Drugs Identified in Deceased Persons by Florida Medical Examiners



2017 Interim Report

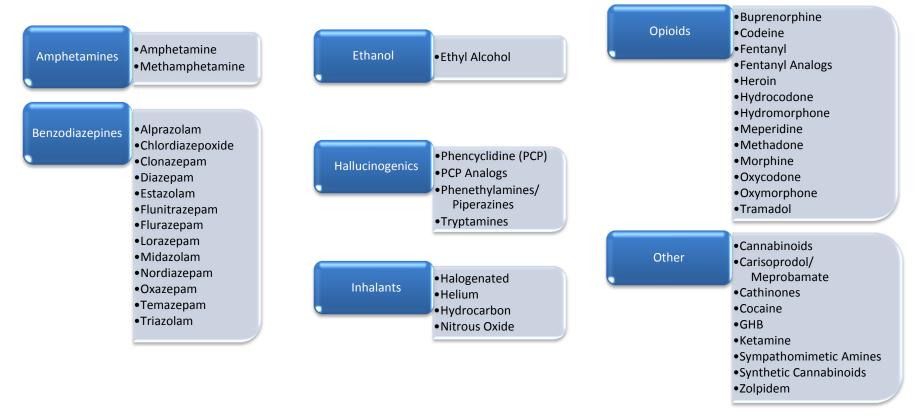
Data Collection

The State of Florida's Bureau of Vital Statistics reported 104,519 deaths in Florida during the first six months of 2017. Of the cases seen by Florida's medical examiners, toxicology results determined that the drugs listed below were present at the time of death in 6,110 cases. The medical examiners assessed whether the drug(s) identified was the cause of death or merely present at the time of death. The data were then submitted to the Medical Examiners Commission (MEC) for presentation in this report. It is important to note that each death is a single case, while each time a drug is detected represents an occurrence. The vast majority of the 6,110 deaths had more than one drug occurrence.

When reporting the data, Florida's medical examiners were asked to distinguish between the drugs determined to be the cause of death and those drugs that were present in the body at the time of death. A drug is indicated as the cause of death only when, after examining all evidence, the autopsy, and toxicology results, the medical examiner determines the drug played a causal role in the death. It is not uncommon for a decedent to have multiple drugs listed as a cause of death. However, a drug may not have played a causal role in the death even when the medical examiner determines the drug is present or identifiable in the decedent. Therefore, a decedent often is found to have multiple drugs listed as present; these are drug occurrences and are not equivalent to deaths.

The MEC would like to acknowledge with much appreciation the crucial role of the members of the Quality Assurance Committee.

Data were collected on the following drugs:



Highlights

Some general statewide trends for the first half of 2017 (January – June) are listed below. **All comparisons are made to January - June 2016 data unless otherwise noted.**

- ✓ Total drug-related deaths increased by 11 percent (604 more).
- ✓ 3,037 opioid-related deaths were reported, which is a 20 percent increase (505 more). The opioids were identified as either the cause of death or merely present in the decedent.
- ✓ 2,096 opioid-caused deaths were reported, which is a 27 percent increase (445 more).
- ✓ 3,353 individuals (8 percent more) died with one or more prescription drugs in their system. The drugs were identified as either the cause of death or merely present in the decedent. These drugs may have also been mixed with illicit drugs and/or alcohol.
- ✓ 1,712 individuals (4 percent more) died with at least one prescription drug in their system that was identified as the cause of death. These drugs may have been mixed with other prescription drugs, illicit drugs, and/or alcohol.
- ✓ The seven most frequently occurring drugs found in decedents were ethyl alcohol (2,594), benzodiazepines (2,506, including 912 alprazolam occurrences), cocaine (1,584), cannabinoids (1,124), morphine (1,032), fentanyl analogs (875), and fentanyl (825). Since heroin is rapidly metabolized to morphine, this may lead to a substantial over-reporting of morphine-related deaths as well as significant under-reporting of heroin-related deaths.
- ✓ The drugs that caused the most deaths were cocaine (1,029), fentanyl analogs (840), morphine (679), fentanyl (667), benzodiazepines (658, including 376 alprazolam deaths), heroin (509), ethyl alcohol (490), oxycodone (306), and methamphetamine (213). Fentanyl analogs (96 percent), heroin (93 percent), fentanyl (81 percent), morphine (66 percent), cocaine (65 percent), and methamphetamine (51 percent) were listed as causing death in more than 50 percent of the deaths in which these drugs were found.
- ✓ Occurrences of heroin increased by 25 percent (110 more) and deaths caused by heroin increased by 24 percent (100 more).
- ✓ Occurrences of fentanyl increased by 1 percent (11 more) and deaths caused by fentanyl decreased by 6 percent (44 less).
- ✓ Occurrences of fentanyl analogs increased by 383 percent (694 more) and deaths caused by fentanyl analogs increased by 479 percent (695 more).
- ✓ Occurrences of methadone decreased by 13.5 percent (33 less) and deaths caused by methadone also decreased by 21 percent (34 less).
- ✓ Occurrences of hydrocodone increased by 7 percent (23 more) and deaths caused by hydrocodone decreased by 11 percent (13 less).
- ✓ Occurrences of oxycodone increased by 1 percent (8 more) and deaths caused by oxycodone decreased by 6 percent (21 less).

(Highlights continued)

- ✓ Occurrences of cocaine increased by 36 percent (418 more) and deaths caused by cocaine increased by 59 percent (383 more). Cocaine was frequently found to co-occur with one or more of the illicit opioids (heroin, fentanyl, and the fentanyl analogs). This may represent separate drug exposures closely related in time or a single exposure to a mixture of illicit opioids and cocaine.
- ✓ Alprazolam (Xanax), diazepam (Valium), and nordiazepam dominate the category of benzodiazepines. Occurrences of alprazolam increased by 6.5 percent, diazepam increased by 1 percent, and nordiazepam decreased by 1 percent. Alprazolam, diazepam, and nordiazepam are rarely the sole cause of death, but are common as contributing to the cause of multi-drug deaths. Note that since the drugs diazepam and chlordiazepoxide (Librium) are normally broken down in the body into the drug nordiazepam, many occurrences of nordiazepam may represent ingestion of these other benzodiazepines.
- ✓ Occurrences of methamphetamine (72 percent, 173 more) and amphetamine (47 percent, 128 more) increased. Deaths caused by methamphetamine (84 percent, 97 more) and amphetamine (54 percent, 40 more) also increased. In the body, methamphetamine is metabolized to amphetamine, thus many occurrences of amphetamine likely represent illicit methamphetamine ingestion rather than pharmaceutical amphetamine use.
- ✓ Occurrences of cathinones increased by 38 percent (18 more) and deaths caused by cathinones increased by 55 percent (11 more).
- ✓ Occurrences of synthetic cannabinoids increased by 200 percent (20 more) and deaths caused by synthetic cannabinoids also increased (18 more). The majority of the synthetic cannabinoids reported were 5F-ADB (19 occurrences).
- ✓ Reporting of U-47700 was not specifically requested by the Commission in 2017. Due to the rapid rise of deaths associated with U-47700, many districts voluntarily reported data; however, the data is not complete. A total of 80 occurrences of U-47700 were reported for January June 2017. Reporting of U-47700 by all districts will begin with the 2018 Drugs Identified in Deceased Persons Reports.

Medical Examiners Commission Members

Stephen J. Nelson, M.A., M.D., F.C.A.P. Chairman

District 10 Medical Examiner 1021 Jim Keene Boulevard Winter Haven, Florida 33880 (863) 298-4600

Email: StephenNelson@polk-county.net

Barbara C. Wolf, M.D.

District 5 Medical Examiner

Honorable James S. Purdy, J.D.

Public Defender, Seventh Judicial Circuit

Robin Giddens Sheppard, L.F.D.

Vice President/Funeral Director, Hardage-Giddens Funeral Home

Kenneth T. Jones

State Registrar, Department of Health

MEC Staff — Florida Department of Law Enforcement

Post Office Box 1489
Tallahassee, Florida 32302
(850) 410-8600
MEC Website

Chief of Policy and Special Programs Vickie Koenig (850) 410-8600 *VickieKoenig@fdle.state.fl.us*

Government Analyst II Doug Culbertson (850) 410-8609 <u>DougCulbertson@fdle.state.fl.us</u>

Government Analyst II Beth McNeil (850) 410-8608 <u>BethMcNeil@fdle.state.fl.us</u>

Deputy General Counsel James Martin, J.D. (850) 410-7676 JamesMartin@fdle.state.fl.us

Honorable J. Harrell Reid Sheriff, Hamilton County

Honorable Jeffrey A. Siegmeister, J.D. State Attorney, Third Judicial Circuit

Wesley Heidt, J.D.

Office of the Attorney General

Honorable Carol Whitmore, R.N. Manatee County Commissioner

Quality Assurance Committee Members

Russell S. Vega, M.D.
District Medical Examiner
District 12 Medical Examiner Office

Robert R. Pfalzgraf, M.D.
Associate Medical Examiner
District 4 Medical Examiner Office

Julia M. Pearson, Ph.D.
Chief Forensic Toxicologist
District 13 Medical Examiner Office

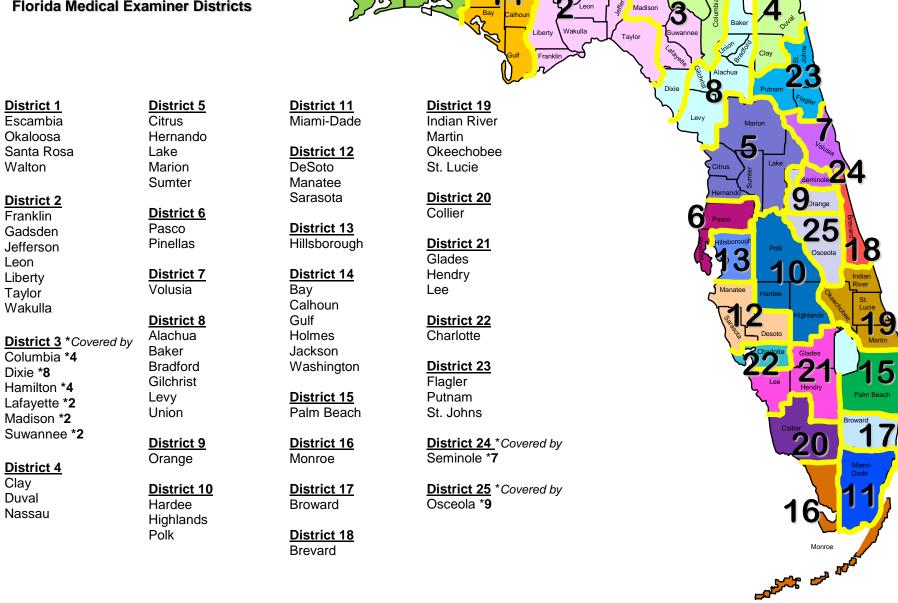
Chris W. Chronister, Ph.D.
Forensic Toxicology Laboratory Manager
University of Florida

Table of Contents

Map of Florida Medical Examiner Districts	1
Summary of Drug Occurrences in Decedents	2
Frequency of Reported Drug Occurrences	4
Comparison of Drug Occurrences in Decedents	5
(January - June 2016 & January - June 2017)	
Comparison of Drug Caused Deaths	7
(January 2016 – June 2017)	
Frequency of Occurrence of Benzodiazepines	8
Alprazolam Deaths	9
Alprazolam Deaths by Age	10
Diazepam Deaths	11
Diazepam Deaths by Age	12
Frequency of Occurrence of Opioids	13
Oxycodone Deaths	14
Oxycodone Deaths by Age	15
Hydrocodone Deaths	16
Hydrocodone Deaths by Age	17
Methadone Deaths	18
Methadone Deaths by Age	19
Morphine Deaths	20
Morphine Deaths by Age	21
Fentanyl Deaths	22
Fentanyl Deaths by Age	23
Frequency of Occurrence of Fentanyl Analogs	24
Fentanyl Analog Deaths	25
Fentanyl Analog Deaths by Age	26
Heroin Deaths	27
Heroin Deaths by Age	28
Cocaine Deaths	29
Cocaine Deaths by Age	30
Drug Detected at Death: Cause vs. Present	31
Manner of Death for Cases Reported	34
Glossary	37

