

Drugs Identified in Deceased Persons by Florida Medical Examiners



2019 Interim Report

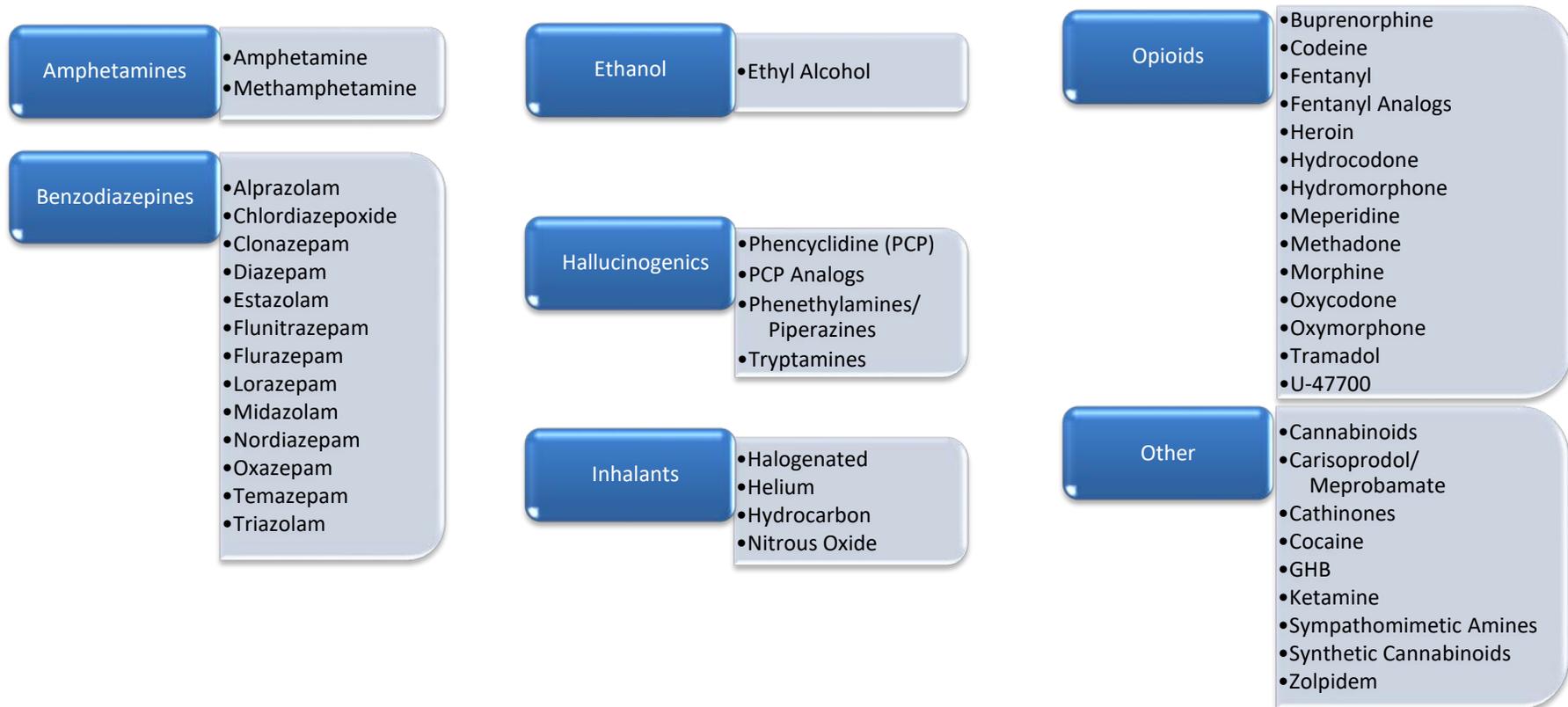
Data Collection

The State of Florida's Bureau of Vital Statistics reported 107,037 deaths in Florida during the first six months of 2019. 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 6,064 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 6,064 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 2019 (January – June) are listed below. **All comparisons are made to January - June 2018 data unless otherwise noted.**

- ✓ Total drug-related deaths increased by 1 percent (53 more).
- ✓ 2,879 opioid-related deaths were reported, which is a 2 percent increase (64 more). The opioids were identified as either the cause of death or merely present in the decedent.
- ✓ 1,973 opioid-caused deaths were reported, which is a 6 percent increase (108 more).
- ✓ 3,379 individuals (1 percent increase, 26 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.
- ✓ 1,975 individuals (9 percent increase, 158 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 most frequently occurring drugs found in decedents were ethyl alcohol (2,658), benzodiazepines (2,011, including 763 alprazolam occurrences), fentanyl (1,644), cocaine (1,418), cannabinoids (1,187), morphine (908), amphetamine (652), methamphetamine (645), fentanyl analogs (585), and oxycodone (564). 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 fentanyl (1,433), cocaine (835), morphine (486), fentanyl analogs (482), benzodiazepines (466, including 284 alprazolam deaths), ethyl alcohol (465), methamphetamine (406), heroin (400), amphetamine (240) and oxycodone (233). Fentanyl (87 percent), heroin (84 percent), fentanyl analogs (82 percent), methamphetamine (63 percent), cocaine (59 percent), methadone (55 percent), and morphine (54 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 3 percent (13 more) and deaths caused by heroin decreased by 0.5 percent (2 less).
- ✓ Occurrences of fentanyl increased by 26 percent (344 more) and deaths caused by fentanyl also increased by 28 percent (317 more).
- ✓ Occurrences of fentanyl analogs increased by 12 percent (64 more) and deaths caused by fentanyl analogs also increased by 10 percent (43 more).
- ✓ Occurrences of methadone decreased by 20 percent (41 less) and deaths caused by methadone also decreased by 24 percent (29 less).
- ✓ Occurrences of hydrocodone decreased by 17 percent (52 less) and deaths caused by hydrocodone also decreased by 1 percent (1 less).
- ✓ Occurrences of oxycodone decreased by 5.5 percent (33 less) and deaths caused by oxycodone also decreased by 16 percent (44 less).

(Highlights continued)

- ✓ Occurrences of cocaine decreased by 5 percent (71 less) and deaths caused by cocaine also decreased by 3 percent (22 less).
- ✓ Alprazolam (Xanax), diazepam (Valium), nordiazepam and clonazepam dominate the category of benzodiazepines. Occurrences of alprazolam decreased by 8 percent, diazepam decreased by 29 percent, nordiazepam decreased by 12 percent and clonazepam decreased by 16 percent. Alprazolam, diazepam, nordiazepam and clonazepam 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 (33 percent, 160 more) and amphetamine (31 percent, 153 more) both increased. Deaths caused by methamphetamine (41 percent, 118 more) and amphetamine (55 percent, 85 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 decreased by 66 percent (83 less) and deaths caused by cathinones decreased by 73 percent (55 less). The majority of cathinones reported were eutylone.
- ✓ Occurrences of synthetic cannabinoids decreased by 60 percent (40 less) and deaths caused by synthetic cannabinoids decreased by 73 percent (45 less). The analysis of synthetic cannabinoids is performed on a case-by-case basis when use is suspected. Increases of identified drug occurrence may represent increased surveillance testing; increased prevalence of the drug in the community or causing death; or both.
- ✓ Occurrences of U-47700 decreased significantly from January – June 2018 (33 cases) to January – June 2019 (1 case).
- ✓ There were a total of 15 occurrences of difluoroethane reported for January – June 2019.
- ✓ A total of 36 occurrences of mitragynine were reported for January – June 2019. Reporting of mitragynine by all districts will begin with the 2020 Drugs Identified in Deceased Persons reports.

