

NON-FATAL OPIOID OVERDOSE SURVEILLANCE

2018 Q4 REPORT



Florida Department of Health: Enhanced State Opioid Overdose Surveillance

FLESOOS.com

1 / FLORIDA 2018 Q4

The purpose of this report is to describe and identify non-fatal (morbidity) geographically-specific and other statistically significant changes in the rate of **all drug** and **opioid-involved overdoses**, which occurred in Florida during 2018 Q4 (October–December). Non-fatal overdose data were analyzed by the Florida Department of Health’s Enhanced State Opioid Overdose Surveillance Program, using Florida’s Emergency Medical Services Tracking and Reporting System (EMSTARS) data.

Key Findings in Florida 2018 Q4:

- All drug and opioid-involved overdose EMS transports peaked on December 29, 2018 at 136 and 53, respectively.
- 2.11% of all 2018 Q4 EMS runs, or 8477 events, are related to non-fatal all drug overdoses; where 0.77%, or 3078 events, are related to non-fatal opioid-involved overdose.
- Non-fatal all drug overdose rate decreased 1.94% from 2017 Q4 to 45.4 per 100,000 persons.
- Non-fatal opioid-involved overdose rate declined 5.17% from 2017 Q4 to 16.5 per 100,000 persons.
- Between 2016 Q4 through to 2018 Q4, a significant downward trend in overdose rate was observed for opioids but not all-drugs.
- Persons aged 25-34 years were more likely than any other age group to experience either all drug or opioid-involved non-fatal overdoses.
- Between 2016 Q4 through to 2018 Q4, a significant downward trend in opioid overdose rate was observed among the 15-24 and 65-74-year age groups; further, when stratifying by sex, only males 15-24 years were significantly declining in rate.
- In descending order, the most substantial number of non-fatal all drug overdose occurred in Hillsborough, Pinellas, Palm Beach, Orange, and Miami-Dade counties. The highest rates, in descending order, occurred in Alachua, Escambia, Taylor, Brevard, and Bradford counties.
- In descending order, the most substantial numbers of non-fatal opioid-involved overdoses occurred in Pinellas, Palm Beach, Brevard, Hillsborough, and Orange counties. The highest rates, in descending order, occurred in Pinellas, Brevard, Escambia, Union, and Palm Beach counties.

Non-fatal Overdose (Morbidity), Florida 2018 Q4

DATA SOURCE

Non-fatal overdose counts were derived from Florida's EMSTARS database, which receives information from EMS agencies that represent greater than 90% of the total number of prehospital EMS runs in Florida.

CASE DEFINITIONS

	EMSTARS V (1.4)	EMSTARS V (3)
<i>All drug overdose</i>	The primary or secondary impression is "Poisoning/Drug Ingestion," or any case where the medication administered is naloxone, and the patient exhibits a positive response, no matter the primary or secondary impression listed.	The primary or secondary impression is any of the following ICD-10 CM "T36 - T50, F11 - F16, F18 - F19" codes.
<i>Opioid-involved overdose</i>	The medication administered is naloxone and patient exhibits positive response, no matter the primary or secondary impression listed.	The primary or secondary impression of any of the following ICD-10 CM "T40.1 - T40.4, T40.60, T40.69, F11" codes.

OTHER DEFINITIONS OR LIMITATIONS

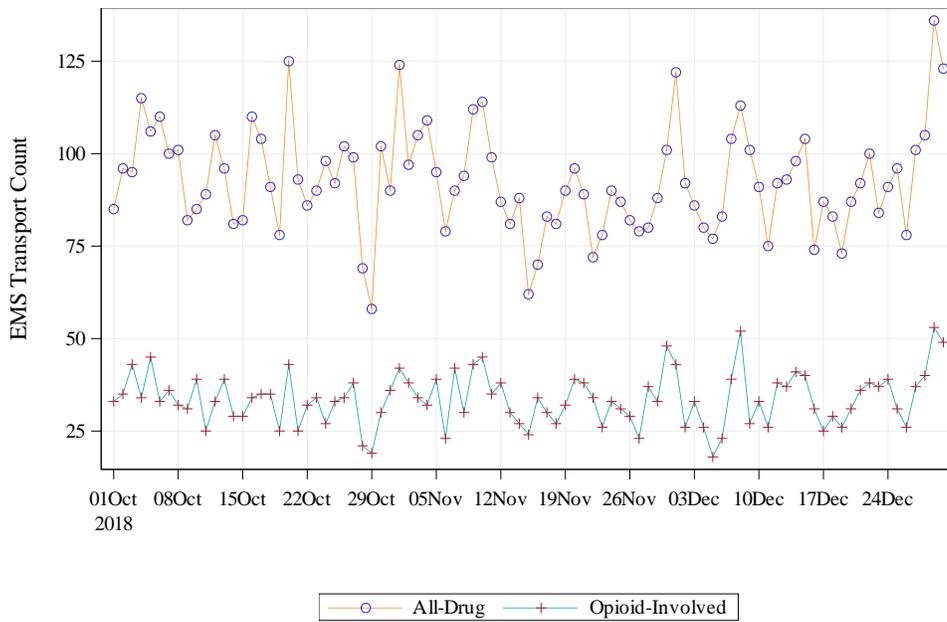
EMS transports indicate the incident-patient record meets the following criteria: 1) are responding to an emergency medical situation (e.g., response to 9-1-1 call) and transported to a hospital; or 2) are responding to an emergency medical situation where the patient was treated and refused transport to the hospital; 3) exclude EMS transfers when a patient is transferred between hospitals or medical care facilities; 4) exclude children 10 years of age or younger.

Rates per 100,000 persons were estimated using data from the 2016 U.S. Census Bureau, 2012–2016 American Community Survey 5-Year Estimates. In 2016, the estimated population of Florida ≥ 11 years of age was 18,109,300. Further, the U.S. Census Bureau estimated an annual increase of 1.5% for the Floridian population until 2020. For 2018, we estimated the population of Florida ≥ 11 years of age to be 18,675,035.

