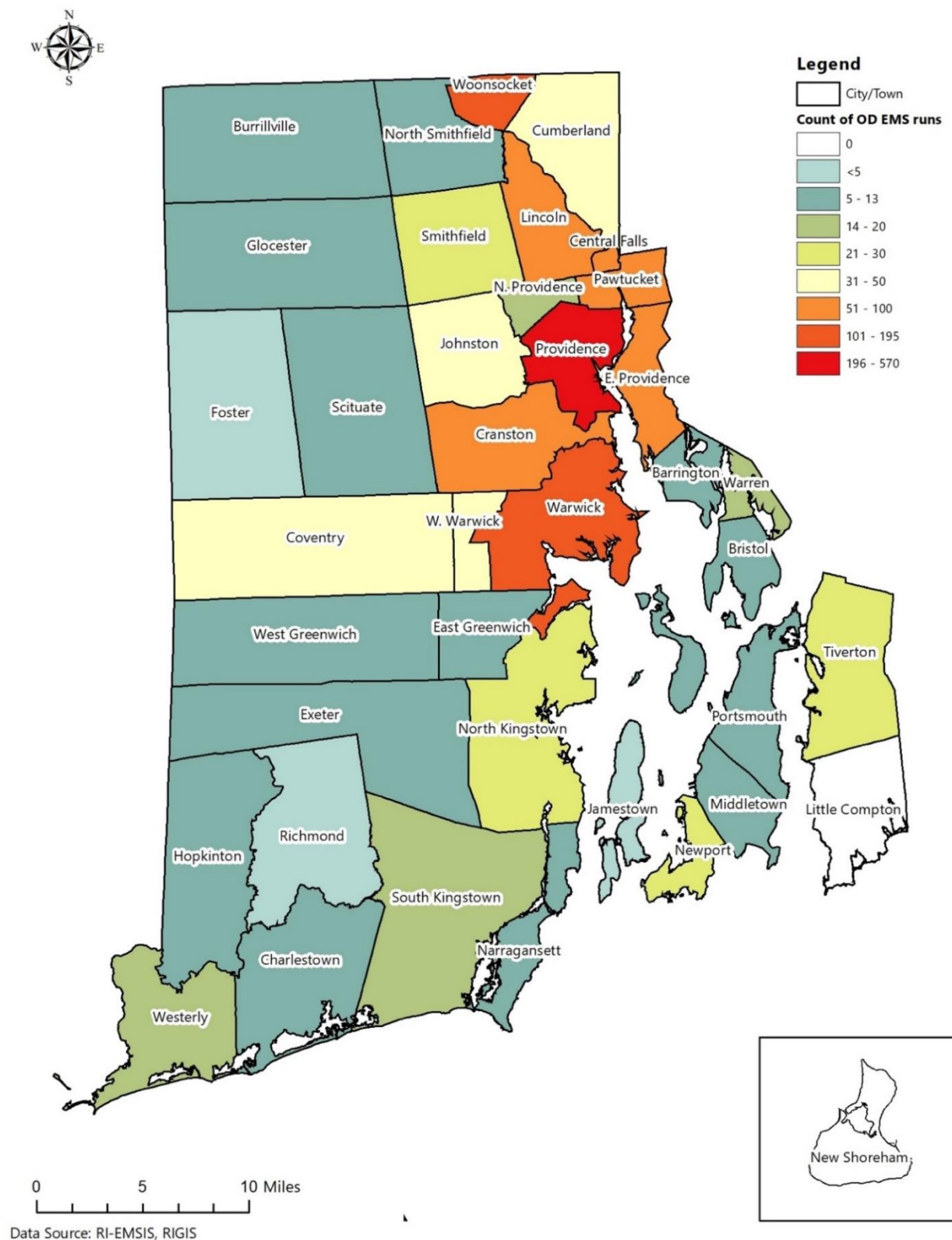


Data source: RI-EMSIS; RIGIS

Note: Each map has its own data source and its own definition for the denominator. Therefore, an individual city/town data map may provide different results and look different than the city/town shown in comparison to all municipalities in the State.