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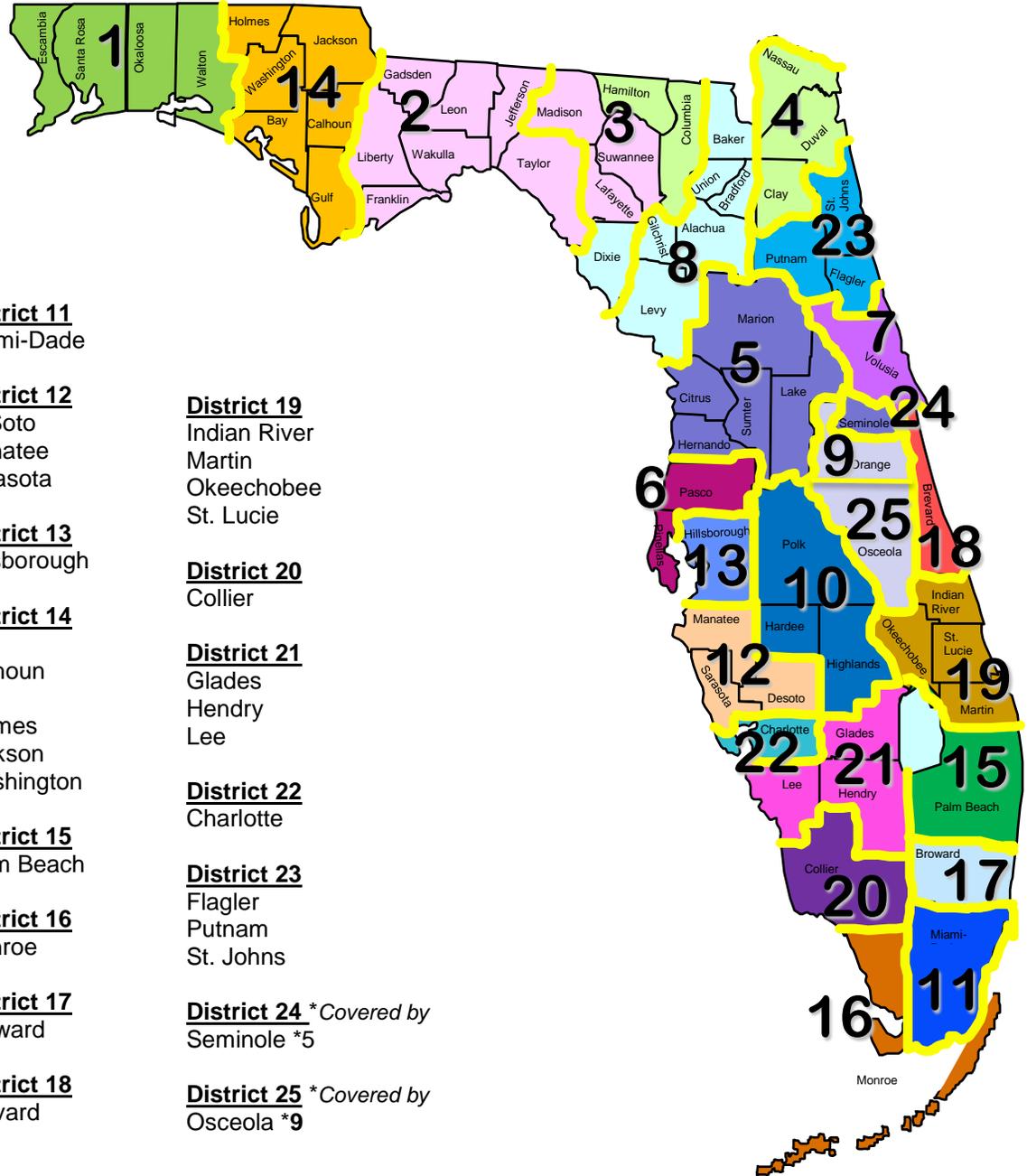
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Coverage Map

Florida Medical Examiner Districts



District 1

Escambia
Okaloosa
Santa Rosa
Walton

District 2

Franklin
Gadsden
Jefferson
Leon
Liberty
Taylor
Wakulla

District 3 *Covered by

Columbia *4
Dixie *8
Hamilton *4
Lafayette *2
Madison *2
Suwannee *2

District 4

Clay
Duval
Nassau

District 5

Citrus
Hernando
Lake
Marion
Sumter

District 6

Pasco
Pinellas

District 7

Volusia

District 8

Alachua
Baker
Bradford
Gilchrist
Levy
Union

District 9

Orange

District 10

Hardee
Highlands
Polk

District 11

Miami-Dade

District 12

DeSoto
Manatee
Sarasota

District 13

Hillsborough

District 14

Bay
Calhoun
Gulf
Holmes
Jackson
Washington

District 15

Palm Beach

District 16

Monroe

District 17

Broward

District 18

Brevard

District 19

Indian River
Martin
Okeechobee
St. Lucie

District 20

Collier

District 21

Glades
Hendry
Lee

District 22

Charlotte

District 23

Flagler
Putnam
St. Johns

District 24 *Covered by

Seminole *5

District 25 *Covered by

Osceola *9

Summary of Drug Occurrences in Decedents January – June 2019

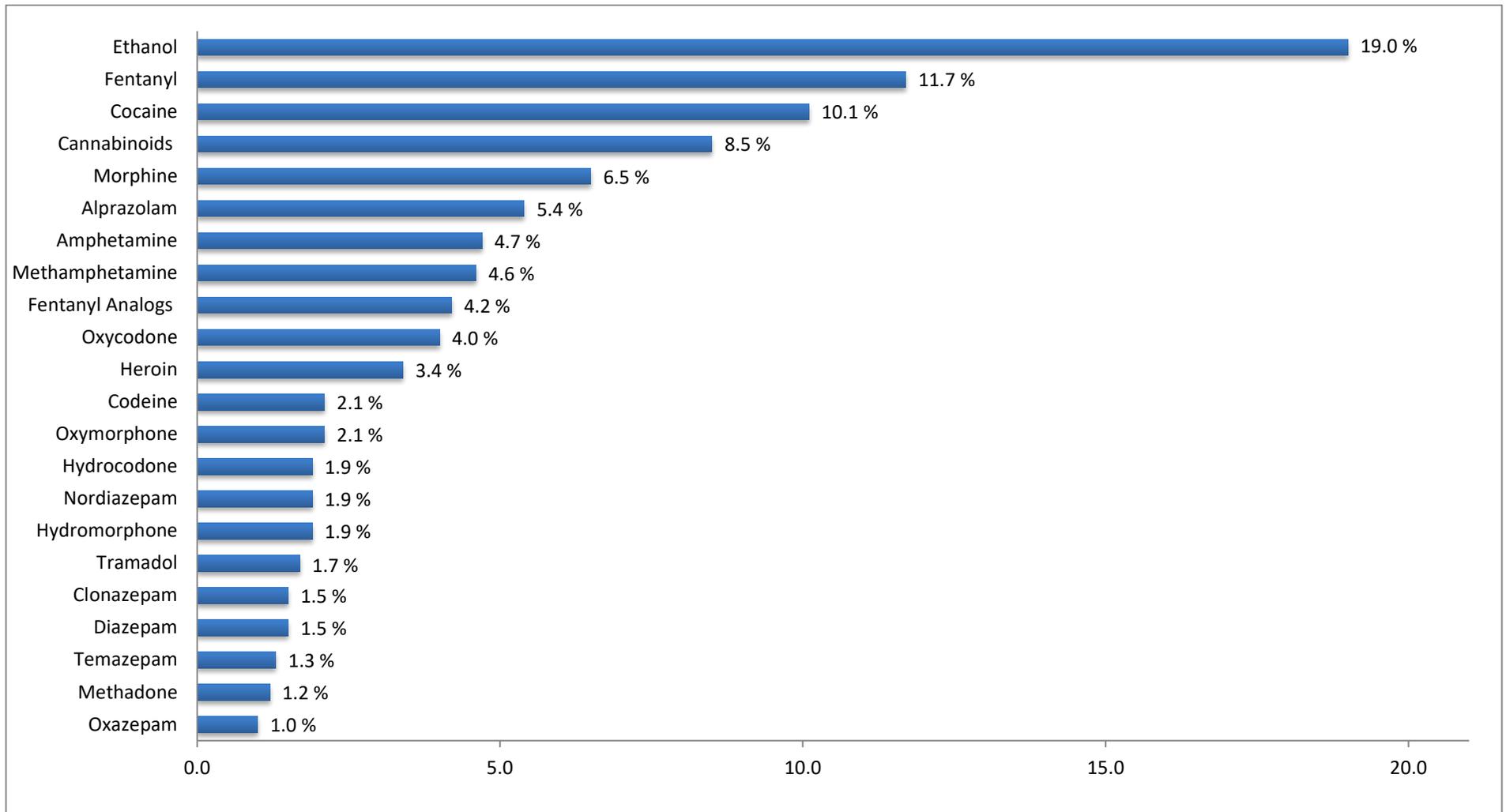
	DRUG PRESENT IN BODY	CAUSE	PRESENT	TOTAL OCCURRENCES
Amphetamines	Amphetamine	240	412	652
	Methamphetamine	406	239	645
Benzodiazepines	Alprazolam	284	479	763
	Chlordiazepoxide	5	37	42
	Clonazepam	46	160	206
	Diazepam	58	148	206
	Estazolam	2	1	3
	Flunitrazepam	0	0	0
	Flurazepam	1	0	1
	Lorazepam	14	93	107
	Midazolam	4	92	96
	Nordiazepam	32	228	260
	Oxazepam	5	136	141
	Temazepam	15	171	186
	Triazolam	0	0	0
Ethanol		465	2,193	2,658
Hallucinogenics	Phencyclidine (PCP)	0	0	0
	PCP Analogs	0	0	0
	Phenethylamines/Piperazines	19	18	37
	Tryptamines	1	1	2