ICD-10 CM CODE DESCRIPTION

Poisoning by: T36-T50 (range includes all drugs), T40.1 (heroin), T40.2 (other opioids), T40.3 (methadone), T40.4 (other synthetic narcotics), T40.60 (unspecified narcotics), T40.69 (other narcotics), F11 (opioid related), F12 (cannabis related), F13 (sedative, hypnotic, or anxiolytic related), F14 (cocaine related), F15 (other stimulant related), F16 (hallucinogen related), F18 (inhalant related), and F19 (other psychoactive substance related).

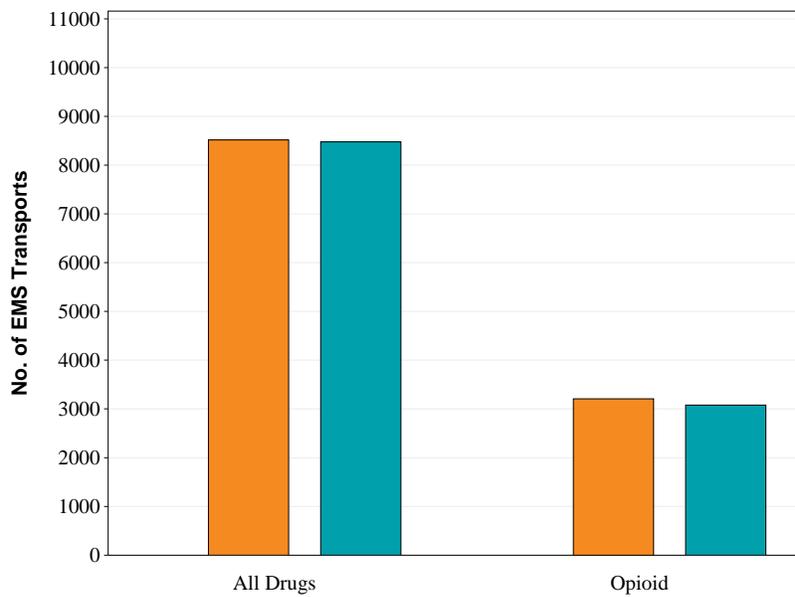
Figure 1. 2018 Q4 Florida Non-fatal Overdose Count Through Time



Note: Opioid may include prescription or illicit opioids. Categories are not mutually exclusive.

All drug and opioid-involved overdose EMS transports peaked on December 29, 2018 at 136 and 53, respectively (see **Figure 1**).

Figure 2. Non-fatal Overdose by Year and Drug Type, Florida 2017 Q4-2018 Q4

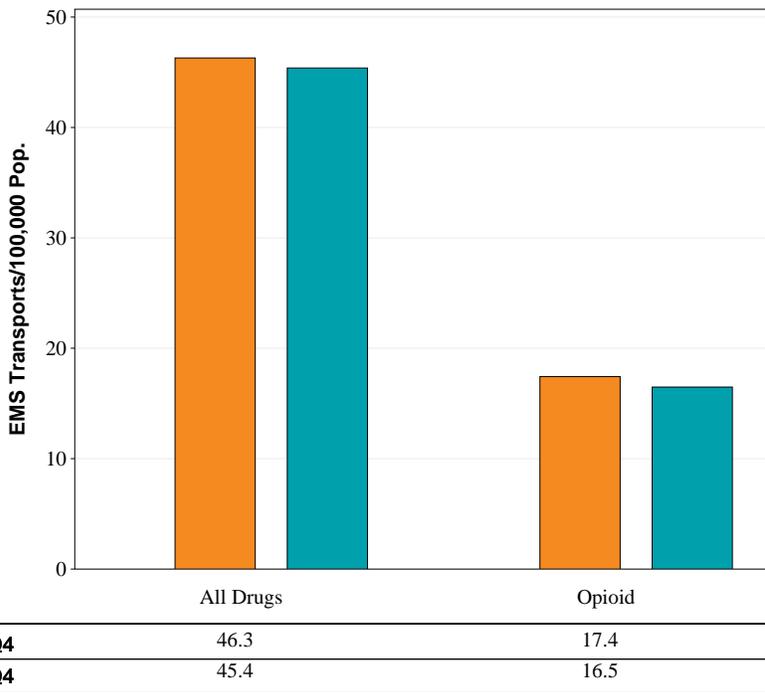


2017 Q4	8,517	3,207
2018 Q4	8,477	3,078

Note: Opioid may include prescription or illicit opioids. Categories are not mutually exclusive.

8477 total non-fatal all drug overdose occurrences were counted for 2018 Q4, 40 less than 2017 Q4. Likewise, 3078 non-fatal opioid-involved overdoses were observed, 129 less than 2017 Q4 (see **Figure 2**). 2.11% of all 2018 Q4 EMS runs are related to all non-fatal drug overdoses, a non-significant difference from 2.14% of all 2017 Q4 EMS runs. 0.77% of all 2018 Q4 EMS runs are related to non-fatal opioid-involved overdoses, a non-significant difference from 0.80% of all 2017 Q4 EMS runs.