Coverage Map

Florida Medical Examiner Districts



Summary of Drug Occurrences in Decedents

	Drug Present in Body	Cause	Present	TOTAL OCCURRENCES
Amphetamines	Amphetamine	114	286	400
Amphet	Methamphetamine	213	201	414
	Alprazolam	376	536	912
	Chlordiazepoxide	10	42	52
	Clonazepam	42	206	248
	Diazepam	88	224	312
nes	Estazolam	0	0	0
epir	Flunitrazepam	1	0	1
diaz	Flurazepam	0	2	2
Benzodiazepines	Lorazepam	19	113	132
Be	Midazolam	2	98	100
	Nordiazepam	58	277	335
	Oxazepam	19	152	171
	Temazepam	43	198	241
	Triazolam	0	0	0
	Ethanol	490	2,104	2,594
CS	Phencyclidine (PCP)	0	0	0
nogeni	PCP Analogs	1	0	1
Hallucinogenics	Phenethylamines/Piperazines	8	13	21
I	Tryptamines	0	0	0

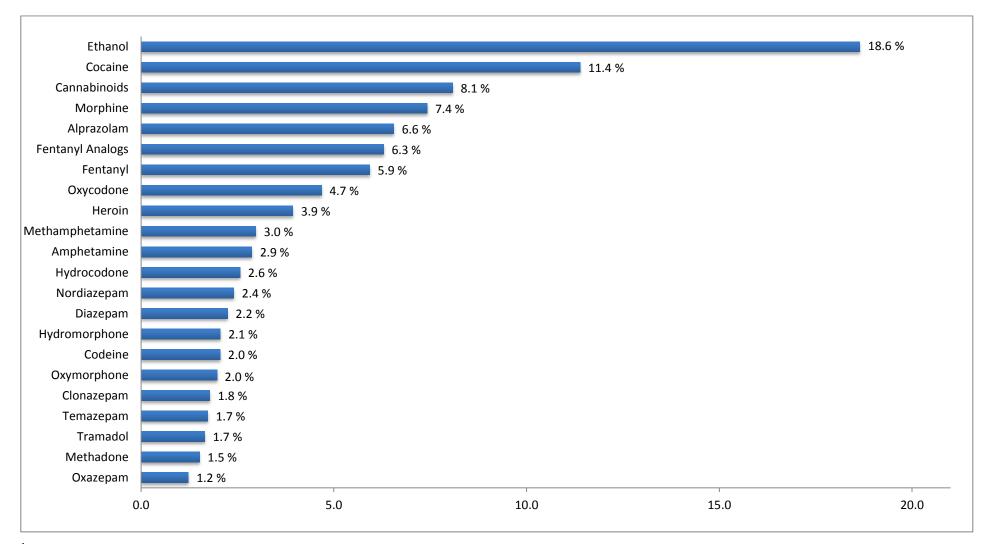
Summary of Drug Occurrences in Decedents (continued)

	Drug Present in Body	Cause	Present	TOTAL OCCURRENCES
S	Halogenated	28	2	30
Inhalants	Helium	6	1	7
ıha	Hydrocarbon	1	0	1
=	Nitrous Oxide	0	0	0
	Buprenorphine	17	49	66
	Codeine	35	250	285
	Fentanyl	667	158	825
	Fentanyl Analogs	840	35	875
	Heroin	509	39	548
gs	Hydrocodone	104	253	357
Opioids	Hydromorphone	104	182	286
ō	Meperidine	1	13	14
	Methadone	125	86	211
	Morphine	679	353	1,032
	Oxycodone	306	345	651
	Oxymorphone	58	216	274
	Tramadol	49	181	230
	Cannabinoids	2	1,122	1,124
	Carisoprodol/Meprobamate	16	47	63
	Cathinones	31	34	65
<u>_</u>	Cocaine	1,029	555	1,584
Other	GHB	2	0	2
O	Ketamine	6	50	56
	Sympathomimetic Amines	3	8	11
	Synthetic Cannabinoids	25	5	30
	Zolpidem	23	102	125

Note: The total occurrences for buprenorphine and cannabinoids are under reported due to the variability in analytical protocols in place at medical examiner offices. Medical examiners were asked to identify any metabolites of parent drugs. Since heroin is rapidly metabolized to morphine, this may lead to a substantial over-reporting of morphine-related deaths as well as significant under-reporting of heroin-related deaths. Many deaths were found to have several drugs contributing to the death; therefore, the count of specific drugs listed is greater than the number of deaths.

Frequency of Reported Drug Occurrences¹

January – June 2017



¹The following drugs individually constituted less than one percent of drug frequencies and are not included: chlordiazepoxide, estazolam, flunitrazepam, flurazepam, lorazepam, midazolam, triazolam, all hallucinogenics, all inhalants, buprenorphine, meperidine, carisoprodol/meprobamate, cathinones, GHB, ketamine, sympathomimetic amines, synthetic cannabinoids, and zolpidem.

Note: Percentages may not sum to 100 percent because of rounding.

Comparison of Drug Occurrences in Decedents

	Drug Present in Body	JANUARY – JUNE 2016	JANUARY – JUNE 2017	PERCENTAGE CHANGE
Amphetamines	Amphetamine	272	400	47.1
Amphe	Methamphetamine	241	414	71.8
	Alprazolam	856	912	6.5
	Chlordiazepoxide	48	52	8.3
	Clonazepam	246	248	0.8
	Diazepam	309	312	1.0
nes	Estazolam	0	0	*
epir	Flunitrazepam	0	1	*
Benzodiazepines	Flurazepam	2	2	*
)OZU	Lorazepam	113	132	16.8
Be	Midazolam	80	100	25.0 ¹
	Nordiazepam	338	335	-0.9
	Oxazepam	173	171	-1.2
	Temazepam	227	241	6.2
	Triazolam	5	0	*
	Ethanol	2,526	2,594	2.7
ics	Phencyclidine (PCP)	0	0	*
Hallucinogenics	PCP Analogs	2	1	*
llucin	Phenethylamines/Piperazines	19	21	*
Hai	Tryptamines	0	0	*

^{*}Due to the small number of occurrences, percent changes were not calculated.

Note: Many deaths were found to have several drugs contributing to the death; therefore, the count of specific drugs listed is greater than the number of deaths.

¹Midazolam is used clinically as a sedative and anesthetic. It is not currently a known drug of abuse.

Comparison of Drug Occurrences in Decedents (continued)

	DRUG PRESENT IN BODY	January – June 2016	January – June 2017	PERCENTAGE CHANGE
Ś	Halogenated	29	30	3.4
Inhalants	Helium	4	7	*
hal	Hydrocarbon	1	1	*
드	Nitrous Oxide	1	0	*
	Buprenorphine	55	66	20.0
	Codeine	222	285	28.4
	Fentanyl	814	825	1.4
	Fentanyl Analogs	181	875	383.4
	Heroin	438	548	25.1
ds	Hydrocodone	334	357	6.9
Opioids	Hydromorphone	276	286	3.6
ŏ	Meperidine	4	14	*
	Methadone	244	211	-13.5
	Morphine	914	1,032	12.9
	Oxycodone	643	651	1.2
	Oxymorphone	241	274	13.7
	Tramadol	220	230	4.5
	Cannabinoids	1,096	1,124	2.6
	Carisoprodol/Meprobamate	68	63	-7.4
	Cathinones	47	65	38.3
<u>.</u>	Cocaine	1,166	1,584	35.8
Other	GHB	1	2	*
0	Ketamine	40	56	40.0 ¹
	Sympathomimetic Amines	14	11	*
	Synthetic Cannabinoids	10	30	200.0
	Zolpidem	130	125	-3.8

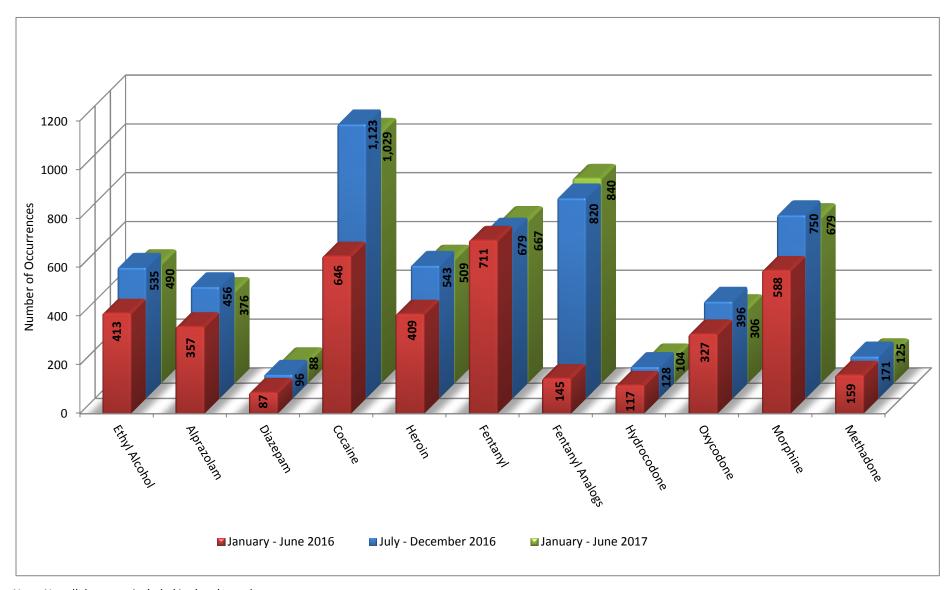
^{*}Due to the small number of occurrences, percent changes were not calculated.

¹The increase in ketamine occurrences is largely due to the clinical use of ketamine as a sedative and anesthetic in the hospital.

Note: Many deaths were found to have several drugs contributing to the death; therefore, the count of specific drugs listed is greater than the number of deaths.

Comparison of Drug Caused Deaths

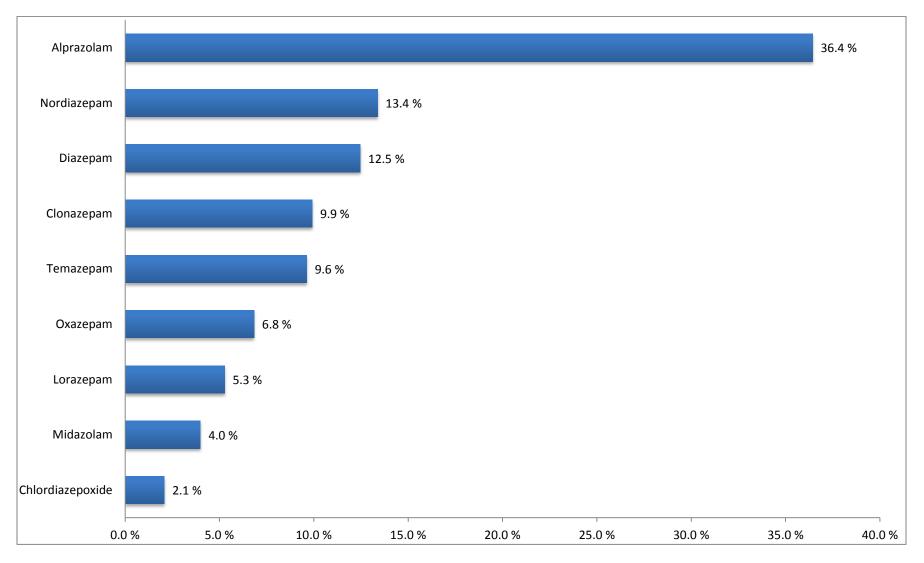
January 2016 to June 2017



Note: Not all drugs are included in the above chart.