Summary of Drug Occurrences in Decedents (continued)

	DRUG PRESENT IN BODY	CAUSE	PRESENT	TOTAL OCCURRENCES
Inhalants	Halogenated	13	2	15
	Helium	2	0	2
	Hydrocarbon	1	1	2
	Nitrous Oxide	2	0	2
Opioids	Buprenorphine	23	70	93
	Codeine	46	245	291
	Fentanyl	1,433	211	1,644
	Fentanyl Analogs	482	103	585
	Heroin	400	75	475
	Hydrocodone	81	180	261
	Hydromorphone	63	197	260
	Meperidine	0	3	3
	Methadone	92	75	167
	Morphine	486	422	908
	Oxycodone	233	331	564
	Oxymorphone	51	239	290
	Tramadol	47	192	239
	U-47700	1	0	1
Other	Cannabinoids	19	1,168	1,187
	Carisoprodol/Meprobamate	7	20	27
	Cathinones	20	22	42
	Cocaine	835	583	1,418
	GHB	1	0	1
	Ketamine	6	71	77
	Sympathomimetic Amines	2	19	21
	Synthetic Cannabinoids	17	10	27
	Zolpidem	13	58	71

Note: The total occurrences for buprenorphine and cannabinoids are under reported. The rate will vary from district-to-district based on the scope of drug analysis utilized by the medical examiner office. 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 2019



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, U-47700 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 2018	JANUARY – JUNE 2019	PERCENTAGE CHANGE
Amphetamines	Amphetamine	499	652	30.7%
	Methamphetamine	485	645	33.0%
Benzodiazepines	Alprazolam	830	763	-8.1%
	Chlordiazepoxide	37	42	13.5%
	Clonazepam	245	206	-15.9%
	Diazepam	291	206	-29.2%
	Estazolam	7	3	*
	Flunitrazepam	1	0	*
	Flurazepam	0	1	*
	Lorazepam	154	107	-30.5%
	Midazolam ¹	104	96	-7.7%
	Nordiazepam	297	260	-12.5%
	Oxazepam	179	141	-21.2%
	Temazepam	225	186	-17.3%
	Triazolam	2	0	*
Ethanol		2,495	2,658	6.5%
Hallucinogenics	Phencyclidine (PCP)	0	0	*
	PCP Analogs	3	0	*
	Phenethylamines/Piperazines	19	37	94.7%
	Tryptamines	4	2	*

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

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

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 Occurrences in Decedents (continued)

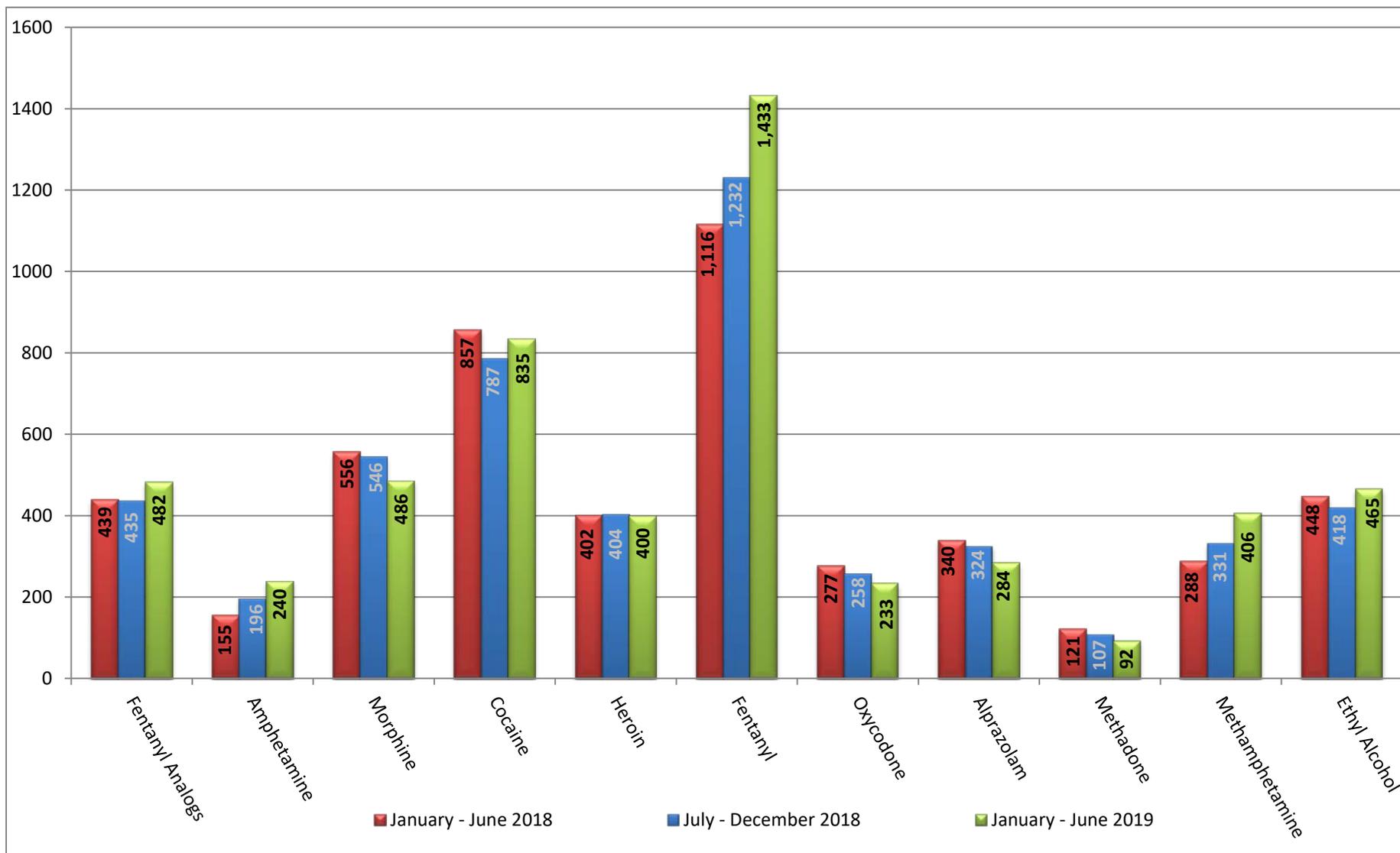
DRUG PRESENT IN BODY		JANUARY – JUNE 2018	JANUARY – JUNE 2019	PERCENTAGE CHANGE
Inhalants	Halogenated	29	15	-48.3%
	Helium	1	2	*
	Hydrocarbon	1	2	*
	Nitrous Oxide	0	2	*
Opioids	Buprenorphine	77	93	20.8%
	Codeine	271	291	7.4%
	Fentanyl	1,300	1,644	26.5%
	Fentanyl Analogs	521	585	12.3%
	Heroin	462	475	2.8%
	Hydrocodone	313	261	-16.6%
	Hydromorphone	313	260	-16.9%
	Meperidine	5	3	*
	Methadone	208	167	-19.7%
	Morphine	948	908	-4.2%
	Oxycodone	597	564	-5.5%
	Oxymorphone	263	290	10.3%
	Tramadol	232	239	3.0%
	U-47700	33	1	-97.0%
Other	Cannabinoids	1,300	1,187	-8.7%
	Carisoprodol/Meprobamate	42	27	-35.7%
	Cathinones	125	42	-66.4%
	Cocaine	1,489	1,418	-4.8%
	GHB	1	1	*
	Ketamine	70	77	10.0%
	Sympathomimetic Amines	17	21	23.5%
	Synthetic Cannabinoids	67	27	-59.7%
	Zolpidem	89	71	-20.2%