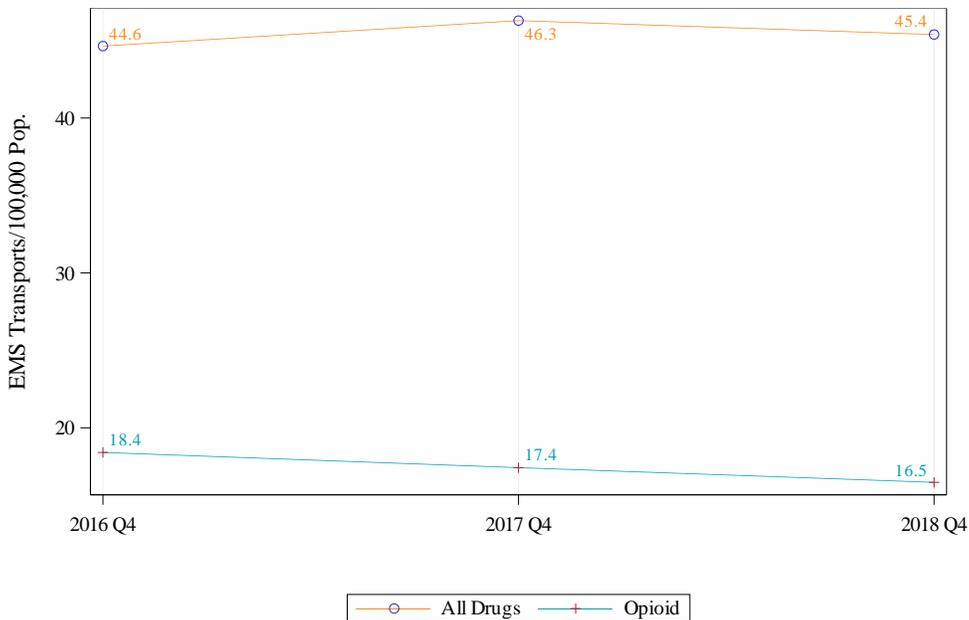
Figure 3. Non-fatal Overdose Rate by Drug Type and Year, Florida 2017 Q4-2018 Q4



Note: Opioid may include prescription or illicit opioids. Categories are not mutually exclusive.

The estimated 2018 Q4 non-fatal all drug overdose rate is 45.4 per 100,000 persons. A 1.94% rate decrease from 2017 Q4. Non-fatal opioid-involved 2018 Q4 overdose rate is estimated at 16.5 per 100,000 persons. A 5.17% rate decline from 2017 Q4.

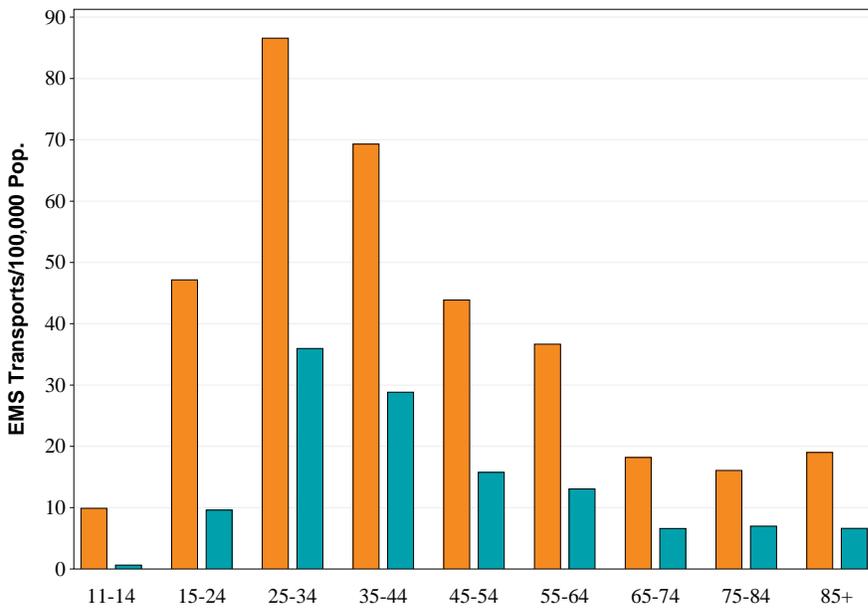
Figure 4. Florida Non-fatal Overdose Rate Trends by Drug Type and Year Quarter



Note: Opioid may include prescription or illicit opioids. Categories are not mutually exclusive.

Between 2016 Q4, 2017 Q4, and 2018 Q4, a significant downward trend was observed among opioid-involved overdose rates but not all drug overdose rates (see **Figure 4**).

Figure 5. Non-fatal Overdose Rate by Age and Drug Type, Florida 2018 Q4

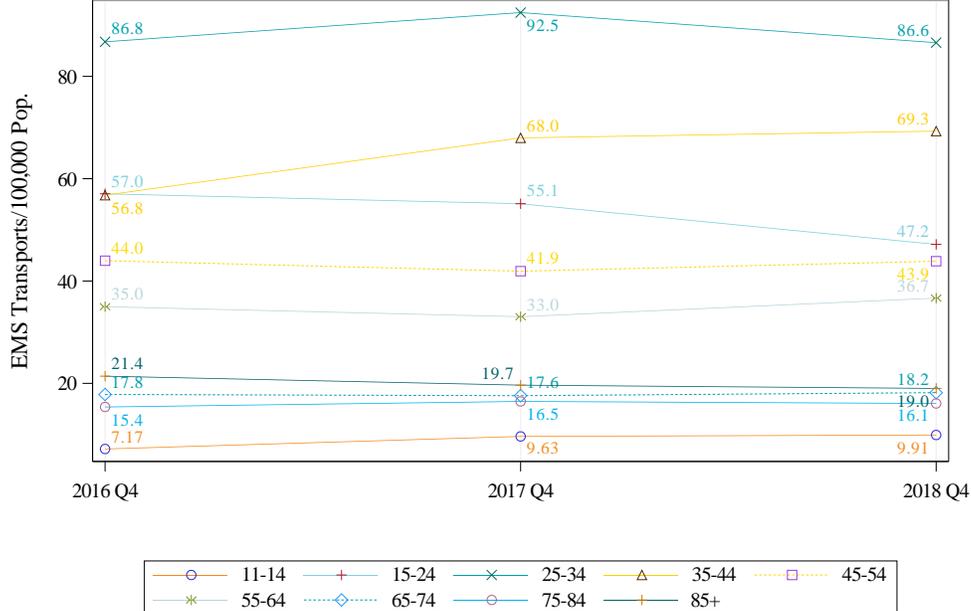


■ All Drugs	9.9	47.2	86.6	69.3	43.9	36.7	18.2	16.1	19.0
■ Opioid	0.6	9.6	36.0	28.8	15.8	13.0	6.6	7.0	6.6

Note: Opioid may include prescription or illicit opioids. Categories are not mutually exclusive.