Frequency of Occurrence of Benzodiazepines

January – June 2017



Note: Benzodiazepines not included individually constituted less than one percent of occurrences. Percentages may not sum to 100 percent because of rounding. Several benzodiazepines (for example, diazepam) are metabolized to other benzodiazepines in the body (for example, nordiazepam, oxazepam, and temazepam). Thus, occurrences of nordiazepam, oxazepam, and temazepam may be due to the ingestion of diazepam, chlordiazepoxide, and/or temazepam.

Alprazolam Deaths

Medical Examiner District			
and a	Area of Florida		
District	Area of Florida		
1	Pensacola		
2	Tallahassee		
3	Live Oak		
4	Jacksonville		
5	Leesburg		
6	St. Petersburg		
7	Daytona Beach		
8	Gainesville		
9	Orlando		
10	Lakeland		
11	Miami		
12	Sarasota		
13	Tampa		
14	Panama City		
15	West Palm Beach		
16	Florida Keys		
17	Ft. Lauderdale		
18	Melbourne		
19	Ft. Pierce		
20	Naples		
21	Ft. Myers		
22	Port Charlotte		
23	St. Augustine		
24	Sanford		
25	Kissimmee		
Sta	tewide Totals		

Total Deaths with Alprazolam				
Total	Cause	Present		
29	20	9		
2	2	0		
1	1	0		
86	31	55		
39	7	32		
56	28	28		
27	8	19		
15	9	6		
50	22	28		
38	16	22		
110	39	71		
56	29	27		
47	22	25		
18	2	16		
93	34	59		
7	4	3		
86	55	31		
37	15	22		
19	0	19		
18	5	13		
31	15	16		
8	1	7		
9	3	6		
16	2	14		
14	6	8		
912	376	536		

Deaths with Alprazolam Only				
Total	Cause	Present		
2	1	1		
0	0	0		
0	0	0		
1	0	1		
0	0	0		
2	1	1		
1	0	1		
3	0	3		
5	2	3		
5	1	4		
9	0	9		
3	0	3		
0	0	0		
0	0	0		
3	1	2		
0	0	0		
2	0	2		
3	0	3		
2	0	2		
0	0	0		
0	0	0		
0	0	0		
1	0	1		
0	0	0		
1	0	1		
43	6	37		

	with Alpraz			
	Combination with Other Drugs			
Total	Cause	Present		
27	19	8		
2	2	0		
1	1	0		
85	31	54		
39	7	32		
54	27	27		
26	8	18		
12	9	3		
45	20	25		
33	15	18		
101	39	62		
53	29	24		
47	22	25		
18	2	16		
90	33	57		
7	4	3		
84	55	29		
34	15	19		
17	0	17		
18	5	13		
31	15	16		
8	1	7		
8	3	5		
16	2	14		
13	6	7		
869	370	499		

Alprazolam Deaths by Age January – June 2017

Medical Examiner District and Area of Florida			
District	Area of Florida	Total	
1	Pensacola	29	
2	Tallahassee	2	
3	Live Oak	1	
4	Jacksonville	86	
5	Leesburg	39	
6	St. Petersburg	56	
7	Daytona Beach	27	
8	Gainesville	15	
9	Orlando	50	
10	Lakeland	38	
11	Miami	110	
12	Sarasota	56	
13	Tampa	47	
14	Panama City	18	
15	West Palm Beach	93	
16	Florida Keys	7	
17	Ft. Lauderdale	86	
18	Melbourne	37	
19	Ft. Pierce	19	
20	Naples	18	
21	Ft. Myers	31	
22	Port Charlotte	8	
23	St. Augustine	9	
24	Sanford	16	
25	Kissimmee	14	
Stat	ewide Totals	912	

	Alprazolam Caused Death					
		Age of D	ecedent			
Total	<18	18-25	26-34	35-50	>50	
20	0	3	4	8	5	
2	0	0	1	0	1	
1	0	0	0	1	0	
31	0	4	8	9	10	
7	0	1	0	4	2	
28	0	7	3	8	10	
8	0	0	1	3	4	
9	0	1	0	6	2	
22	0	4	7	8	3	
16	0	0	2	5	9	
39	0	7	7	14	11	
29	0	1	7	16	5	
22	1	2	1	7	11	
2	0	0	1	1	0	
34	0	2	14	9	9	
4	0	1	0	2	1	
55	0	6	21	16	12	
15	1	0	3	7	4	
0	0	0	0	0	0	
5	0	1	0	1	3	
15	0	2	5	4	4	
1	0	0	0	0	1	
3	0	0	1	2	0	
2	0	1	0	1	0	
6	0	2	2	2	0	
376	2	45	88	134	107	

Alprazolam Present at Death						
	Age of Decedent					
Total	<18	18-25	26-34	35-50	>50	
9	0	1	3	0	5	
0	0	0	0	0	0	
0	0	0	0	0	0	
55	0	7	16	15	17	
32	0	3	5	10	14	
28	0	3	6	6	13	
19	0	1	5	8	5	
6	0	0	1	3	2	
28	0	2	6	7	13	
22	0	4	1	7	10	
71	0	11	20	15	25	
27	0	1	1	13	12	
25	0	3	4	5	13	
16	0	0	7	6	3	
59	1	6	18	14	20	
3	0	0	1	0	2	
31	1	6	5	9	10	
22	1	2	5	8	6	
19	0	0	4	6	9	
13	0	3	3	3	4	
16	0	3	3	4	6	
7	0	0	1	1	5	
6	0	0	4	2	0	
14	0	1	2	7	4	
8	0	2	0	3	3	
536	3	59	121	152	201	

Diazepam Deaths January – June 2017

Medical Examiner District and Area of Florida			
District			
1	Pensacola		
2	Tallahassee		
3	Live Oak		
4	Jacksonville		
5	Leesburg		
6	St. Petersburg		
7	Daytona Beach		
8	Gainesville		
9	Orlando		
10	Lakeland		
11	Miami		
12	Sarasota		
13	Tampa		
14	Panama City		
15	West Palm Beach		
16	Florida Keys		
17	Ft. Lauderdale		
18	Melbourne		
19	Ft. Pierce		
20	Naples		
21	Ft. Myers		
22	Port Charlotte		
23	St. Augustine		
24	Sanford		
25 Kissimmee			
Statewide Totals			

Total Deaths with Diazepam			
Total	Cause	Present	
9	3	6	
3	1	2	
4	1	3	
23	7	16	
19	0	19	
31	17	14	
11	0	9	
3	0	3	
11	0	11	
6	2	4	
22	5	17	
22	7	15	
17	12	5	
1	1	0	
35	9	26	
2	1	1	
22	9	13	
20	1	19	
13	0	13	
8	0	8	
13	5	8	
0	0	0	
9	3	6	
5	1	4	
3	1	2	
312	88	224	

Deaths with Diazepam Only			
Total	Cause	Present	
0	0	0	
0	0	0	
1	0	1	
1	0	1	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
3	0	3	
1	0	1	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
2	0	2	
1	0	1	
1	0	1	
1	0	1	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
11	0	11	

Deaths with Diazepam in			
Combination with Other Drugs			
Total	Cause	Present	
9	3	6	
3	1	2	
3	1	2	
22	7	15	
19	0	19	
31	17	14	
11	2	9	
3	0	3	
11	0	11	
6	2	4	
19	2 5 7	14	
21		14	
17	12	5	
1	1	0	
35	9	26	
2	1	1	
20	9	11	
19	1	18	
12	0	12	
7	0	7	
13	5	8	
0	0	0	
9	3	6	
5	1	4	
3	1	2	
301	88	213	

Diazepam Deaths by Age

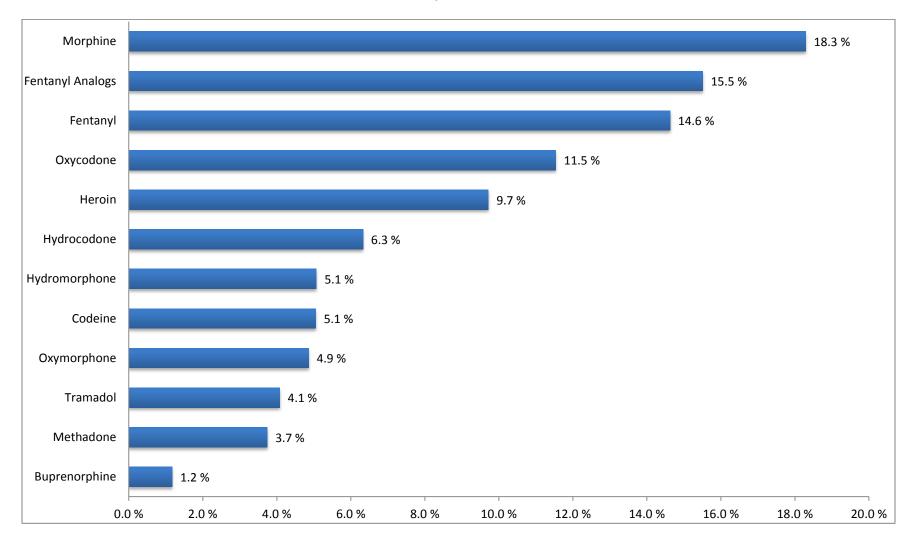
Medical Examiner District and Area of Florida			
District	Area of Florida	Total	
1	Pensacola	9	
2	Tallahassee	3	
3	Live Oak	4	
4	Jacksonville	23	
5	Leesburg	19	
6	St. Petersburg	31	
7	Daytona Beach	11	
8	Gainesville	3	
9	Orlando	11	
10	Lakeland	6	
11	Miami	22	
12	Sarasota	22	
13	Tampa	17	
14	Panama City	1	
15	West Palm Beach	35	
16	Florida Keys	2	
17	Ft. Lauderdale	22	
18	Melbourne	20	
19	Ft. Pierce	13	
20	Naples	8	
21	Ft. Myers	13	
22	Port Charlotte	0	
23	St. Augustine	9	
24	Sanford	5	
25	Kissimmee	3	
Statewide Totals 312			

	Diazepam Caused Death				
	1	Age of D		ı	ı
Total	< 18	18-25	26-34	35-50	>50
3	0	0	2	0	1
1	0	0	0	1	0
1	0	0	0	1	0
7	0	0	0	2	5
0	0	0	0	0	0
17	0	0	4	7	6
2	0	0	0	0	2
0	0	0	0	0	0
0	0	0	0	0	0
2	0	0	0	0	2
5	0	0	1	2	2
7	0	1	1	3	2
12	0	1	2	3	6
1	0	0	0	1	0
9	0	1	3	2	3
1	0	0	0	1	0
9	0	0	3	3	3
1	0	0	1	0	0
0	0	0	0	0	0
0	0	0	0	0	0
5	0	1	0	0	4
0	0	0	0	0	0
3	0	0	1	1	1
1	0	0	0	1	0
1	0	0	0	0	1
88	0	4	18	28	38

	Diaze	pam Pre	sent at D	eath	
Age of Decedent					
Total	<18	18-25	26-34	35-50	>50
6	0	0	0	1	5
2	0	0	0	0	2
3	0	1	0	0	2
16	0	1	1	6	8
19	0	0	3	5	11
14	0	3	1	2	8
9	0	0	3	2	4
3	0	0	0	1	2
11	0	0	1	3	7
4	0	1	0	1	2
17	0	0	2	2	13
15	0	1	4	3	7
5	1	0	0	2	2
0	0	0	0	0	0
26	0	2	7	7	10
1	0	0	1	0	0
13	0	1	4	5	3
19	0	1	3	7	8
13	0	0	1	6	6
8	0	1	0	2	5
8	0	0	1	1	6
0	0	0	0	0	0
6	0	0	1	2	3
4	0	0	1	3	0
2	0	0	1	1	0
224	1	12	35	62	114

Frequency of Occurrence of Opioids

January - June 2017



Note: Meperidine individually constituted less than 1 percent of opioid occurrences and is not included. Percentages may not sum to 100 percent because of rounding.