**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.

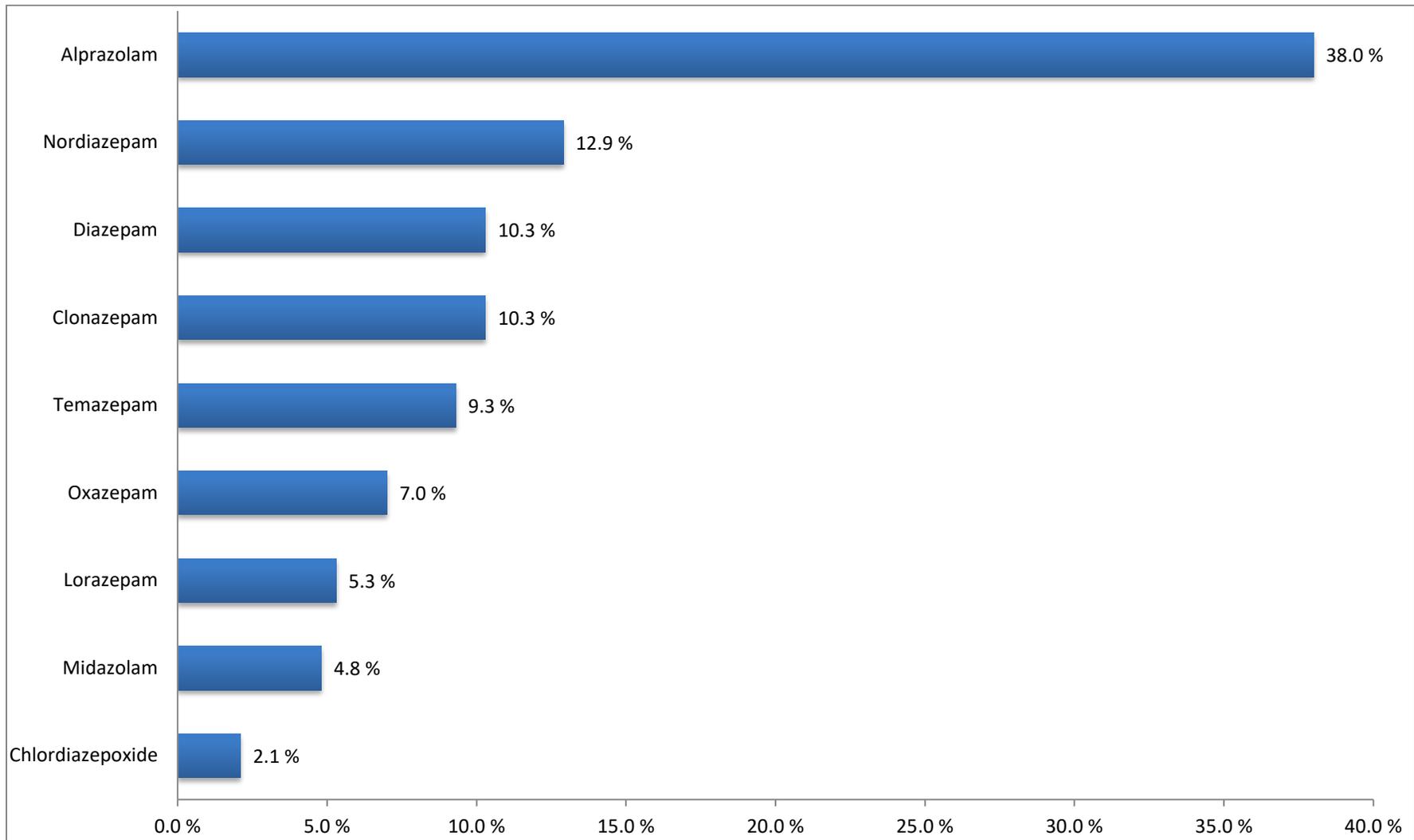
Comparison of Drug Caused Deaths

January 2018 to June 2019



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

Frequency of Occurrence of Benzodiazepines January – June 2019



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

January – June 2019

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 Alprazolam		
Total	Cause	Present
22	12	10
4	2	2
2	0	2
61	21	40
36	10	26
74	43	31
24	13	11
3	0	3
36	8	28
27	7	20
83	25	58
30	17	13
42	20	22
19	6	13
104	14	90
7	4	3
76	58	18
17	7	10
19	1	18
15	3	12
29	3	26
7	0	7
11	4	7
9	5	4
6	1	5
763	284	479

Deaths with Alprazolam Only		
Total	Cause	Present
2	0	2
0	0	0
0	0	0
1	0	1
7	1	6
1	1	0
2	0	2
0	0	0
6	1	5
4	0	4
6	0	6
6	1	5
2	0	2
1	0	1
7	0	7
3	0	3
5	0	5
1	0	1
1	0	1
1	0	1
1	0	1
2	0	2
0	0	0
1	0	1
0	0	0
60	4	56

Deaths with Alprazolam in Combination with Other Drugs		
Total	Cause	Present
20	12	8
4	2	2
2	0	2
60	21	39
29	9	20
73	42	31
22	13	9
3	0	3
30	7	23
23	7	16
77	25	52
24	16	8
40	20	20
18	6	12
97	14	83
4	4	0
71	58	13
16	7	9
18	1	17
14	3	11
28	3	25
5	0	5
11	4	7
8	5	3
6	1	5
703	280	423

Alprazolam Deaths by Age

January – June 2019

Medical Examiner District and Area of Florida		
District	Area of Florida	Total
1	Pensacola	22
2	Tallahassee	4
3	Live Oak	2
4	Jacksonville	61
5	Leesburg	36
6	St. Petersburg	74
7	Daytona Beach	24
8	Gainesville	3
9	Orlando	36
10	Lakeland	27
11	Miami	83
12	Sarasota	30
13	Tampa	42
14	Panama City	19
15	West Palm Beach	104
16	Florida Keys	7
17	Ft. Lauderdale	76
18	Melbourne	17
19	Ft. Pierce	19
20	Naples	15
21	Ft. Myers	29
22	Port Charlotte	7
23	St. Augustine	11
24	Sanford	9
25	Kissimmee	6
Statewide Totals		763

Alprazolam Caused Death						
Age of Decedent						
Total	<18	18-25	26-34	35-50	>50	
12	0	1	1	6	4	
2	0	1	0	1	0	
0	0	0	0	0	0	
21	0	2	5	9	5	
10	0	0	2	5	3	
43	0	6	7	15	15	
13	0	2	2	8	1	
0	0	0	0	0	0	
8	0	0	0	5	3	
7	0	1	1	3	2	
25	0	5	9	8	3	
17	0	0	3	6	8	
20	0	2	7	6	5	
6	0	1	2	3	0	
14	0	3	3	3	5	
4	0	0	2	1	1	
58	0	5	18	18	17	
7	0	1	1	3	2	
1	0	0	0	0	1	
3	0	1	0	1	1	
3	0	0	0	1	2	
0	0	0	0	0	0	
4	0	0	0	3	1	
5	0	2	1	0	2	
1	0	0	0	1	0	
284	0	33	64	106	81	