Persons aged 25-34 years were at the highest risk than any other age category for both all non-fatal drug and opioid-involved overdose (see **Figure 5**).

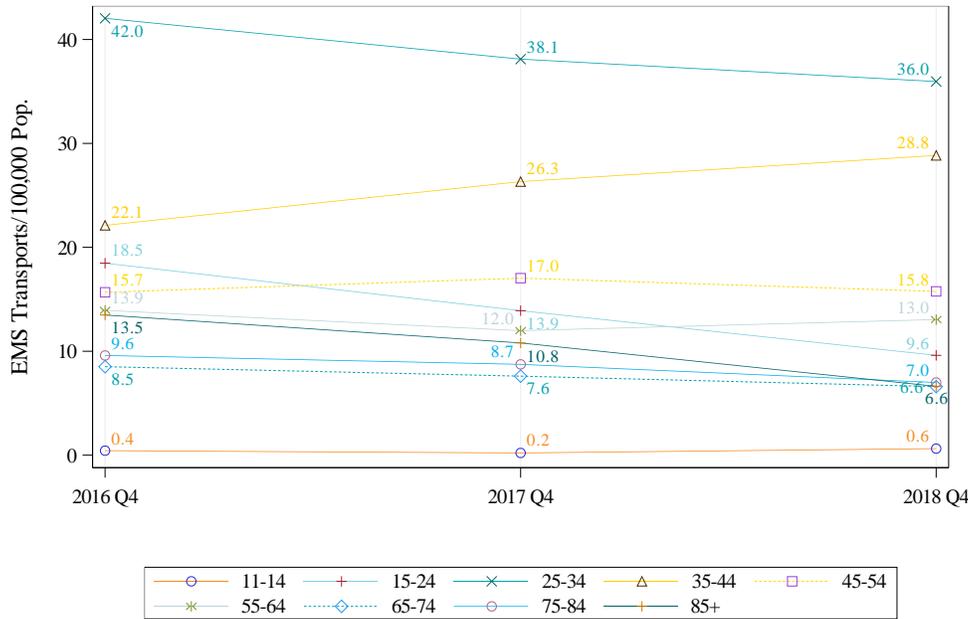
Figure 6. Florida Non-fatal All Drug Overdose Trends by Age Group and Year



Note: Opioid may include prescription or illicit opioids.

From 2016 Q4 to 2018 Q4, all non-fatal drug overdose rate trends were not significantly observed among all age groups (see **Figure 6**).

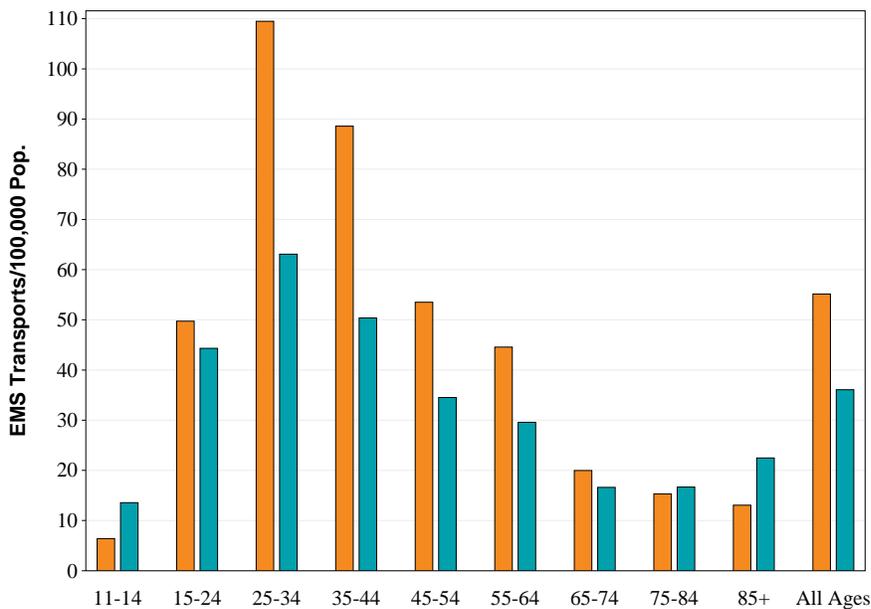
Figure 7. Florida Non-fatal Opioid-Involved Overdose Trends by Age Group and Year



Note: Opioid may include prescription or illicit opioids.

From 2016 Q4 to 2018 Q4, statistically significant opioid-involved rate trends were observed for 15-24 and 65-74-year age groups (see **Figure 7**).

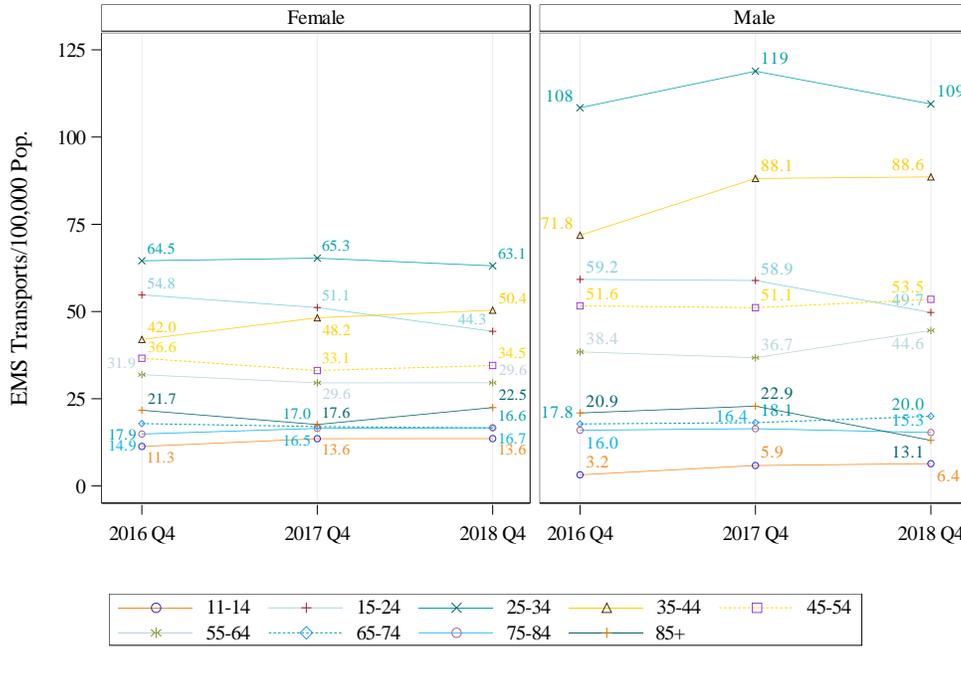
Figure 8. Non-fatal Any Drug Overdose Rate by Sex and Age, Florida 2018 Q4