Oxycodone is metabolized to oxymorphone, and thus, occurrences of oxymorphone may represent oxycodone ingestion rather than oxymorphone ingestion. Heroin is metabolized to morphine, and thus, occurrences of morphine may represent heroin ingestion rather than morphine ingestion. Codeine is frequently present in heroin, and thus, codeine occurrences may represent heroin ingestion rather than codeine ingestion.

Oxycodone Deaths January – June 2017

Medical Examiner District and Area of Florida		
District Area of Florida		
1	Pensacola	
2	Tallahassee	
3		
4	Live Oak	
-	Jacksonville	
5	Leesburg	
6	St. Petersburg	
7	Daytona Beach	
8	Gainesville	
9	Orlando	
10	Lakeland	
11	Miami	
12	Sarasota	
13	Tampa	
14	Panama City	
15	West Palm Beach	
16	Florida Keys	
17	Ft. Lauderdale	
18	Melbourne	
19	Ft. Pierce	
20	Naples	
21	Ft. Myers	
22	Port Charlotte	
23	St. Augustine	
24	Sanford	
25 Kissimmee		
Statewide Totals		

Total Deaths with Oxycodone			
Total	Cause	Present	
11	3	8	
3	2	1	
8	4	4	
74	28	46	
42	19	23	
59	36	23	
16	9	7	
15	11	4	
23	5	18	
15	6	9	
54	27	27	
29	11	18	
47	20	27	
12	1	11	
50	21	29	
5	3	2	
54	34	20	
49	32	17	
24	8	16	
8	2	6	
20	10	10	
9	5	4	
7	3	4	
6	2	4	
11	4	7	
651	306	345	

Deaths with Oxycodone Only			
Total	Cause	Present	
3	1	2	
1	0	1	
4	1	3	
3	0	3	
4	1	3	
6	2	4	
1	0	1	
4	4	0	
3	0	3	
4	1	3	
0	0	0	
3	1	2	
5	0	5	
2	0	2	
5	1	4	
0	0	0	
5	2	3	
0	0	0	
4	0	4	
0	0	0	
1	0	1	
0	0	0	
0	0	0	
0	0	0	
2	0	2	
60	14	46	

Deaths with Oxycodone in				
Combination with Other Drugs				
Total	Cause	Present		
8	2	6		
2	2	0		
4	3	1		
71	28	43		
38	18	20		
53	34	19		
15	9	6		
11	7	4		
20	5	15		
11	5	6		
54	27	27		
26	10	16		
42	20	22		
10	1	9		
45	20	25		
5	3	2		
49	32	17		
49	32	17		
20	8	12		
8	2	6		
19	10	9		
9	5	4		
7	3	4		
6	2	4		
9	4	5		
591	292	299		

Oxycodone Deaths by Age

Medical Examiner District and Area of Florida			
District	Area of Florida	Total	
1	Pensacola	11	
2	Tallahassee	3	
3	Live Oak	8	
4	Jacksonville	74	
5	Leesburg	42	
6	St. Petersburg	59	
7	Daytona Beach	16	
8	Gainesville	15	
9	Orlando	23	
10	Lakeland	15	
11	Miami	54	
12	Sarasota	29	
13	Tampa	47	
14	Panama City	12	
15	West Palm Beach	50	
16	Florida Keys	5	
17	Ft. Lauderdale	54	
18	Melbourne	49	
19	Ft. Pierce	24	
20	Naples	8	
21	Ft. Myers	20	
22	Port Charlotte	9	
23	St. Augustine	7	
24	Sanford	6	
25	Kissimmee	11	
Statewide Totals 651			

	Oxycodone Caused Death					
	Age of Decedent					
Total	< 18	18-25	26-34	35-50	>50	
3	0	0	0	0	3	
2	0	0	0	0	2	
4	0	0	0	1	3	
28	0	0	3	11	14	
19	0	0	0	12	7	
36	0	5	4	13	14	
9	0	0	2	3	4	
11	0	0	2	4	5	
5	0	0	1	3	1	
6	0	1	0	3	2	
27	1	4	3	9	10	
11	0	0	1	3	7	
20	0	1	5	5	9	
1	0	0	1	0	0	
21	0	1	3	9	8	
3	0	0	0	2	1	
34	0	3	5	13	13	
32	1	0	3	15	13	
8	0	0	0	2	6	
2	0	0	0	0	2	
10	0	0	2	3	5	
5	0	0	0	1	4	
3	0	0	0	1	2	
2	0	0	0	2	0	
4	0	2	1	0	1	
306	2	17	36	115	136	

Oxycodone Present at Death					
Age of Decedent					
Total	<18	18-25	26-34	35-50	>50
8	0	0	0	1	7
1	0	0	0	0	1
4	0	0	0	1	3
46	0	3	11	12	20
23	0	2	3	5	13
23	0	1	6	3	13
7	0	0	0	5	2
4	0	0	0	1	3
18	0	0	3	4	11
9	0	0	0	3	6
27	0	3	4	7	13
18	0	2	0	6	10
27	0	2	3	7	15
11	0	0	0	3	8
29	0	3	6	11	9
2	0	0	0	1	1
20	0	1	3	6	10
17	1	1	1	8	6
16	0	0	0	4	12
6	0	0	0	3	3
10	0	0	1	6	3
4	0	1	0	1	2
4	0	0	1	2	1
4	0	0	0	3	1
7	0	1	0	0	6
345	1	20	42	103	179

Hydrocodone Deaths January – June 2017

Medical Examiner District and Area of Florida		
District Area of Florida		
1	Pensacola	
2	Tallahassee	
3	Live Oak	
4	Jacksonville	
5	Leesburg	
6	St. Petersburg	
7	Daytona Beach	
8	Gainesville	
9	Orlando	
10	Lakeland	
11	Miami	
12	Sarasota	
13	Tampa	
14	Panama City	
15	West Palm Beach	
16	Florida Keys	
17	Ft. Lauderdale	
18	Melbourne	
19	Ft. Pierce	
20	Naples	
21	Ft. Myers	
22	Port Charlotte	
23	St. Augustine	
24	Sanford	
25	Kissimmee	
Statewide Totals		

Total Deaths with Hydrocodone			
Total	Cause	Present	
23	4	19	
4	3	1	
2	1	1	
52	19	33	
20	6	14	
31	12	19	
9	3	6	
7	3	4	
24	1	23	
21	4	17	
14	6	8	
21	6	15	
16	4	12	
12	3	9	
13	5	8	
4	1	3	
12	6	6	
22	7	15	
13	1	12	
5	1	4	
6	3	3	
6	0	6	
8	1	7	
5	4	1	
7	0	7	
357	104	253	

Deaths with Hydrocodone Only			
Total	Cause	Present	
1	0	1	
1	1	0	
0	0	0	
5	2	3	
7	1	6	
7	0	7	
0	0	0	
1	0	1	
4	0	4	
3	0	3	
0	0	0	
2	0	2	
2	0	2	
1	0	1	
1	0	1	
0	0	0	
1	0	1	
5	1	4	
5	0	5	
0	0	0	
0	0	0	
1	0	1	
0	0	0	
0	0	0	
2	0	2	
49	5	44	

Deaths with Hydrocodone in				
Combination with Other Drugs				
Total	Cause	Present		
22	4	18		
3	2	1		
2	1	1		
47	17	30		
13	5	8		
24	12	12		
9	3	6		
6	3	3		
20	1	19		
18	4	14		
14	6	8		
19	6	13		
14	4	10		
11	3	8		
12	5	7		
4	1	3		
11	6	5		
17	6	11		
8	1	7		
5	1	4		
6	3	3		
5	0	5		
8	1	7		
5	4	1		
5	0	5		
308	99	209		

Hydrocodone Deaths by Age January – June 2017

Medical Examiner District and Area of Florida		
District	Area of Florida	Total
1	Pensacola	23
2	Tallahassee	4
3	Live Oak	2
4	Jacksonville	52
5	Leesburg	20
6	St. Petersburg	31
7	Daytona Beach	9
8	Gainesville	7
9	Orlando	24
10	Lakeland	21
11	Miami	14
12	Sarasota	21
13	Tampa	16
14	Panama City	12
15	West Palm Beach	13
16	Florida Keys	4
17	Ft. Lauderdale	12
18	Melbourne	22
19	Ft. Pierce	13
20	Naples	5
21	Ft. Myers	6
22	Port Charlotte	6
23	St. Augustine	8
24	Sanford	5
25	Kissimmee	7
Statewide Totals 357		

	Hydrocodone Caused Death					
	Age of Decedent					
Total	< 18	18-25	26-34	35-50	>50	
4	0	0	1	1	2	
3	0	0	0	2	1	
1	0	0	0	0	1	
19	0	0	3	3	13	
6	0	0	0	2	4	
12	0	0	0	3	9	
3	0	0	0	0	3	
3	1	0	0	1	1	
1	0	0	0	1	0	
4	0	0	0	1	3	
6	0	0	2	1	3	
6	0	0	1	3	2	
4	0	0	0	0	4	
3	0	0	1	1	1	
5	0	1	1	1	2	
1	0	0	0	1	0	
6	0	0	1	1	4	
7	0	0	1	3	3	
1	0	0	0	1	0	
1	0	0	0	0	1	
3	0	0	1	1	1	
0	0	0	0	0	0	
1	0	0	0	0	1	
4	0	2	0	1	1	
0	0	0	0	0	0	
104	1	3	12	28	60	

Hydrocodone Present at Death					
Age of Decedent					
Total	<18	18-25	26-34	35-50	>50
19	0	2	6	2	9
1	0	0	0	0	1
1	0	0	0	0	1
33	0	1	9	15	8
14	0	0	0	2	12
19	0	2	3	3	11
6	0	1	2	1	2
4	0	0	0	3	1
23	0	1	2	4	16
17	0	0	1	3	13
8	0	0	0	1	7
15	0	0	1	4	10
12	0	0	1	3	8
9	0	0	2	1	6
8	0	0	3	2	3
3	0	0	0	2	1
6	1	0	0	0	5
15	0	1	2	4	8
12	0	0	0	1	11
4	0	0	0	0	4
3	0	0	0	0	3
6	0	0	0	1	5
7	0	0	0	3	4
1	0	0	1	0	0
7	0	0	0	4	3
253	1	8	33	59	152

Methadone Deaths

Medical Examiner District and Area of Florida		
District	Area of Florida	
1	Pensacola	
2	Tallahassee	
3	Live Oak	
4	Jacksonville	
5	Leesburg	
6	St. Petersburg	
7	Daytona Beach	
8	Gainesville	
9	Orlando	
10	Lakeland	
11	Miami	
12	Sarasota	
13	Tampa	
14	Panama City	
15	West Palm Beach	
16	Florida Keys	
17	Ft. Lauderdale	
18	Melbourne	
19	Ft. Pierce	
20	Naples	
21	Ft. Myers	
22	Port Charlotte	
23	St. Augustine	
24	Sanford	
25	Kissimmee	
Statewide Totals		

Total Deaths with Methadone			
Total	Cause	Present	
11	4	7	
1	1	0	
6	5	1	
20	11	9	
19	13	6	
19	17	2	
5	2	3	
7	4	3	
9	4	5	
4	2	2	
10	4	6	
18	7	11	
16	8	8	
2	1	1	
11	9	2	
2	1	1	
11	10	1	
12	9	3	
4	2	2	
6	3	3	
9	5	4	
1	0	1	
4	2	2	
3	1	2	
1	0	1	
211	125	86	