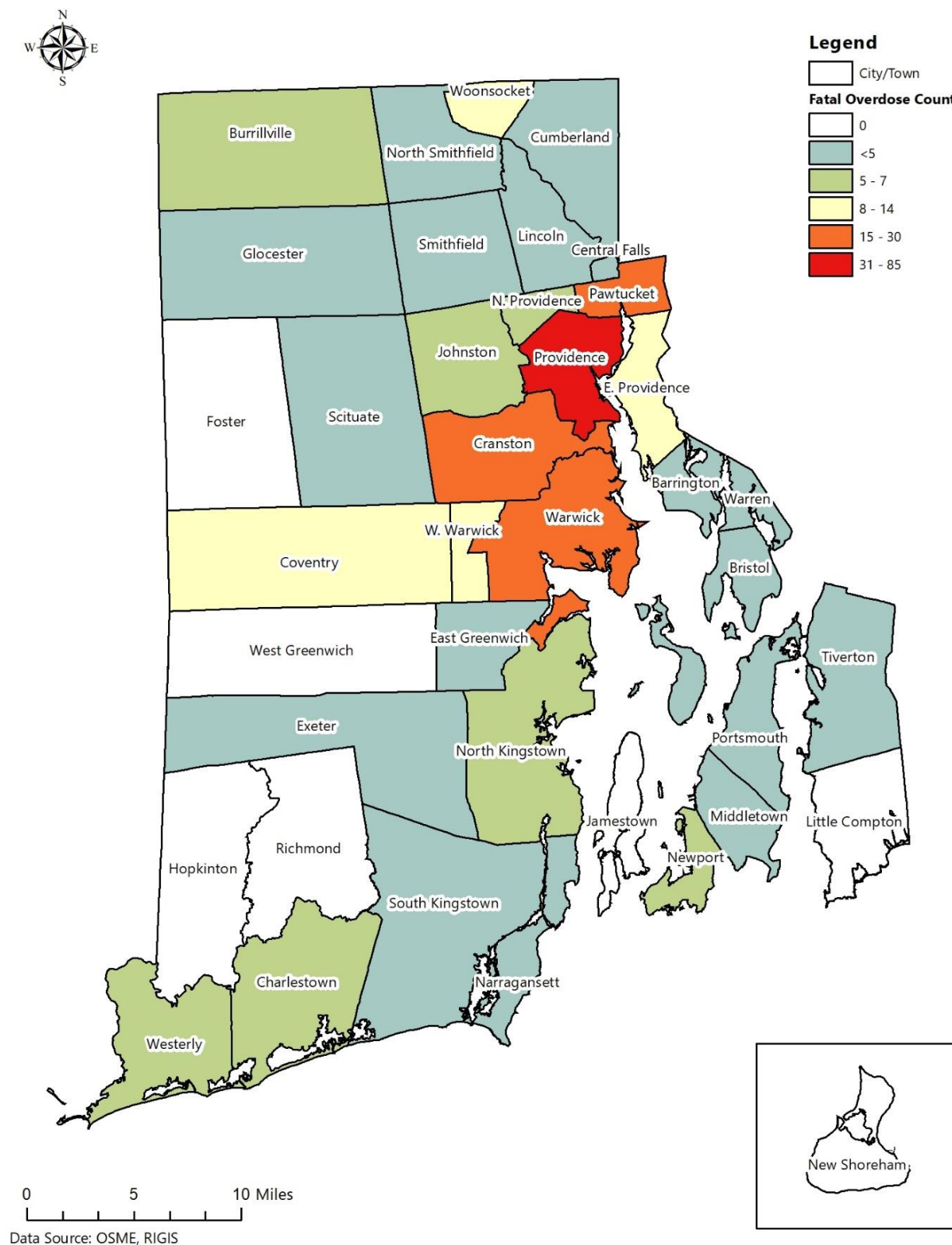
# Emergency Medical Services Runs: City/Town Map

**Map 2: Opioid Overdose-Related EMS Runs by City/Town of Incident, 2018 (n=1,500)**



# Fatal Overdoses: City/Town Map

**Map 3: Fatal Overdose Counts by City/Town of Residence, 2018 (n=279)**



Note: Fatal overdose count only includes Rhode Island residents.



## More Information

- For overdose-related data questions, contact:  
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- To find resources on Rhode Island's *Overdose Prevention Action Plan* and local treatment and recovery support services, visit **PreventOverdoseRI.org**.



In coordination with:

Governor Raimondo's Task Force on Overdose Prevention and Intervention



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