Note: All Ages: 11-years and older

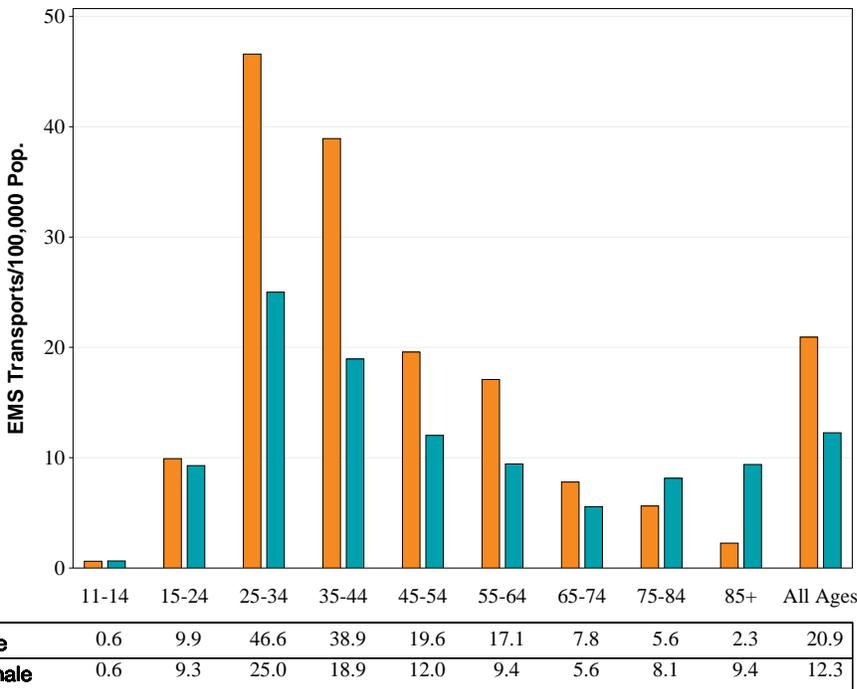
Males aged 25-34 years experienced non-fatal all-cause drug overdose more frequently and at higher rate than females of the same age category during 2018 Q4 (see **Figure 8**).

Figure 9. Florida 2018 Q4 Non-fatal All Drug Overdose Rate Trends by Age and Sex



From 2016 Q4 through to 2018 Q4, all non-fatal drug overdose rate trends were not significantly observed among any sex and age group combination (see **Figure 9**).

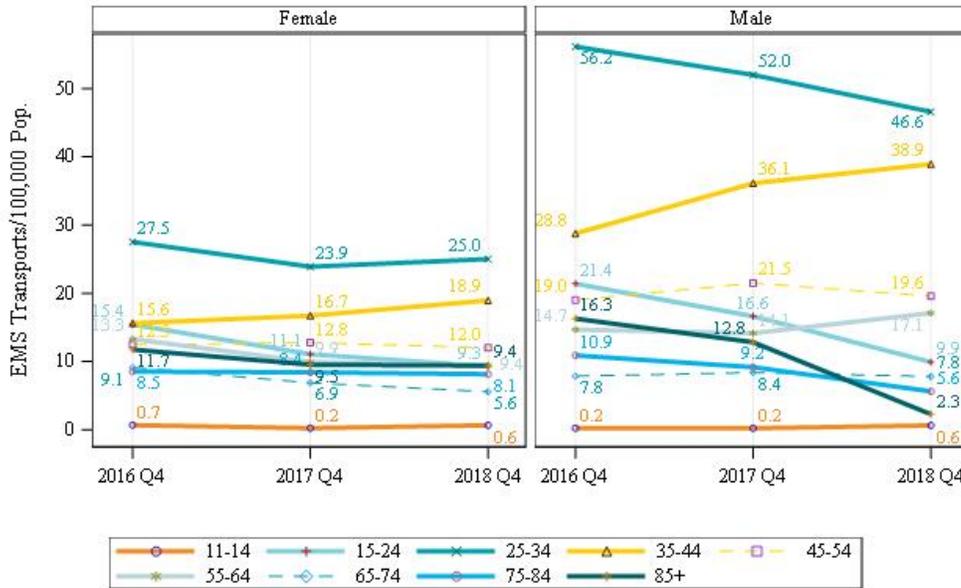
Figure 10. Non-fatal Opioid-Involved Overdose Rate by Sex and Age, Florida 2018 Q4



Note: Opioid may include prescription or illicit opioids.
Note: All Ages: 11-years and older

Males aged 25-34 years experienced non-fatal opioid-involved overdose more frequently and at a higher rate than females of the same age category during 2018 Q4. Overall, during Q4, males, particularly younger men aged 25 to 44 years, were transported for a non-fatal opioid-involved overdose at a higher rate than females (see **Figure 10**).