Alprazolam Present at Death						
Age of Decedent						
Total	<18	18-25	26-34	35-50	>50	
10	0	1	0	4	5	
2	0	0	1	0	1	
2	0	0	0	2	0	
40	1	1	7	19	12	
26	1	2	1	11	11	
31	0	1	3	13	14	
11	0	1	1	5	4	
3	0	0	0	3	0	
28	0	5	3	6	14	
20	0	2	2	4	12	
58	1	8	11	12	26	
13	0	0	1	2	10	
22	0	1	3	6	12	
13	0	0	1	5	7	
90	0	10	22	32	26	
3	0	0	0	1	2	
18	0	3	0	3	12	
10	0	0	4	2	4	
18	0	2	0	7	9	
12	0	0	2	5	5	
26	0	3	4	8	11	
7	0	0	3	1	3	
7	0	0	1	3	3	
4	0	0	1	1	2	
5	0	0	0	1	4	
479	3	40	71	156	209	

Diazepam Deaths by Age

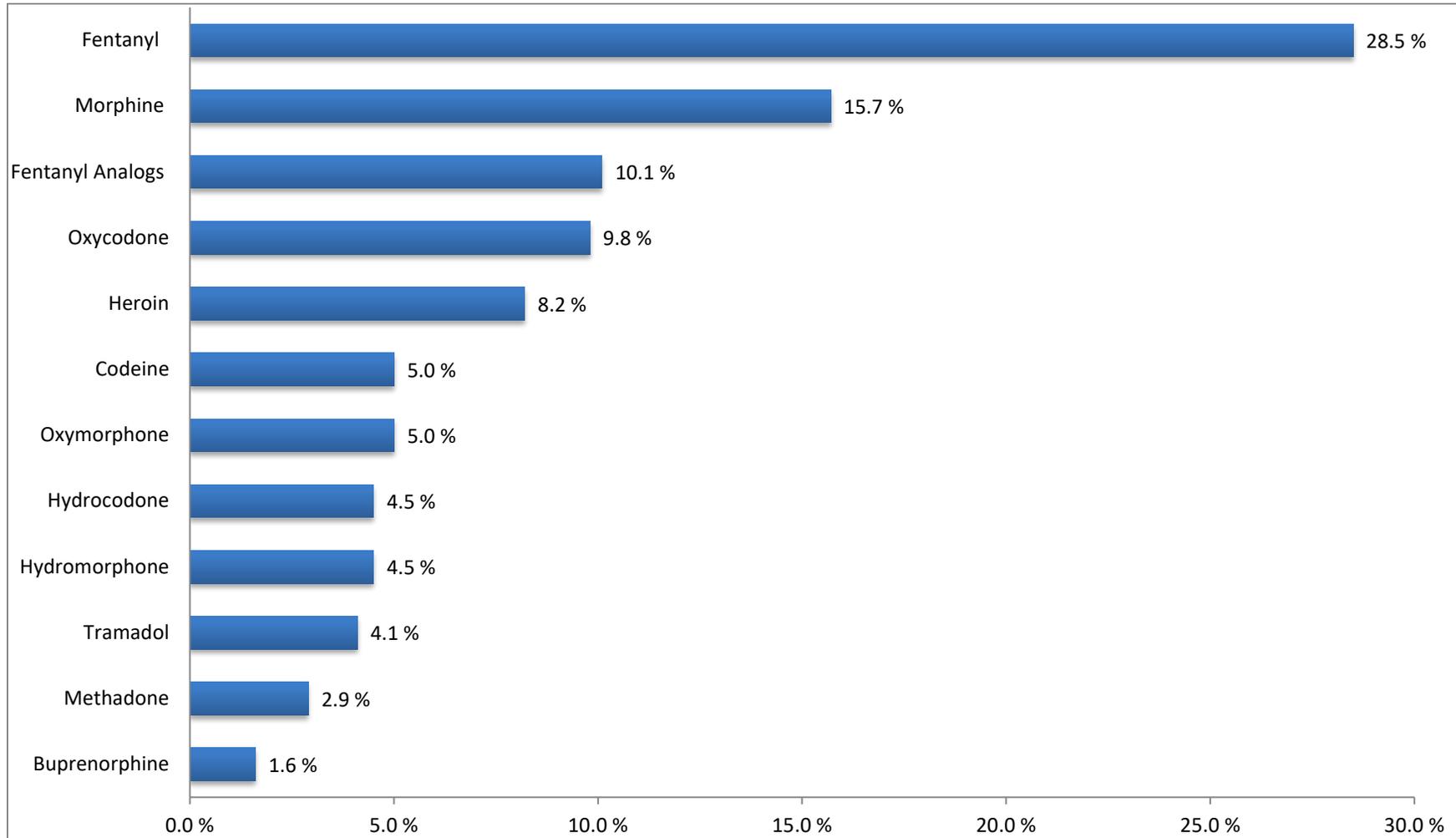
January – June 2019

Medical Examiner District and Area of Florida		
District	Area of Florida	Total
1	Pensacola	5
2	Tallahassee	1
3	Live Oak	1
4	Jacksonville	10
5	Leesburg	12
6	St. Petersburg	32
7	Daytona Beach	9
8	Gainesville	4
9	Orlando	14
10	Lakeland	7
11	Miami	20
12	Sarasota	18
13	Tampa	10
14	Panama City	2
15	West Palm Beach	19
16	Florida Keys	1
17	Ft. Lauderdale	12
18	Melbourne	3
19	Ft. Pierce	13
20	Naples	2
21	Ft. Myers	5
22	Port Charlotte	0
23	St. Augustine	1
24	Sanford	3
25	Kissimmee	2
Statewide Totals		206

Diazepam Caused Death						
Age of Decedent						
Total	< 18	18-25	26-34	35-50	>50	
3	0	0	1	2	0	
1	0	0	0	1	0	
0	0	0	0	0	0	
2	0	1	0	0	1	
5	0	1	1	1	2	
14	0	0	4	2	8	
2	0	1	0	0	1	
2	0	0	0	1	1	
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3	0	0	0	2	1	
9	0	1	1	2	5	
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0	0	0	0	0	0	
1	0	0	1	0	0	
0	0	0	0	0	0	
58	0	4	11	16	27	

Diazepam Present at Death						
Age of Decedent						
Total	<18	18-25	26-34	35-50	>50	
2	0	0	0	1	1	
0	0	0	0	0	0	
1	0	0	0	0	1	
8	0	1	2	2	3	
7	0	0	0	1	6	
18	0	0	1	8	9	
7	0	0	0	2	5	
2	0	0	0	1	1	
14	1	0	2	5	6	
6	0	0	0	3	3	
17	0	1	4	0	12	
9	0	0	0	1	8	
7	0	0	1	1	5	
1	0	0	1	0	0	
16	0	1	1	3	11	
0	0	0	0	0	0	
6	0	0	0	3	3	
3	0	0	1	1	1	
13	0	0	0	4	9	
1	0	0	0	1	0	
5	0	0	0	3	2	
0	0	0	0	0	0	
1	0	1	0	0	0	
2	0	0	0	1	1	
2	0	0	0	0	2	
148	1	4	13	41	89	

Frequency of Occurrence of Opioids January – June 2019



Note: Meperidine and U-47700 individually constituted less than 1 percent of opioid occurrences and are 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 2019

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 Oxycodone		
Total	Cause	Present
14	10	4
10	3	7
4	0	4
36	8	28
31	16	15
72	45	27
13	6	7
8	3	5
27	6	21
16	11	5
44	12	32
31	15	16
40	17	23
10	4	6
56	15	41
4	3	1
33	19	14
36	19	17
20	9	11
11	2	9
26	5	21
4	0	4
5	2	3
6	2	4
7	1	6
564	233	331

Deaths with Oxycodone Only		
Total	Cause	Present
1	1	0
0	0	0
0	0	0
1	0	1
1	0	1
4	4	0
0	0	0
1	0	1
6	0	6
1	0	1
4	0	4
3	0	3
3	0	3
0	0	0
8	2	6
0	0	0
1	0	1
4	2	2
1	0	1
0	0	0
1	0	1
1	0	1
1	0	1
0	0	0
1	0	1
43	9	34