Deaths with Methadone Only			
Total	Cause	Present	
2	0	2	
0	0	0	
0	0	0	
3	0	3	
4	4	0	
1	1	0	
2	0	2	
2	0	2	
1	0	1	
1	0	1	
1	0	1	
2	1	1	
2	1	1	
0	0	0	
0	0	0	
1	0	1	
1	0	1	
2	2	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
1	0	1	
0	0	0	
0	0	0	
26	9	17	

Deaths with Methadone in				
Combination with Other Drugs				
Total	Cause	Present		
9	4	5		
1	1	0		
6	5	1		
17	11	6		
15	9	6		
18	16	2		
3	2	1		
5	4	1		
8	4	4		
3	2	1		
9	4	5		
16	6	10		
14	7	7		
2	1	1		
11	9	2		
1	1	0		
10	10	0		
10	7	3		
4	2	2		
6	3	3		
9	5	4		
1	0	1		
3	2	1		
3	1	2		
1	0	1		
185	116	69		

Methadone Deaths by Age January – June 2017

Medical Examiner District and Area of Florida			
District	Area of Florida	Total	
1	Pensacola	11	
2	Tallahassee	1	
3	Live Oak	6	
4	Jacksonville	20	
5	Leesburg	19	
6	St. Petersburg	19	
7	Daytona Beach	5	
8	Gainesville	7	
9	Orlando	9	
10	Lakeland	4	
11	Miami	10	
12	Sarasota	18	
13	Tampa	16	
14	Panama City	2	
15	West Palm Beach	11	
16	Florida Keys	2	
17	Ft. Lauderdale	11	
18	Melbourne	12	
19	Ft. Pierce	4	
20	Naples	6	
21	Ft. Myers	9	
22	Port Charlotte	1	
23	St. Augustine	4	
24	Sanford	3	
25	Kissimmee	1	
Statewide Totals 211			

Methadone Caused Death					
	Age of Decedent				
Total	<18	18-25	26-34	35-50	>50
4	0	0	0	1	3
1	0	0	1	0	0
5	0	1	1	2	1
11	1	0	2	5	3
13	0	1	1	5	6
17	0	1	2	6	8
2	0	0	0	1	1
4	0	0	0	3	1
4	0	0	0	2	2
2	0	0	0	0	2
4	0	0	2	1	1
7	0	0	0	5	2
8	0	0	1	3	4
1	0	0	0	1	0
9	0	1	2	3	3
1	0	0	0	1	0
10	0	0	0	3	7
9	1	1	3	2	2
2	0	0	0	0	2
3	0	0	0	2	1
5	0	0	1	2	2
0	0	0	0	0	0
2	0	0	1	1	0
1	0	0	0	1	0
0	0	0	0	0	0
125	2	5	17	50	51

	Meth	nadone Pro	esent at [Death	
		Age of D	ecedent		
Total	<18	18-25	26-34	35-50	>50
7	0	0	3	2	2
0	0	0	0	0	0
1	0	0	0	0	1
9	1	0	1	4	3
6	0	0	1	4	1
2	0	0	0	1	1
3	0	0	1	2	0
3	0	0	3	0	0
5	0	2	0	1	2
2	0	0	0	1	1
6	0	2	1	1	2
11	0	0	3	6	2
8	0	0	2	3	3
1	0	0	1	0	0
2	0	0	0	1	1
1	0	0	0	1	0
1	0	0	0	0	1
3	0	0	1	2	0
2	0	0	1	1	0
3	0	0	1	0	2
4	0	0	1	1	2
1	0	0	0	0	1
2	0	0	1	1	0
2	0	0	1	1	0
1	0	0	0	1	0
86	1	4	22	34	25

Morphine Deaths January – June 2017

Medical Examiner District			
and Area of Florida			
District	Area of Florida		
1	Pensacola		
2	Tallahassee		
3	Live Oak		
4	Jacksonville		
5	Leesburg		
6	St. Petersburg		
7	Daytona Beach		
8	Gainesville		
9	Orlando		
10	Lakeland		
11	Miami		
12	Sarasota		
13	Tampa		
14	Panama City		
15	West Palm Beach		
16	Florida Keys		
17	Ft. Lauderdale		
18	Melbourne		
19	Ft. Pierce		
20	Naples		
21	Ft. Myers		
22	Port Charlotte		
23	St. Augustine		
24	Sanford		
25	Kissimmee		
Sta	Statewide Totals		

Total Deaths with Morphine		
Total	Cause	Present
22	11	11
8	1	7
3	3	0
87	73	14
45	26	19
57	34	23
34	22	12
11	7	4
90	51	39
28	10	18
102	75	27
53	13	40
62	42	20
12	3	9
132	116	16
4	2	2
86	55	31
39	25	14
22	17	5
15	8	7
47	42	5
12	3	9
12	5	7
28	22	6
21	13	8
1,032	679	353

Deaths with Morphine Only			
Total	Cause	Present	
0	0	0	
2	0	2	
1	1	0	
1	1	0	
3	2	1	
2	1	1	
2	0	2	
1	1	0	
5	0	5	
1	0	1	
3	0	3	
1	0	1	
3	0	3	
0	0	0	
2	0	2	
0	0	0	
9	3	6	
0	0	0	
3	3	0	
0	0	0	
2	1	1	
1	0	1	
0	0	0	
1	0	1	
2	0	2	
45	13	32	

Deaths with Morphine in Combination with Other Drugs			
Total	Cause	Present	
22	11	11	
6	1	5	
2	2	0	
86	72	14	
42	24	18	
55	33	22	
32	22	10	
10	6	4	
85	51	34	
27	10	17	
99	75	24	
52	13	39	
59	42	17	
12	3	9	
130	116	14	
4	2	2	
77	52	25	
39	25	14	
19	14	5	
15	8	7	
45	41	4	
11	3	8	
12	5	7	
27	22	5	
19	13	6	
987	666	321	

Morphine Deaths by Age January – June 2017

Medical Examiner District and Area of Florida			
District	Area of Florida	Total	
1	Pensacola	22	
2	Tallahassee	8	
3	Live Oak	3	
4	Jacksonville	87	
5	Leesburg	45	
6	St. Petersburg	57	
7	Daytona Beach	34	
8	Gainesville	11	
9	Orlando	90	
10	Lakeland	28	
11	Miami	102	
12	Sarasota	53	
13	Tampa	62	
14	Panama City	12	
15	West Palm Beach	132	
16	Florida Keys	4	
17	Ft. Lauderdale	86	
18	Melbourne	39	
19	Ft. Pierce	22	
20	Naples	15	
21	Ft. Myers	47	
22	Port Charlotte	12	
23	St. Augustine	12	
24	Sanford	28	
25	Kissimmee	21	
Statewide Totals 1,032			

Morphine Caused Death					
	Age of Decedent				
Total	<18	18-25	26-34	35-50	>50
11	0	2	3	6	0
1	0	0	0	1	0
3	0	0	0	0	3
73	0	8	24	21	20
26	1	3	5	4	13
34	0	0	12	11	11
22	0	1	6	9	6
7	0	0	1	4	2
51	0	4	9	26	12
10	0	0	0	4	6
75	2	7	21	25	20
13	0	1	5	3	4
42	1	1	8	16	16
3	0	0	1	2	0
116	0	14	42	27	33
2	0	1	0	1	0
55	0	4	15	22	14
25	1	1	6	10	7
17	0	3	4	2	8
8	0	2	1	5	0
42	0	4	12	14	12
3	0	0	1	1	1
5	0	1	0	1	3
22	0	2	6	11	3
13	0	3	4	4	2
679	5	62	186	230	196

	Mor	phine Pre	sent at D	eath	
		Age of D			
Total	<18	18-25	26-34	35-50	>50
11	0	1	4	1	5
7	1	0	0	0	6
0	0	0	0	0	0
14	1	0	2	6	5
19	0	1	2	10	6
23	0	3	3	8	9
12	0	3	1	3	5
4	0	0	0	3	1
39	0	0	4	4	31
18	0	0	3	3	12
27	0	1	6	5	15
40	0	3	5	16	16
20	0	2	4	9	5
9	0	1	2	2	4
16	0	2	1	6	7
2	0	0	0	1	1
31	2	2	10	7	10
14	0	0	4	4	6
5	0	0	2	1	2
7	0	1	2	2	2
5	0	0	1	2	2
9	0	0	0	1	8
7	0	0	4	1	2
6	0	0	2	2	2
8	0	1	1	2	4
353	4	21	63	99	166

Fentanyl Deaths

Medical Examiner District			
and Area of Florida			
District	Area of Florida		
1	Pensacola		
2	Tallahassee		
3	Live Oak		
4	Jacksonville		
5	Leesburg		
6	St. Petersburg		
7	Daytona Beach		
8	Gainesville		
9	Orlando		
10	Lakeland		
11	Miami		
12	Sarasota		
13	Tampa		
14	Panama City		
15	West Palm Beach		
16	Florida Keys		
17	Ft. Lauderdale		
18	Melbourne		
19	Ft. Pierce		
20	Naples		
21	Ft. Myers		
22	Port Charlotte		
23	St. Augustine		
24	Sanford		
25	Kissimmee		
Statewide Totals			

Total Deaths with Fentanyl			
Total	Cause	Present	
8	7	1	
1	1	0	
2	1	1	
175	146	29	
33	26	7	
27	26	1	
25	19	6	
3	3	0	
56	38	18	
6	6	0	
81	66	15	
37	24	13	
24	21	3	
6	4	2	
114	99	15	
1	0	1	
78	67	11	
37	27	10	
23	13	10	
6	4	2	
33	27	6	
3	2	1	
11	10	1	
15	13	2	
20	17	3	
825	667	158	

Deaths with Fentanyl Only			
Total	Cause	Present	
0	0	0	
1	1	0	
1	0	1	
9	8	1	
4	0	4	
5	5	0	
0	0	0	
0	0	0	
5	3	2	
0	0	0	
3	0	3	
1	1	0	
4	3	1	
0	0	0	
12	11	1	
0	0	0	
7	6	1	
4	2	2	
4	1	3	
0	0	0	
3	3	0	
0	0	0	
0	0	0	
1	1	0	
0	0	0	
64	45	19	

Deaths with Fentanyl in Combination with Other Drugs					
Total	Cause	Present			
8	7	1			
0	0	0			
1	1	0			
166	138	28			
29	26	3			
22	21	1			
25	19	6			
3	3	0			
51	35	16			
6	6	0			
78	66	12			
36	23	13			
20	18	2			
6	4	2			
102	88	14			
1	0	1			
71	61	10			
33	25	8			
19	12	7			
6	4	2			
30	24	6			
3	2	1			
11	10	1			
14	12	2			
20	17	3			
761	622	139			