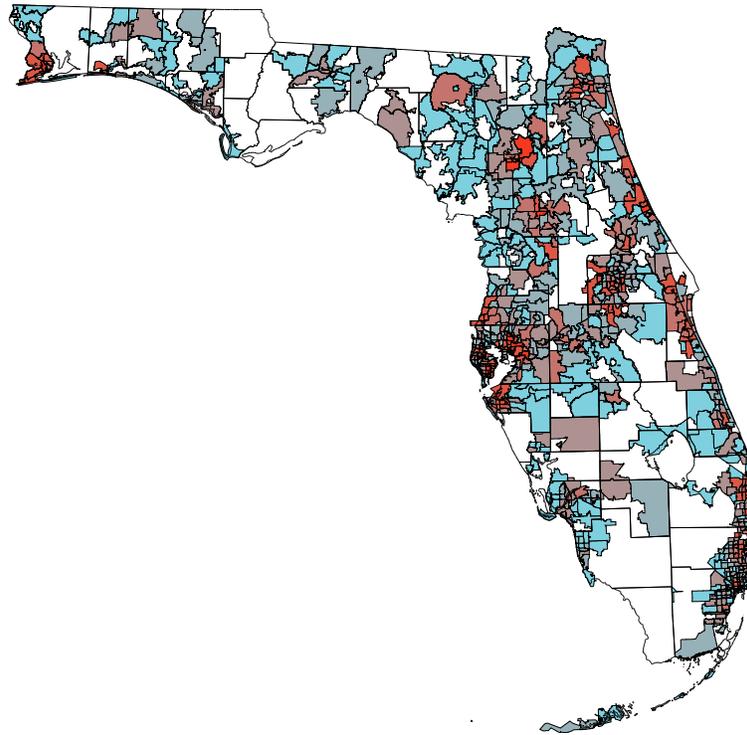
Figure 11. Florida 2018 Q4 Non-fatal Opioid-Involved Overdose Rate Trends by Age and Sex



Note: Opioid may include prescription or illicit opioids.

From 2016 Q4 through to 2018 Q4, statistically significant opioid-involved rate trends were observed for males 15-24 years (see **Figure 11**).

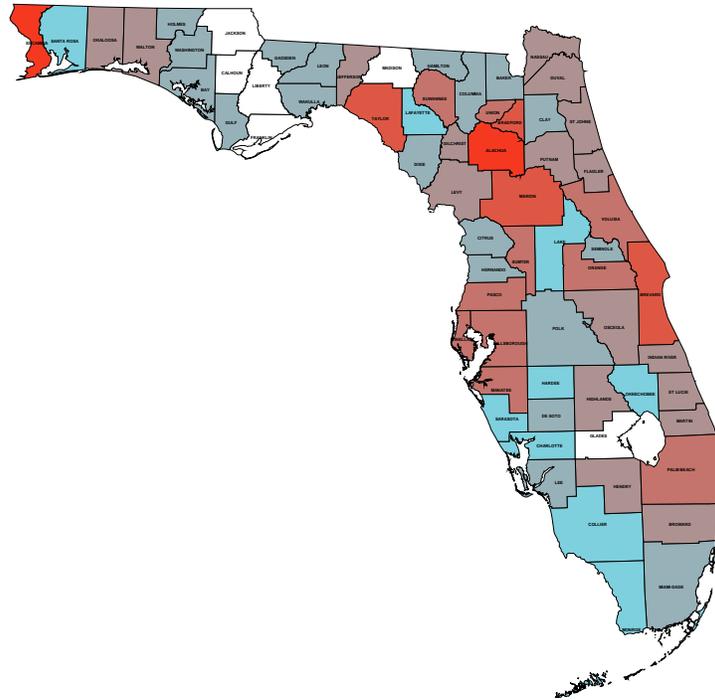
Figure 12. 2018 Q4 Florida All Non-fatal Drug Overdose Counts by ZIP Code



All Non-fatal Drug Overdose Count

■	1-3	■	4-6	■	7-13
■	14-20	■	21-50	■	51+

Figure 13. 2018 Q4 Florida Non-fatal All Drug Overdose County Rates



Drug overdose/100,000 Pop.

	*N/A	■	0.1-15	■	15.1-30	■	30.1-50
■	50.1-80	■	80.1-100	■	100.1+		

*Rates not calculated or observations unavailable

Figure 14. 2018 Q4 Florida All Non-fatal Opioid-Involved Overdose Counts by Zip Code