Deaths with Oxycodone in Combination with Other Drugs		
Total	Cause	Present
13	9	4
10	3	7
4	0	4
35	8	27
30	16	14
68	41	27
13	6	7
7	3	4
21	6	15
15	11	4
40	12	28
28	15	13
37	17	20
10	4	6
48	13	35
4	3	1
32	19	13
32	17	15
19	9	10
11	2	9
25	5	20
3	0	3
4	2	2
6	2	4
6	1	5
521	224	297

Oxycodone Deaths by Age January – June 2019

Medical Examiner District and Area of Florida		
District	Area of Florida	Total
1	Pensacola	14
2	Tallahassee	10
3	Live Oak	4
4	Jacksonville	36
5	Leesburg	31
6	St. Petersburg	72
7	Daytona Beach	13
8	Gainesville	8
9	Orlando	27
10	Lakeland	16
11	Miami	44
12	Sarasota	31
13	Tampa	40
14	Panama City	10
15	West Palm Beach	56
16	Florida Keys	4
17	Ft. Lauderdale	33
18	Melbourne	36
19	Ft. Pierce	20
20	Naples	11
21	Ft. Myers	26
22	Port Charlotte	4
23	St. Augustine	5
24	Sanford	6
25	Kissimmee	7
Statewide Totals		564

Oxycodone Caused Death					
Age of Decedent					
Total	< 18	18-25	26-34	35-50	>50
10	0	0	2	3	5
3	0	0	0	0	3
0	0	0	0	0	0
8	0	0	3	5	0
16	0	2	1	6	7
45	0	3	6	15	21
6	0	0	0	2	4
3	0	1	0	2	0
6	0	0	1	2	3
11	0	1	3	2	5
12	1	1	4	5	1
15	0	0	1	6	8
17	0	2	1	5	9
4	0	0	0	2	2
15	0	1	2	5	7
3	0	0	0	1	2
19	0	1	2	7	9
19	0	1	2	7	9
9	0	0	0	3	6
2	0	0	0	0	2
5	0	0	0	1	4
0	0	0	0	0	0
2	0	0	0	2	0
2	0	0	1	0	1
1	0	0	0	0	1
233	1	13	29	81	109

Oxycodone Present at Death					
Age of Decedent					
Total	<18	18-25	26-34	35-50	>50
4	0	0	1	2	1
7	0	0	2	1	4
4	0	1	1	0	2
28	0	1	2	12	13
15	0	0	2	3	10
27	0	1	2	10	14
7	0	0	3	2	2
5	0	0	0	2	3
21	0	0	3	4	14
5	0	0	1	0	4
32	0	2	7	3	20
16	0	0	3	3	10
23	0	0	2	5	16
6	0	0	1	2	3
41	0	2	7	11	21
1	0	0	0	1	0
14	0	0	3	3	8
17	0	2	1	4	10
11	0	1	1	2	7
9	0	0	4	4	1
21	0	0	5	5	11
4	0	0	2	1	1
3	0	0	0	0	3
4	0	0	1	0	3
6	0	0	1	1	4
331	0	10	55	81	185

Hydrocodone Deaths

January – June 2019

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
15	6	9
8	3	5
1	0	1
34	11	23
17	8	9
31	15	16
16	4	12
3	0	3
18	3	15
13	4	9
11	3	8
8	5	3
11	4	7
15	2	13
14	3	11
1	0	1
9	4	5
7	2	5
7	1	6
2	1	1
8	0	8
2	0	2
6	2	4
2	0	2
2	0	2
261	81	180

Deaths with Hydrocodone Only		
Total	Cause	Present
1	0	1
1	0	1
1	0	1
2	0	2
3	1	2
3	0	3
1	0	1
1	0	1
8	0	8
4	1	3
0	0	0
3	0	3
1	0	1
1	0	1
0	0	0
0	0	0
3	0	3
3	0	3
0	0	0
2	0	2
0	0	0
1	0	1
0	0	0
0	0	0
42	2	40

Deaths with Hydrocodone in Combination with Other Drugs		
Total	Cause	Present
14	6	8
7	3	4
0	0	0
32	11	21
14	7	7
28	15	13
15	4	11
2	0	2
10	3	7
9	3	6
11	3	8
5	5	0
10	4	6
14	2	12
14	3	11
1	0	1
6	4	2
4	2	2
4	1	3
2	1	1
6	0	6
2	0	2
5	2	3
2	0	2
2	0	2
219	79	140

Hydrocodone Deaths by Age January – June 2019

Medical Examiner District and Area of Florida		
District	Area of Florida	Total
1	Pensacola	15
2	Tallahassee	8
3	Live Oak	1
4	Jacksonville	34
5	Leesburg	17
6	St. Petersburg	31
7	Daytona Beach	16
8	Gainesville	3
9	Orlando	18
10	Lakeland	13
11	Miami	11
12	Sarasota	8
13	Tampa	11
14	Panama City	15
15	West Palm Beach	14
16	Florida Keys	1
17	Ft. Lauderdale	9
18	Melbourne	7
19	Ft. Pierce	7
20	Naples	2
21	Ft. Myers	8
22	Port Charlotte	2
23	St. Augustine	6
24	Sanford	2
25	Kissimmee	2
Statewide Totals		261

Hydrocodone Caused Death						
Age of Decedent						
Total	< 18	18-25	26-34	35-50	>50	
6	0	0	0	1	5	
3	0	0	0	0	3	
0	0	0	0	0	0	
11	0	1	2	4	4	
8	0	0	0	3	5	
15	0	2	0	2	11	
4	0	0	0	1	3	
0	0	0	0	0	0	
3	0	0	0	3	0	
4	0	0	0	1	3	
3	0	0	0	2	1	
5	0	0	1	1	3	
4	0	1	0	0	3	
2	0	0	0	1	1	
3	0	0	0	2	1	
0	0	0	0	0	0	
4	0	0	0	0	4	
2	0	0	0	0	2	
1	0	0	0	0	1	
1	0	0	0	1	0	
0	0	0	0	0	0	
0	0	0	0	0	0	
2	0	0	1	1	0	
0	0	0	0	0	0	
0	0	0	0	0	0	
81	0	4	4	23	50	

Hydrocodone Present at Death						
Age of Decedent						
Total	<18	18-25	26-34	35-50	>50	
9	0	0	1	3	5	
5	0	0	1	0	4	
1	0	0	0	0	1	
23	0	2	4	7	10	
9	0	0	0	1	8	
16	0	0	0	1	15	
12	1	0	3	0	8	
3	0	0	0	2	1	
15	0	0	0	2	13	
9	0	0	0	3	6	
8	0	2	2	1	3	
3	0	0	0	1	2	
7	0	0	1	1	5	
13	0	0	1	4	8	
11	0	1	4	3	3	
1	0	0	0	0	1	
5	0	1	0	1	3	
5	0	0	0	0	5	
6	0	0	0	1	5	
1	0	0	0	1	0	
8	0	0	0	2	6	
2	0	0	1	0	1	
4	0	0	1	2	1	
2	0	0	0	1	1	
2	0	0	1	0	1	
180	1	6	20	37	116	

Methadone Deaths

January – June 2019

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
10	7	3
1	1	0
1	1	0
26	14	12
5	4	1
19	10	9
5	3	2
1	1	0
6	3	3
5	4	1
7	2	5
14	10	4
16	9	7
6	2	4
8	3	5
1	1	0
7	5	2
8	4	4
6	2	4
3	2	1
3	0	3
2	1	1
3	1	2
2	1	1
2	1	1
167	92	75

Deaths with Methadone Only		
Total	Cause	Present
3	3	0
0	0	0
0	0	0
6	4	2
1	0	1
1	1	0
0	0	0
0	0	0
0	0	0
1	1	0
1	0	1
3	1	2
4	2	2
0	0	0
1	0	1
0	0	0
1	1	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
1	1	0
0	0	0
0	0	0
23	14	9

Deaths with Methadone in Combination with Other Drugs		
Total	Cause	Present
7	4	3
1	1	0
1	1	0
20	10	10
4	4	0
18	9	9
5	3	2
1	1	0
6	3	3
4	3	1
6	2	4
11	9	2
12	7	5
6	2	4
7	3	4
1	1	0
6	4	2
8	4	4
6	2	4
3	2	1
3	0	3
2	1	1
2	0	2
2	1	1
2	1	1
144	78	66