Fentanyl Deaths by Age

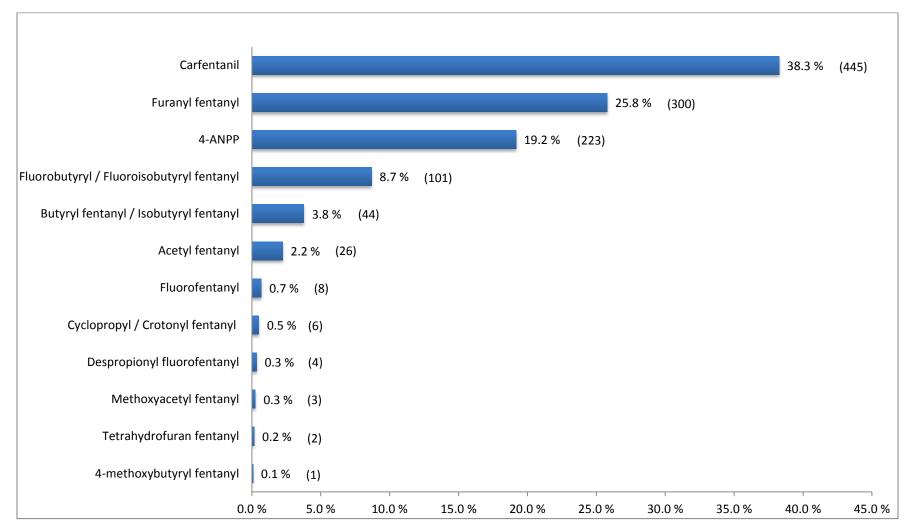
Medical Examiner District and Area of Florida			
District	Area of Florida	Total	
1	Pensacola	8	
2	Tallahassee	1	
3	Live Oak	2	
4	Jacksonville	175	
5	Leesburg	33	
6	St. Petersburg	27	
7	Daytona Beach	25	
8	Gainesville	3	
9	Orlando	56	
10	Lakeland	6	
11	Miami	81	
12	Sarasota	37	
13	Tampa	24	
14	Panama City	6	
15	West Palm Beach	114	
16	Florida Keys	1	
17	Ft. Lauderdale	78	
18	Melbourne	37	
19	Ft. Pierce	23	
20	Naples	6	
21	Ft. Myers	33	
22	Port Charlotte	3	
23	St. Augustine	11	
24	Sanford	15	
25	Kissimmee	20	
Statewide Totals 825			

	Fentanyl Caused Death					
	Age of Decedent					
Total	<18	18-25	26-34	35-50	>50	
7	0	1	3	2	1	
1	0	0	0	0	1	
1	0	0	1	0	0	
146	0	18	42	54	32	
26	0	2	7	11	6	
26	0	2	8	11	5	
19	0	0	8	9	2	
3	0	0	1	2	0	
38	0	2	9	20	7	
6	0	0	0	2	4	
66	1	10	19	23	13	
24	0	4	7	9	4	
21	0	1	3	13	4	
4	0	1	1	2	0	
99	0	12	35	30	22	
0	0	0	0	0	0	
67	0	12	22	26	7	
27	1	1	12	9	4	
13	0	2	5	2	4	
4	0	1	1	2	0	
27	0	4	6	9	8	
2	0	0	0	0	2	
10	0	1	2	3	4	
13	0	1	3	8	1	
17	0	3	4	8	2	
667	2	78	199	255	133	

	Fentanyl Present at Death						
Age of Decedent							
Total	<18 18-25 26-34 35-50 >50						
1	0	0	0	1	0		
0	0	0	0	0	0		
1	0	1	0	0	0		
29	1	1	12	8	7		
7	0	1	1	1	4		
1	0	0	0	1	0		
6	0	1	2	2	1		
0	0	0	0	0	0		
18	1	1	2	2	12		
0	0	0	0	0	0		
15	2	1	3	3	6		
13	0	1	5	5	2		
3	1	1	0	0	1		
2	0	0	1	0	1		
15	0	3	2	3	7		
1	0	0	0	0	1		
11	0	2	1	4	4		
10	0	0	2	2	6		
10	1	1	1	2	5		
2	0	0	0	0	2		
6	0	0	1	3	2		
1	0	0	0	0	1		
1	0	0	0	0	1		
2	0	0	0	0	2		
3	0	1	1	1	0		
158	6	15	34	38	65		

Frequency of Occurrence of Fentanyl Analogs

January – June 2017



Note: Fluorobutyryl / Fluoroisobutyryl fentanyl includes the analytes para-fluoroisobutyryl fentanyl, para-fluorobutyryl fentanyl, fluoroisobutyryl fentanyl, and fluorobutyryl fentanyl. Fluorofentanyl includes the analytes fluorofentanyl, ortho-fluorofentanyl, and para-fluorofentanyl. Percentages may not sum to 100 percent because of rounding.

Fentanyl Analog Deaths

Medical Examiner District				
and a	and Area of Florida			
District	Area of Florida			
1	Pensacola			
2	Tallahassee			
3	Live Oak			
4	Jacksonville			
5	Leesburg			
6	St. Petersburg			
7	Daytona Beach			
8	Gainesville			
9	Orlando			
10	Lakeland			
11	Miami			
12	Sarasota			
13	Tampa			
14	Panama City			
15	West Palm Beach			
16	Florida Keys			
17	Ft. Lauderdale			
18	Melbourne			
19	Ft. Pierce			
20	Naples			
21	Ft. Myers			
22	Port Charlotte			
23	St. Augustine			
24	Sanford			
25	Kissimmee			
Statewide Totals				

Total Deaths with					
	Fentanyl Analogs				
Total Cause Present					
14	14	0			
2	2	0			
1	1	0			
77	70	7			
45	42	3			
39	35	4			
16	16	0			
11	10	1			
39	37	2			
17	17	0			
79	77	2			
111	110	1			
12	12	0			
3	3	0			
181	174	7			
1	1	0			
132	129	3			
30	28	2			
20	20	0			
2	2	0			
28	25	3			
0	0	0			
4	4	0			
9	9	0			
2	2	0			
875	840	35			

Deaths with			
Fenta	nyl Analogs (Only	
Total	Cause	Present	
0	0	0	
0	0	0	
0	0	0	
3	3	0	
4	4	0	
5	5	0	
1	1	0	
1	1	0	
3	3	0	
2	2	0	
3	3	0	
9	9	0	
2	2	0	
0	0	0	
33	33	0	
0	0	0	
16	16	0	
0	0	0	
4	4	0	
0	0	0	
3	3	0	
0	0	0	
0	0	0	
2	2	0	
0	0	0	
91	91	0	

Deaths with Fentanyl Analogs in Combination with Other Drugs			
Total	Cause	Present	
14	14	0	
2	2	0	
1	1	0	
74	67	7	
41	38	3	
34	30	4	
15	15	0	
10	9	1	
36	34	2	
15	15	0	
76	74	2	
102	101	1	
10	10	0	
3	3	0	
148	141	7	
1	1	0	
116	113	3	
30	28	2	
16	16	0	
2	2	0	
25	22	3	
0	0	0	
4	4	0	
7	7	0	
2	2	0	
784	749	35	

Fentanyl Analog Deaths by Age January – June 2017

Medical Examiner District and Area of Florida					
District	District Area of Florida				
1	Pensacola	14			
2	Tallahassee	2			
3	Live Oak	1			
4	Jacksonville	77			
5	Leesburg	45			
6	St. Petersburg	39			
7	Daytona Beach	16			
8	Gainesville	11			
9	Orlando	39			
10	Lakeland	17			
11	Miami	79			
12	Sarasota	111			
13	Tampa	12			
14	Panama City	3			
15	West Palm Beach	181			
16	Florida Keys	1			
17	Ft. Lauderdale	132			
18	Melbourne	30			
19	Ft. Pierce	20			
20	Naples	2			
21	Ft. Myers	28			
22	Port Charlotte	0			
23	St. Augustine	4			
24	Sanford	9			
25	Kissimmee	2			
Statewide Totals 875					

	Fentanyl Analogs Caused Death					
	Age of Decedent					
Total	<18	18-25	26-34	35-50	>50	
14	0	5	3	4	2	
2	0	0	1	0	1	
1	0	0	0	0	1	
70	0	6	21	29	14	
42	0	6	18	15	3	
35	0	5	11	14	5	
16	0	2	5	8	1	
10	0	0	3	6	1	
37	0	4	10	13	10	
17	0	1	4	7	5	
77	0	6	25	27	19	
110	1	15	35	40	19	
12	1	1	3	4	3	
3	0	1	1	1	0	
174	0	37	65	49	23	
1	0	0	0	1	0	
129	0	14	45	41	29	
28	1	0	12	10	5	
20	0	1	13	5	1	
2	0	0	1	1	0	
25	0	3	10	8	4	
0	0	0	0	0	0	
4	0	1	2	1	0	
9	0	2	3	3	1	
2	0	0	0	1	1	
840	3	110	291	288	148	

	Fentanyl Analogs Present at Death					
	Age of Decedent					
Total	<18	18-25	26-34	35-50	>50	
0	0	0	0	0	0	
0	0	0	0	0	0	
0	0	0	0	0	0	
7	0	1	2	3	1	
3	0	0	2	0	1	
4	0	0	0	2	2	
0	0	0	0	0	0	
1	0	0	1	0	0	
2	0	0	1	0	1	
0	0	0	0	0	0	
2	0	1	0	0	1	
1	0	0	0	0	1	
0	0	0	0	0	0	
0	0	0	0	0	0	
7	0	0	3	2	2	
0	0	0	0	0	0	
3	0	1	2	0	0	
2	0	0	1	1	0	
0	0	0	0	0	0	
0	0	0	0	0	0	
3	0	0	1	2	0	
0	0	0	0	0	0	
0	0	0	0	0	0	
0	0	0	0	0	0	
0	0	0	0	0	0	
35	0	3	13	10	9	

Heroin Deaths

Medical Examiner District			
and Area of Florida			
District	Area of Florida		
1	Pensacola		
2	Tallahassee		
3	Live Oak		
4	Jacksonville		
5	Leesburg		
6	St. Petersburg		
7	Daytona Beach		
8	Gainesville		
9	Orlando		
10	Lakeland		
11	Miami		
12	Sarasota		
13	Tampa		
14	Panama City		
15	West Palm Beach		
16	Florida Keys		
17	Ft. Lauderdale		
18	Melbourne		
19	Ft. Pierce		
20	Naples		
21	Ft. Myers		
22	Port Charlotte		
23	St. Augustine		
24	Sanford		
25 Kissimmee			
Statewide Totals			

Total Deaths with Heroin			
Total	Cause	Present	
15	11	4	
0	0	0	
1	1	0	
59	58	1	
12	12	0	
11	10	1	
18	13	5	
2	2	0	
39	37	2	
3	3	0	
52	51	1	
11	9	2	
33	31	2	
3	3	0	
116	110	6	
2	1	1	
94	84	10	
11	11	0	
9	9	0	
6	5	1	
17	17	0	
1	1	0	
6	4	2	
18	18	0	
9	8	1	
548	509	39	

Deaths with Heroin Only			
Total	Cause	Present	
0	0	0	
0	0	0	
0	0	0	
1	1	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
1	1	0	
0	0	0	
1	1	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
3	3	0	

Deaths with Heroin in			
Combination with Other Drugs			
Total	Cause	Present	
15	11	4	
0	0	0	
1	1	0	
58	57	1	
12	12	0	
11	10	1	
18	13	5	
2	2	0	
39	37	2	
3	3	0	
52	51	1	
11	9	2	
33	31	2	
3	3	0	
115	109	6	
2	1	1	
93	83	10	
11	11	0	
9	9	0	
6	5	1	
17	17	0	
1	1	0	
6	4	2	
18	18	0	
9	8	1	
545	506	39	

Heroin Deaths by Age January – June 2017

Medical Examiner District and Area of Florida				
District	Area of Florida	Total		
1	Pensacola	15		
2	Tallahassee	0		
3	Live Oak	1		
4	Jacksonville	59		
5	Leesburg	12		
6	St. Petersburg	11		
7	Daytona Beach	18		
8	Gainesville	2		
9	Orlando	39		
10	Lakeland	3		
11	Miami	52		
12	Sarasota	11		
13	Tampa	33		
14	Panama City	3		
15	West Palm Beach	116		
16	Florida Keys	2		
17	Ft. Lauderdale	94		
18	Melbourne	11		
19	Ft. Pierce	9		
20	Naples	6		
21	Ft. Myers	17		
22	Port Charlotte	1		
23	St. Augustine	6		
24	Sanford	18		
25	Kissimmee	9		
Stat	Statewide Totals 548			