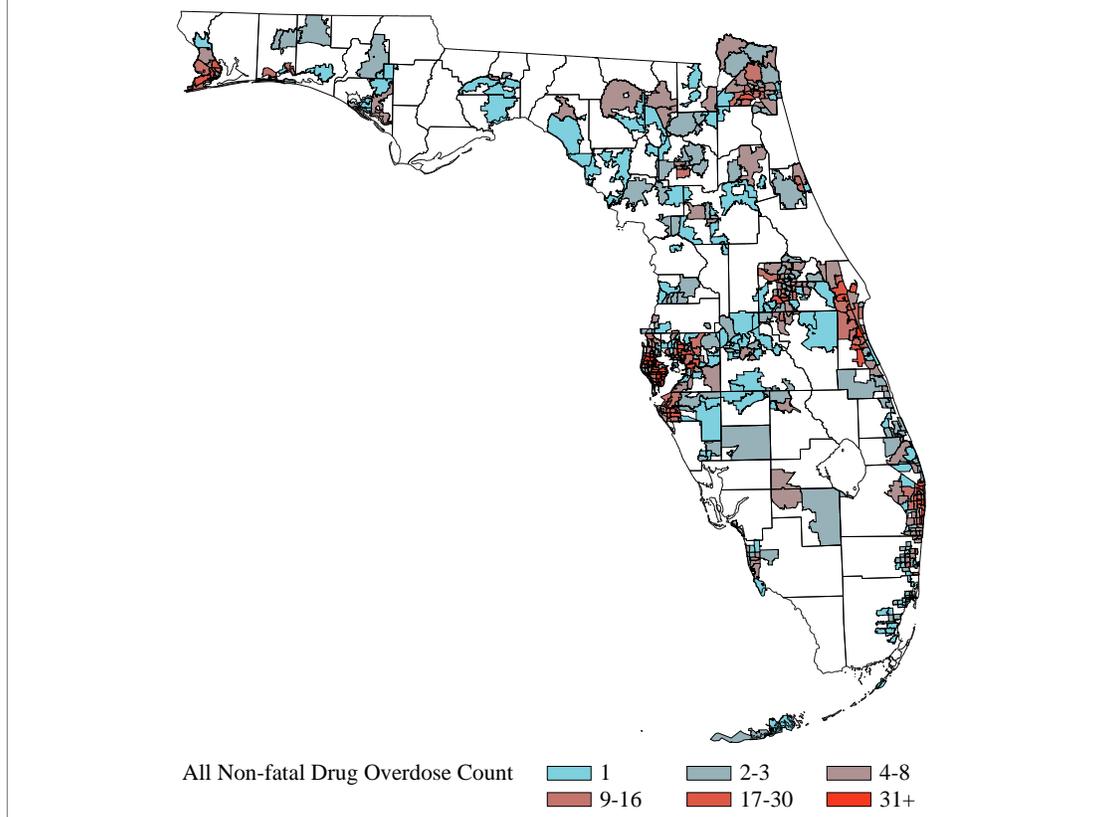
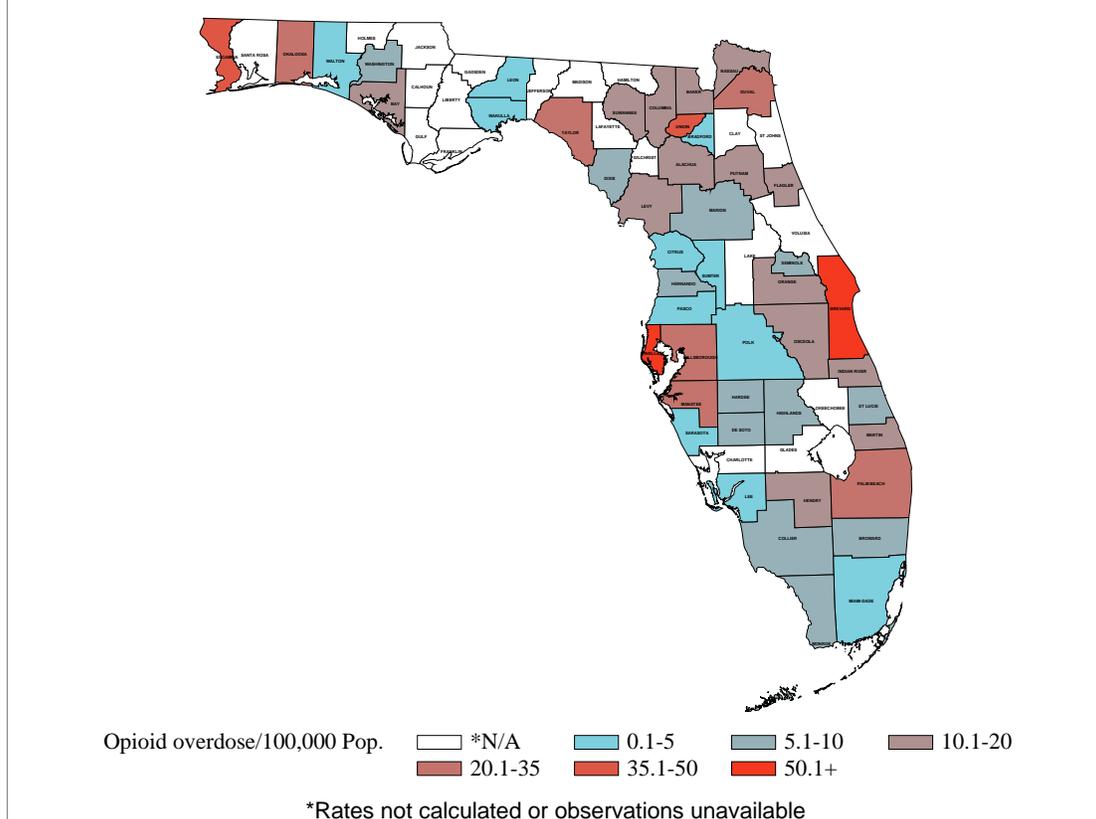


Figure 15. 2018 Q4 Florida Non-fatal Opioid-Involved Overdose County Rates



Florida Counties with the Highest Count and Rate of Non-fatal Overdoses— Florida 2018 Q4

ALL DRUG-INVOLVED NON-FATAL OVERDOSE

RANK	COUNTY (COUNT)	RANK	COUNTY (RATE PER 100,000)
1	Hillsborough (969)	1	Alachua (173.3)
2	Pinellas (719)	2	Escambia (104.4)
3	Palm Beach (700)	3	Taylor (93.6)
4	Orange (602)	4	Brevard (90.8)
5	Miami-Dade (555)	5	Bradford (89.2)
6	Broward (524)	6	Marion (88.2)
7	Brevard (489)	7	Pinellas (79.8)
8	Alachua (421)	8	Hillsborough (78.3)
9	Duval (404)	9	Manatee (68.4)
10	Volusia (332)	10	Volusia (67.3)

OPIOID-INVOLVED NON-FATAL OVERDOSE

RANK	COUNTY (COUNT)	RANK	COUNTY (RATE PER 100,000)
1	Pinellas (712)	1	Pinellas (79.0)
2	Palm Beach (464)	2	Brevard (65.1)
3	Brevard (351)	3	Escambia (47.5)
4	Hillsborough (285)	4	Union (35.8)
5	Orange (201)	5	Palm Beach (34.8)
6	Duval (200)	6	Manatee (34.2)
7	Escambia (136)	7	Taylor (29.6)
8	Manatee (119)	8	Duval (24.1)
9	Broward (103)	9	Hillsborough (23.0)
10	Miami-Dade (49)	10	Okaloosa (21.6)

Non-fatal Drug Overdose (Morbidity), Florida 2018 Q4

RATE PER 100,000 FLORIDIANS ≥11-YEARS.