Methadone Deaths by Age January – June 2019

Medical Examiner District and Area of Florida		
District	Area of Florida	Total
1	Pensacola	10
2	Tallahassee	1
3	Live Oak	1
4	Jacksonville	26
5	Leesburg	5
6	St. Petersburg	19
7	Daytona Beach	5
8	Gainesville	1
9	Orlando	6
10	Lakeland	5
11	Miami	7
12	Sarasota	14
13	Tampa	16
14	Panama City	6
15	West Palm Beach	8
16	Florida Keys	1
17	Ft. Lauderdale	7
18	Melbourne	8
19	Ft. Pierce	6
20	Naples	3
21	Ft. Myers	3
22	Port Charlotte	2
23	St. Augustine	3
24	Sanford	2
25	Kissimmee	2
Statewide Totals		167

Methadone Caused Death					
Age of Decedent					
Total	<18	18-25	26-34	35-50	>50
7	1	0	1	4	1
1	0	0	0	0	1
1	0	0	0	1	0
14	0	0	3	8	3
4	0	0	1	2	1
10	0	1	2	4	3
3	0	0	0	3	0
1	0	0	0	1	0
3	0	0	1	1	1
4	0	0	1	2	1
2	0	0	0	2	0
10	0	0	2	5	3
9	0	0	3	5	1
2	0	0	0	1	1
3	0	0	0	1	2
1	0	0	0	0	1
5	0	0	0	1	4
4	0	0	0	4	0
2	0	0	0	1	1
0	0	0	0	0	0
1	0	0	1	0	0
1	1	0	0	0	0
1	0	1	0	0	0
1	0	0	0	1	0
92	2	3	15	48	24

Methadone Present at Death					
Age of Decedent					
Total	<18	18-25	26-34	35-50	>50
3	0	0	1	2	0
0	0	0	0	0	0
0	0	0	0	0	0
12	0	0	1	5	6
1	0	0	0	0	1
9	0	0	0	3	6
2	0	0	0	1	1
0	0	0	0	0	0
3	0	0	1	1	1
1	0	0	0	0	1
5	0	1	1	0	3
4	0	0	0	0	4
7	0	0	0	7	0
4	0	0	0	2	2
5	0	0	0	4	1
0	0	0	0	0	0
2	0	0	0	0	2
4	0	0	1	2	1
4	0	0	0	0	4
1	0	0	0	1	0
3	0	0	1	2	0
1	0	0	1	0	0
2	0	0	1	1	0
1	0	0	0	1	0
1	0	0	0	0	1
75	0	1	8	32	34

Morphine Deaths

January – June 2019

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 Morphine		
Total	Cause	Present
31	23	8
6	0	6
4	1	3
54	36	18
43	20	23
96	65	31
31	11	20
8	1	7
71	33	38
16	4	12
72	38	34
37	15	22
57	35	22
10	2	8
141	65	76
3	2	1
79	52	27
32	18	14
12	1	11
21	14	7
33	19	14
9	1	8
7	3	4
16	12	4
19	15	4
908	486	422

Deaths with Morphine Only		
Total	Cause	Present
3	0	3
0	0	0
0	0	0
1	0	1
4	1	3
5	1	4
0	0	0
1	0	1
10	2	8
1	0	1
3	0	3
2	1	1
5	1	4
0	0	0
5	1	4
0	0	0
3	0	3
8	5	3
0	0	0
0	0	0
0	0	0
1	0	1
1	1	0
1	0	1
2	0	2
56	13	43

Deaths with Morphine in Combination with Other Drugs		
Total	Cause	Present
28	23	5
6	0	6
4	1	3
53	36	17
39	19	20
91	64	27
31	11	20
7	1	6
61	31	30
15	4	11
69	38	31
35	14	21
52	34	18
10	2	8
136	64	72
3	2	1
76	52	24
24	13	11
12	1	11
21	14	7
33	19	14
8	1	7
6	2	4
15	12	3
17	15	2
852	473	379

Morphine Deaths by Age

January – June 2019

Medical Examiner District and Area of Florida		
District	Area of Florida	Total
1	Pensacola	31
2	Tallahassee	6
3	Live Oak	4
4	Jacksonville	54
5	Leesburg	43
6	St. Petersburg	96
7	Daytona Beach	31
8	Gainesville	8
9	Orlando	71
10	Lakeland	16
11	Miami	72
12	Sarasota	37
13	Tampa	57
14	Panama City	10
15	West Palm Beach	141
16	Florida Keys	3
17	Ft. Lauderdale	79
18	Melbourne	32
19	Ft. Pierce	12
20	Naples	21
21	Ft. Myers	33
22	Port Charlotte	9
23	St. Augustine	7
24	Sanford	16
25	Kissimmee	19
Statewide Totals		908

Morphine Caused Death						
Age of Decedent						
Total	<18	18-25	26-34	35-50	>50	
23	0	0	4	14	5	
0	0	0	0	0	0	
1	0	0	0	0	1	
36	0	2	9	18	7	
20	0	0	8	3	9	
65	0	3	14	27	21	
11	0	1	3	3	4	
1	0	0	0	1	0	
33	1	3	6	16	7	
4	0	1	0	1	2	
38	0	3	8	13	14	
15	0	0	1	7	7	
35	0	4	7	16	8	
2	0	0	1	1	0	
65	0	7	21	23	14	
2	0	0	1	1	0	
52	0	4	15	19	14	
18	0	0	3	6	9	
1	0	0	0	0	1	
14	0	0	1	8	5	
19	0	3	2	7	7	
1	0	0	0	1	0	
3	0	0	1	1	1	
12	0	1	2	4	5	
15	0	2	1	6	6	
486	1	34	108	196	147	

Morphine Present at Death						
Age of Decedent						
Total	<18	18-25	26-34	35-50	>50	
8	0	1	0	3	4	
6	0	0	2	0	4	
3	0	0	0	0	3	
18	0	1	1	9	7	
23	0	1	3	9	10	
31	0	2	1	8	20	
20	1	2	7	4	6	
7	0	0	2	1	4	
38	2	1	2	8	25	
12	0	1	1	5	5	
34	0	5	7	6	16	
22	0	1	6	7	8	
22	0	0	2	12	8	
8	0	2	2	1	3	
76	0	5	20	28	23	
1	0	0	1	0	0	
27	0	1	7	13	6	
14	0	1	2	3	8	
11	0	1	2	3	5	
7	0	1	2	4	0	
14	0	0	4	4	6	
8	0	0	2	1	5	
4	0	2	1	1	0	
4	0	1	0	1	2	
4	0	2	1	0	1	
422	3	31	78	131	179	

Fentanyl Deaths

January – June 2019

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
44	42	2
6	2	4
2	1	1
214	184	30
50	42	8
145	139	6
54	44	10
11	7	4
117	92	25
12	10	2
121	102	19
73	64	9
62	57	5
13	9	4
178	155	23
5	4	1
177	170	7
121	109	12
43	31	12
22	21	1
101	90	11
10	9	1
15	10	5
23	20	3
25	19	6
1,644	1,433	211

Deaths with Fentanyl Only		
Total	Cause	Present
6	6	0
1	0	1
0	0	0
10	7	3
5	3	2
12	11	1
2	2	0
3	1	2
6	3	3
2	2	0
3	0	3
8	7	1
7	7	0
0	0	0
4	1	3
1	1	0
15	14	1
8	6	2
5	1	4
1	1	0
14	12	2
0	0	0
1	0	1
1	0	1
4	2	2
119	87	32

Deaths with Fentanyl in Combination with Other Drugs		
Total	Cause	Present
38	36	2
5	2	3
2	1	1
204	177	27
45	39	6
133	128	5
52	42	10
8	6	2
111	89	22
10	8	2
118	102	16
65	57	8
55	50	5
13	9	4
174	154	20
4	3	1
162	156	6
113	103	10
38	30	8
21	20	1
87	78	9
10	9	1
14	10	4
22	20	2
21	17	4
1,525	1,346	179