	Heroin Caused Death				
		Age of De	ecedent		
Total	<18	18-25	26-34	35-50	>50
11	0	2	3	6	0
0	0	0	0	0	0
1	0	0	0	0	1
58	0	8	22	19	9
12	0	1	4	4	3
10	0	1	6	3	0
13	0	1	4	5	3
2	0	0	0	1	1
37	0	4	8	17	8
3	0	0	1	1	1
51	1	6	15	15	14
9	0	0	2	6	1
31	1	1	8	12	9
3	0	1	1	1	0
110	0	15	42	25	28
1	0	0	0	1	0
84	0	17	23	29	15
11	1	0	3	5	2
9	0	2	4	2	1
5	0	1	1	3	0
17	0	2	5	4	6
1	0	0	1	0	0
4	0	0	2	2	0
18	0	1	5	10	2
8	0	1	4	3	0
509	3	64	164	174	104

	Heroin Present at Death				
		Age of D	ecedent		
Total	<18	18-25	26-34	35-50	>50
4	0	1	1	0	2
0	0	0	0	0	0
0	0	0	0	0	0
1	0	0	0	0	1
0	0	0	0	0	0
1	0	0	0	1	0
5	0	1	1	1	2
0	0	0	0	0	0
2	0	0	0	0	2
0	0	0	0	0	0
1	0	0	1	0	0
2	0	0	0	1	1
2	0	0	2	0	0
0	0	0	0	0	0
6	0	2	1	2	1
1	0	0	0	1	0
10	0	0	5	4	1
0	0	0	0	0	0
0	0	0	0	0	0
1	0	0	1	0	0
0	0	0	0	0	0
0	0	0	0	0	0
2	0	0	1	0	1
0	0	0	0	0	0
1	0	0	0	1	0
39	0	4	13	11	11

Cocaine Deaths

Medical Examiner District			
and Area of Florida			
District	Area of Florida		
1	Pensacola		
2	Tallahassee		
3	Live Oak		
4	Jacksonville		
5	Leesburg		
6	St. Petersburg		
7	Daytona Beach		
8	Gainesville		
9	Orlando		
10	Lakeland		
11	Miami		
12	Sarasota		
13	Tampa		
14	Panama City		
15	West Palm Beach		
16	Florida Keys		
17	Ft. Lauderdale		
18	Melbourne		
19	Ft. Pierce		
20	Naples		
21	Ft. Myers		
22	Port Charlotte		
23	St. Augustine		
24	Sanford		
25	Kissimmee		
Statewide Totals			

Total Deaths with Cocaine			
Total	Cause	Present	
25	15	10	
4	3	1	
1	0	1	
179	112	67	
57	39	18	
96	63	33	
47	16	31	
23	15	8	
115	73	42	
32	25	7	
184	110	74	
101	78	23	
51	26	25	
5	4	1	
230	178	52	
5	1	4	
165	122	43	
59	40	19	
43	24	19	
17	9	8	
72	46	26	
8	3	5	
20	2	18	
14	9	5	
31	16	15	
1.584	1.029	555	

Deaths with Cocaine Only			
Total	Cause	Present	
6	5	1	
2	1	1	
0	0	0	
24	14	10	
9	6	3	
16	11	5	
7	6	1	
6	4	2	
16	7	9	
7	7	0	
15	6	9	
11	7	4	
11	4	7	
0	0	0	
30	21	9	
0	0	0	
22	15	7	
4	2	2	
2	2	0	
2	2	0	
10	8	2	
1	1	0	
1	0	1	
4	3	1	
3	0	3	
209	132	77	

Deaths with Cocaine in				
	Combination with Other Drugs			
Total	Cause	Present		
19	10	9		
2	2	0		
1	0	1		
155	98	57		
48	33	15		
80	52	28		
40	10	30		
17	11	6		
99	66	33		
25	18	7		
169	104	65		
90	71	19		
40	22	18		
5	4	1		
200	157	43		
5	1	4		
143	107	36		
55	38	17		
41	22	19		
15	7	8		
62	38	24		
7	2	5		
19	2	17		
10	6	4		
28	16	12		
1,375	897	478		

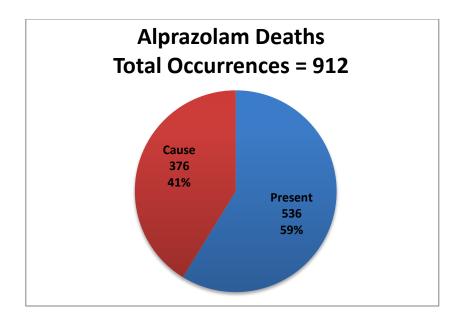
Cocaine Deaths by Age January – June 2017

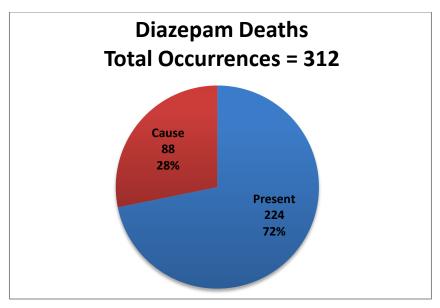
Medical Examiner District and Area of Florida					
District	Area of Florida	Total			
1	Pensacola	25			
2	Tallahassee	4			
3	Live Oak	1			
4	Jacksonville	179			
5	Leesburg	57			
6	St. Petersburg	96			
7	Daytona Beach	47			
8	Gainesville	23			
9	Orlando	115			
10	Lakeland	32			
11	Miami	184			
12	Sarasota	101			
13	Tampa	51			
14	Panama City	5			
15	West Palm Beach	230			
16	Florida Keys	5			
17	Ft. Lauderdale	165			
18	Melbourne	59			
19	Ft. Pierce	43			
20	Naples	17			
21	Ft. Myers	72			
22	Port Charlotte	8			
23	St. Augustine	20			
24	Sanford	14			
25	Kissimmee	31			
Stat	1,584				

Cocaine Caused Death							
Age of Decedent							
Total	<18	18-25	26-34	35-50	>50		
15	0	3	1	5	6		
3	0	0	1	0	2		
0	0	0	0	0	0		
112	1	8	30	38	35		
39	0	2	10	11	16		
63	0	3	15	22	23		
16	0	1	0	10	5		
15	0	1	2	8	4		
73	0	6	17	32	18		
25	0	3	2	8	12		
110	1	14	23	34	38		
78	1	6	18	34	19		
26	0	1	3	8	14		
4	0	1	0	2	1		
178	0	24	52	64	38		
1	0	0	0	1	0		
122	0	15	32	42	33		
40	2	1	14	16	7		
24	0	1	6	8	9		
9	0	1	2	3	3		
46	0	4	15	16	11		
3	0	0	0	2	1		
2	0	0	0	0	2		
9	0	0	2	2	5		
16	0	2	4	10	0		
1,029	5	97	249	376	302		

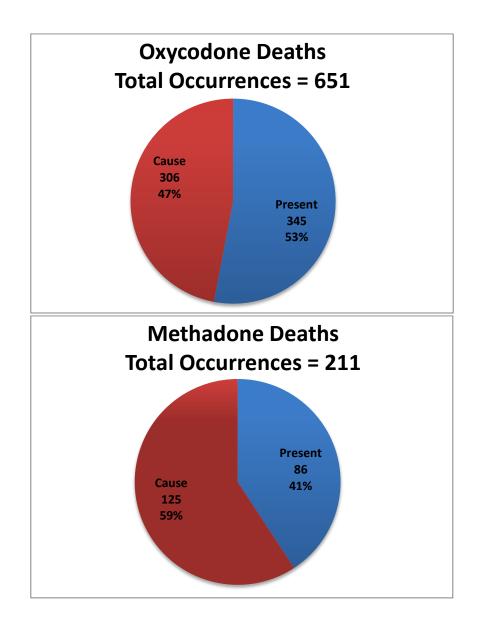
Cocaine Present at Death								
Age of Decedent								
Total	<18	18-25	26-34	35-50	>50			
10	0	0	6	3	1			
1	0	0	0	1	0			
1	0	0	0	1	0			
67	0	5	23	21	18			
18	0	0	8	5	5			
33	0	6	3	12	12			
31	0	2	9	13	7			
8	0	2	0	3	3			
42	2	5	7	16	12			
7	0	0	2	1	4			
74	0	10	18	22	24			
23	0	0	7	12	4			
25	0	3	6	10	6			
1	0	0	0	1	0			
52	2	9	12	18	11			
4	0	0	2	1	1			
43	0	9	9	18	7			
19	1	1	7	7	3			
19	0	2	7	2	8			
8	0	2	4	2	0			
26	0	4	6	6	10			
5	0	0	2	2	1			
18	0	1	6	6	5			
5	0	1	1	3	0			
15	0	4	5	5	1			
555	5	66	150	191	143			

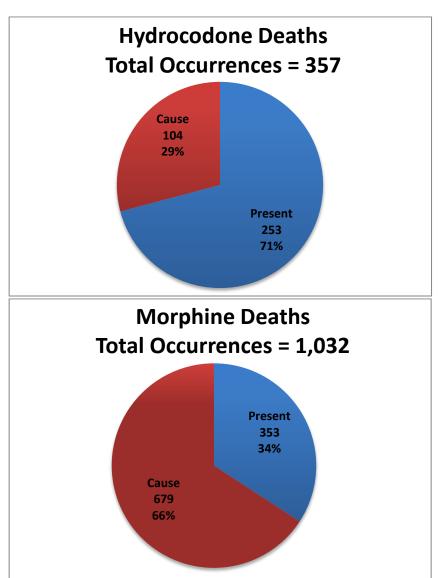
Drug Detected at Death: Cause vs. Present



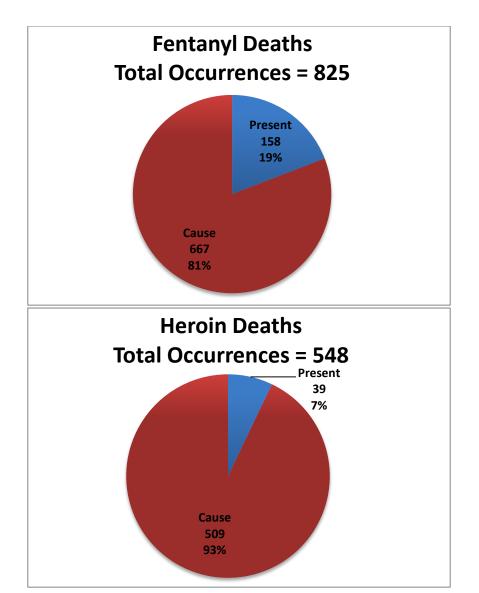


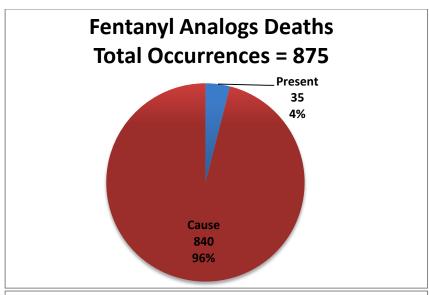
Drug Detected at Death: Cause vs. Present