OPIOID-INVOLVED MAY INCLUDE PRESCRIPTION, AND ILLICIT OPIOIDS, CATEGORIES ARE NOT MUTUALLY EXCLUSIVE

	ALL DRUG		OPIOID-INVOLVED	
	No.	Rate	No.	Rate
TOTAL Q4	8477	45.4	3078	16.5
AGE				
11-14	94	9.9	6	0.6
15-24	1198	47.2	244	9.6
25-34	2396	86.6	995	36.0
35-44	1761	69.3	733	28.8
45-54	1247	43.9	448	15.8
55-64	1031	36.7	367	13.0
65-74	427	18.2	155	6.6
75-84	209	16.1	91	7.0
85+	109	19.0	38	6.6
ETHNICITY (RACE)				
HISPANIC	483	N/A	119	N/A
WHITE	5	N/A	3	N/A
BLACK	2	N/A	0	N/A
ASIAN	1	N/A	0	N/A
MULTIPLE RACE	1	N/A	1	N/A
UNKNOWN RACE	474	N/A	115	N/A
UNKNOWN-HISPANIC	7994	N/A	2959	N/A
WHITE	5861	N/A	2410	N/A
BLACK	1176	N/A	280	N/A
ASIAN	73	N/A	24	N/A
MULTIPLE RACE	281	N/A	106	N/A
UNKNOWN RACE	603	N/A	139	N/A
SEX (AGE)				
MALE	5000	55.1	1897	20.9
11-14	31	6.4	3	0.6
15-24	647	49.7	129	9.9
25-34	1532	109.5	652	46.6
35-44	1115	88.6	490	38.9
45-54	746	53.5	273	19.6
55-64	592	44.6	227	17.1
65-74	218	20.0	85	7.8
75-84	90	15.3	33	5.6
85+	29	13.1	5	2.3
FEMALE	3467	36.1	1178	12.3
11-14	63	13.6	3	0.6

15-24	549	44.3	115	9.3
25-34	863	63.1	342	25.0
35-44	646	50.4	243	18.9
45-54	500	34.5	174	12.0
55-64	439	29.6	140	9.4
65-74	209	16.6	70	5.6
75-84	119	16.7	58	8.1
85+	79	22.5	33	9.4
COUNTY				
ALACHUA	421	173.3	33	13.6
BAKER	N/A	20.0	N/A	20.0
BAY	36	21.6	20	12.0
BRADFORD	22	89.2	N/A	4.1
BREVARD	489	90.8	351	65.1
BROWARD	524	30.1	103	5.9
CALHOUN	N/A	N/A	N/A	N/A
CHARLOTTE	N/A	2.9	N/A	N/A
CITRUS	25	18.3	N/A	0.7
CLAY	34	18.0	N/A	N/A
COLLIER	44	12.9	34	10.0
COLUMBIA	15	23.9	N/A	14.3
DE SOTO	N/A	21.3	N/A	9.1
DIXIE	N/A	19.9	N/A	6.6
DUVAL	404	48.7	200	24.1
ESCAMBIA	299	104.4	136	47.5
FLAGLER	47	46.2	16	15.7
FRANKLIN	N/A	N/A	N/A	N/A
GADSDEN	N/A	21.6	N/A	N/A
GILCHRIST	N/A	31.7	N/A	N/A
GLADES	N/A	N/A	N/A	N/A
GULF	N/A	19.9	N/A	N/A
HAMILTON	N/A	15.1	N/A	N/A
HARDEE	N/A	12.5	N/A	8.3
HENDRY	13	37.9	N/A	17.5
HERNANDO	42	24.6	14	8.2
HIGHLANDS	30	31.9	7	7.4
HILLSBOROUGH	969	78.3	285	23.0
HOLMES	N/A	22.3	N/A	N/A
INDIAN RIVER	65	45.6	18	12.6
JACKSON	N/A	N/A	N/A	N/A
JEFFERSON	N/A	30.9	N/A	N/A
LAFAYETTE	N/A	12.5	N/A	N/A
LAKE	N/A	1.0	N/A	N/A
LEE	164	24.4	N/A	0.4
LEON	46	17.3	10	3.8
LEVY	17	46.3	N/A	13.6

LIBERTY	N/A	N/A	N/A	N/A
MADISON	N/A	N/A	N/A	N/A
MANATEE	238	68.4	119	34.2
MARION	285	88.2	23	7.1
MARTIN	60	40.1	18	12.0
MIAMI-DADE	555	22.4	49	2.0
MONROE	N/A	12.1	N/A	6.7
NASSAU	23	30.9	14	18.8
OKALOOSA	90	49.9	39	21.6
OKEECHOBEE	N/A	2.7	N/A	N/A
ORANGE	602	50.8	201	16.9
OSCEOLA	134	44.5	37	12.3
PALM BEACH	700	52.5	464	34.8
PASCO	311	66.0	13	2.8
PINELLAS	719	79.8	712	79.0
POLK	167	27.7	26	4.3
PUTNAM	24	36.5	10	15.2
ST JOHNS	68	31.6	N/A	N/A
ST LUCIE	123	43.6	17	6.0
SANTA ROSA	N/A	1.9	N/A	N/A
SARASOTA	15	3.8	N/A	1.3
SEMINOLE	72	17.2	35	8.4
SUMTER	69	56.2	N/A	0.8
SUWANNEE	21	52.4	N/A	15.0
TAYLOR	19	93.6	N/A	29.6
UNION	N/A	64.5	N/A	35.8
VOLUSIA	332	67.3	N/A	N/A
WAKULLA	N/A	20.5	N/A	3.4
WALTON	27	44.9	N/A	5.0
WASHINGTON	N/A	17.6	N/A	8.8

N/A: Rates not calculated or not enough observations available