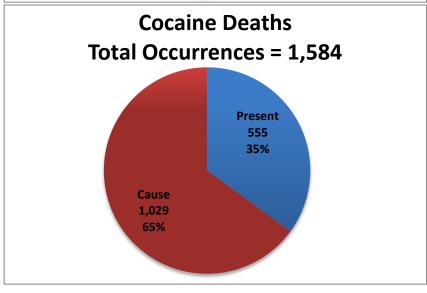




Drug Detected at Death: Cause vs. Present

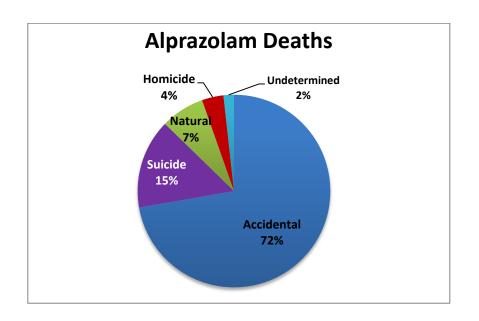


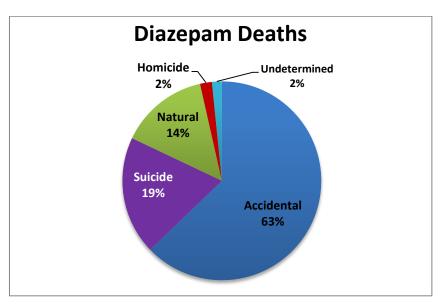




Manner of Death for Cases Reported

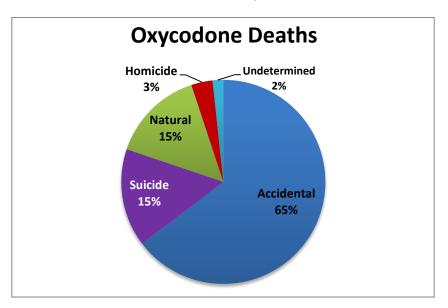
(Accidental, Homicide, Natural, Suicide, or Undetermined)

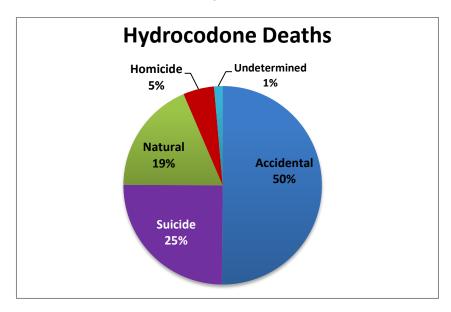


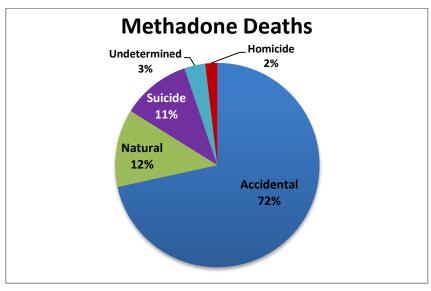


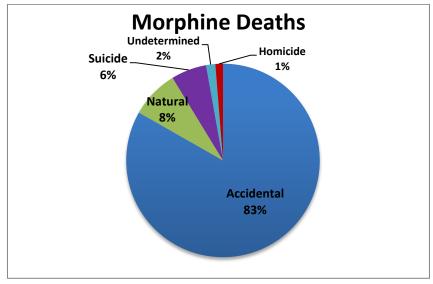
Manner of Death for Cases Reported

(Accidental, Homicide, Natural, Suicide, or Undetermined)



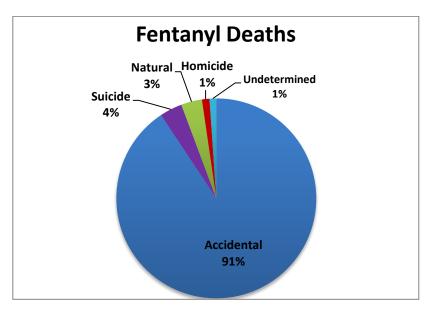


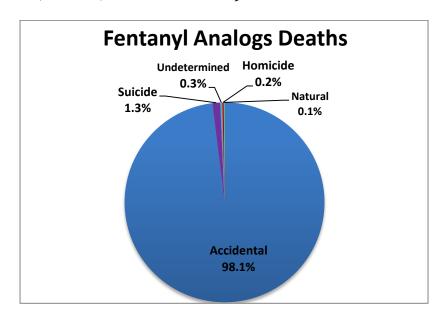


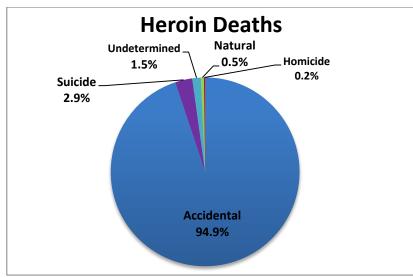


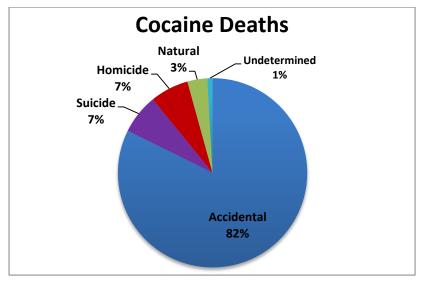
Manner of Death for Cases Reported

(Accidental, Homicide, Natural, Suicide, or Undetermined)









Glossary

4-ANPP (despropionyl fentanyl) – A precursor chemical used in the manufacture of illicit fentanyl. 4-ANPP is also a metabolite of illicit fentanyl and fentanyl-related analogs.

Amphetamines – A group of synthetic psychoactive drugs called central nervous system (CNS) stimulants. The collective group of amphetamines includes amphetamine, dextroamphetamine, and methamphetamine. Methamphetamine is also known as "meth," "crank," "speed," and "tina." Methamphetamine is metabolized to amphetamine, and thus, occurrences of amphetamine may represent methamphetamine ingestion rather than amphetamine ingestion.

Benzodiazepines – A family of sedative-hypnotic drugs indicated for the treatment of stress, anxiety, seizures, and alcohol withdrawal. Benzodiazepines are often referred to as "minor tranquilizers." Xanax (alprazolam) and Valium (diazepam) are the most commonly prescribed drugs in this drug class. Many benzodiazepines are interconverted to one another, making occurrences of these drugs difficult to interpret. Exceptions include alprazolam, clonazepam, lorazepam, and midazolam.

Buprenorphine – A semi-synthetic opioid known as Buprenex, Suboxone, and Subutex indicated for the treatment of opioid addiction and moderate to severe pain.

Cannabinoids – A series of compounds found in the marijuana plant, the most psychoactive of which is THC, a strong, illicit hallucinogen. Street names for this drug are often associated with a geographic area from which it came but also include generic names like "ganja," "MJ," "ragweed," "reefer," and "grass."

Carisoprodol – Muscle relaxant indicated for the treatment of pain, muscle spasms, and limited mobility. It is often abused in conjunction with analgesics for enhanced euphoric effect. It is marketed as Soma.

Cathinones – A family of drugs containing one or more synthetic chemicals related to cathinone, an amphetamine-like stimulant found naturally in the Khat plant. They are cousins of MDMA and the amphetamine family of drugs, which includes amphetamine and methamphetamine.

Cocaine – An illicit stimulant. Powdered cocaine goes by many street names including "C," "blow," "snow," and "nose candy," while freebase cocaine is mostly commonly known as "crack."

Ethanol – Ethyl alcohol.

Glossary (Continued)

Fentanyl – Synthetic opioid analgesic supplied in transdermal patches and also available for oral, nasal, intravenous, and spinal administration. Fentanyl is also produced illicitly and currently most fentanyl occurrences represent the ingestion of illicit fentanyl rather than pharmaceutically manufactured fentanyl.

Fentanyl Analog – A synthetic opioid structurally similar to fentanyl. Many analogs of fentanyl are pharmacologically more potent than fentanyl. Carfentanil is an analog of fentanyl approved for veterinary use only.

Flunitrazepam (Rohypnol) – Commonly referred to as a "date rape" drug. It is a sedative-hypnotic drug in the benzodiazepine class. It often goes by the street name "roofies."

Gamma-Hydroxybutyric Acid (GHB) – A depressant, also known as a "date rape" drug. GHB often goes by the street name "easy lay," "scoop," "liquid X," "Georgia home boy," and "grievous bodily harm."

Hallucinogenic Phenethylamines/Piperazines – Includes such drugs as MDMA (Ecstasy, a hallucinogen), MDA (a psychedelic), MDEA (a psychedelic hallucinogenic), and piperazine derivatives. Ecstasy has multiple street names including "Molly," "E," "XTC," "love drug," and "clarity." MDMA is often also known by a large variety of embossed logos on the pills such as "Mitsubishis" and "Killer Bees."

Hallucinogenic Tryptamines – Natural tryptamines are commonly available in preparations of dried or brewed mushrooms, while tryptamine derivatives are sold in capsule, tablet, powder, or liquid forms. Street names include "Foxy-Methoxy," "alpha-O," and "5-MEO."

Halogenated Inhalants – Includes, but are not limited to, halogenated hydrocarbons, especially refrigerants such as difluoroethane, which is a component of "compressed air" electronics cleaners; these and similar halogenated substances are typically used illicitly as inhalants.

Heroin – An illicit narcotic derivative. It is a semi-synthetic product of opium. Heroin also has multiple street names including "H," "hombre," and "smack."

Hydrocarbon Inhalants – Includes toluene, benzene, components of gasoline, and other similar hydrocarbons typically used illicitly as inhalants.

Hydrocodone – A narcotic analgesic (pain killer). Vicodin and Lortab are two common drugs containing hydrocodone.

Hydromorphone – A narcotic analgesic (pain killer) used to treat moderate to severe pain. Marketed under the trade name Dilaudid, it is two to eight times more potent than morphine. Commonly used by abusers as a substitute for heroin.

Ketamine – An animal tranquilizer and a chemical relative of PCP. Street names for this drug include "special K," "vitamin K," and "cat valium."

Glossary (Continued)

Meperidine – A synthetic narcotic analgesic (pain killer) sold under the trade name Demerol. It is used for pre-anesthesia and the relief of moderate to severe pain.

Methadone – A synthetic narcotic analgesic (pain killer) commonly associated with heroin detoxification and maintenance programs and is also prescribed to treat severe pain. It has been increasingly prescribed in place of oxycodone for pain management. Dolophine is one form of methadone.

Morphine – A narcotic analgesic (pain killer) used to treat moderate to severe pain. MS (Morphine Sulfate), Kadian, and MS-Contin are the tablet forms; Roxanol is the liquid form. Heroin is metabolized to morphine, and thus, occurrences of morphine may represent heroin ingestion rather than morphine ingestion.

Nitrous Oxide (N2O) – Also known as "laughing gas," is an inhalant (gas) that produces light anesthesia and analgesia. "Whippets" are a common form of nitrous oxide.

Oxycodone – A narcotic analgesic (pain killer). OxyContin is one form of this drug and goes by the street name "OC." Percocet, Percodan, Roxicet, Tylox, and Roxicodone also contain oxycodone.

Oxymorphone – A narcotic analgesic (pain killer) that is often prescribed as Opana, Numorphan, and Numorphone.

Phencyclidine (PCP) – An illicit, dissociative anesthetic/hallucinogen. Common street names for this drug include "angel dust," "ace," "DOA," and "wack."

PCP Analog – A drug structurally related to phencyclidine.

Sympathomimetic Amines – A group of stimulants including phentermine (an appetite suppressant) and other sympathomimetic amines not tracked elsewhere in this report.

Synthetic Cannabinoids – Synthetic cannabinoids are manmade chemicals that are applied (often sprayed) onto plant material to mimic the effect of delta-9-tetrahydrocannabinol (THC), the psychoactive ingredient in the naturally grown marijuana plant (cannabis sativa). Synthetic cannabinoids, commonly known as "synthetic marijuana," "Spice," or "K2," are often sold in retail outlets as "herbal incense" or "potpourri" and are labeled "not for human consumption."

Tramadol – A synthetic narcotic analgesic sold under the trade name Ultram and Ultracet. Indications include the treatment of moderate to severe pain. It is a chemical analogue to codeine. Not currently a scheduled drug.

Glossary (Continued)

U-47700 – A synthetic opioid with a white or light-pink chalky appearance that is found in powder or tablet form. Common street names for this drug include "pink," "pinky," or "U4."

Zolpidem – A prescription medication used for the short-term treatment of insomnia; it is commonly known as Ambien.