Fentanyl Deaths by Age

January – June 2019

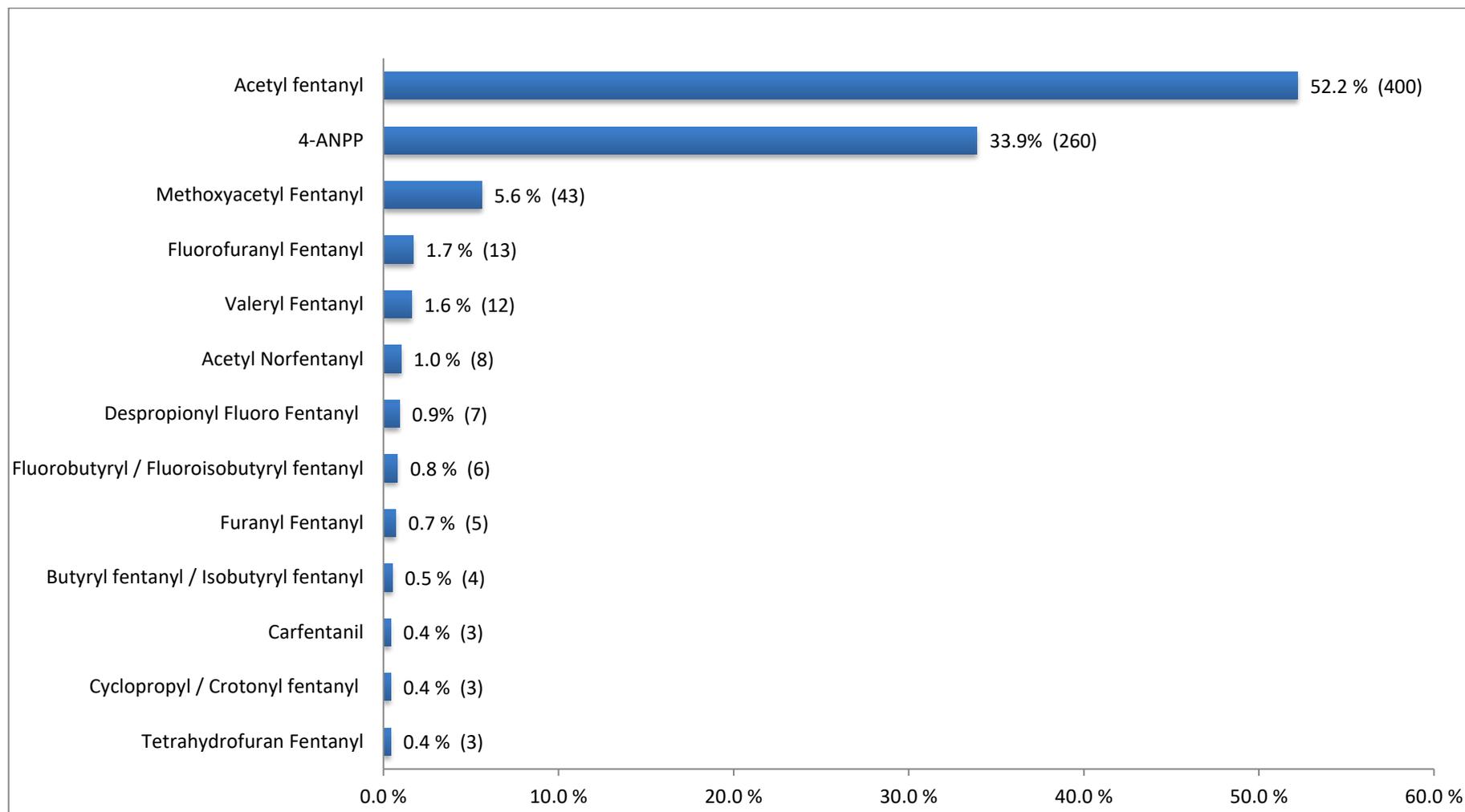
Medical Examiner District and Area of Florida		
District	Area of Florida	Total
1	Pensacola	44
2	Tallahassee	6
3	Live Oak	2
4	Jacksonville	214
5	Leesburg	50
6	St. Petersburg	145
7	Daytona Beach	54
8	Gainesville	11
9	Orlando	117
10	Lakeland	12
11	Miami	121
12	Sarasota	73
13	Tampa	62
14	Panama City	13
15	West Palm Beach	178
16	Florida Keys	5
17	Ft. Lauderdale	177
18	Melbourne	121
19	Ft. Pierce	43
20	Naples	22
21	Ft. Myers	101
22	Port Charlotte	10
23	St. Augustine	15
24	Sanford	23
25	Kissimmee	25
Statewide Totals		1,644

Fentanyl Caused Death						
Age of Decedent						
Total	<18	18-25	26-34	35-50	>50	
42	0	1	8	26	7	
2	0	0	1	0	1	
1	0	0	0	1	0	
184	0	10	46	91	37	
42	0	2	13	19	8	
139	0	10	38	55	36	
44	0	5	13	17	9	
7	0	0	2	3	2	
92	1	9	16	42	24	
10	0	1	3	3	3	
102	0	10	23	41	28	
64	1	6	10	32	15	
57	0	4	18	27	8	
9	0	0	1	5	3	
155	1	23	52	55	24	
4	0	0	3	1	0	
170	0	16	43	73	38	
109	1	5	28	47	28	
31	0	4	11	9	7	
21	0	1	9	10	1	
90	0	7	25	40	18	
9	0	0	5	4	0	
10	0	3	3	3	1	
20	0	0	7	8	5	
19	0	4	1	6	8	
1,433	4	121	379	618	311	

Fentanyl Present at Death						
Age of Decedent						
Total	<18	18-25	26-34	35-50	>50	
2	0	1	0	1	0	
4	0	1	1	0	2	
1	0	0	0	1	0	
30	1	2	5	9	13	
8	0	0	3	0	5	
6	0	0	0	2	4	
10	1	1	2	2	4	
4	0	0	1	0	3	
25	1	0	6	11	7	
2	0	0	0	1	1	
19	1	1	3	3	11	
9	0	0	4	5	0	
5	0	0	0	2	3	
4	0	0	2	1	1	
23	0	3	5	7	8	
1	0	0	0	1	0	
7	0	1	1	2	3	
12	1	1	2	3	5	
12	0	1	0	5	6	
1	0	0	0	1	0	
11	0	1	3	3	4	
1	0	0	0	0	1	
5	0	0	2	0	3	
3	0	1	0	1	1	
6	1	0	1	0	4	
211	6	14	41	61	89	

Frequency of Occurrence of Fentanyl Analogs

January – June 2019



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 by Age

January – June 2019

Medical Examiner District and Area of Florida			Fentanyl Analogs Caused Death						Fentanyl Analogs Present at Death					
District	Area of Florida	Total	Age of Decedent						Age of Decedent					
			Total	<18	18-25	26-34	35-50	>50	Total	<18	18-25	26-34	35-50	>50
1	Pensacola	5	5	0	0	0	4	1	0	0	0	0	0	0
2	Tallahassee	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Live Oak	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Jacksonville	107	92	0	3	21	47	21	15	0	3	3	6	3
5	Leesburg	13	13	0	0	3	8	2	0	0	0	0	0	0
6	St. Petersburg	41	38	0	1	9	19	9	3	0	0	1	2	0
7	Daytona Beach	23	22	0	2	8	6	6	1	0	0	0	1	0
8	Gainesville	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Orlando	36	16	1	2	4	6	3	20	0	1	4	10	5
10	Lakeland	2	1	0	0	0	0	1	1	0	0	0	0	1
11	Miami	64	51	0	4	10	24	13	13	0	1	4	3	5
12	Sarasota	13	4	1	1	0	1	1	9	0	2	1	6	0
13	Tampa	2	2	0	1	0	1	0	0	0	0	0	0	0
14	Panama City	6	6	0	0	1	5	0	0	0	0	0	0	0
15	West Palm Beach	142	131	0	19	46	48	18	11	0	1	8	2	0
16	Florida Keys	2	0	0	0	0	0	0	2	0	0	0	2	0
17	Ft. Lauderdale	30	29	0	5	8	9	7	1	0	0	1	0	0
18	Melbourne	30	24	0	2	6	8	8	6	0	0	2	3	1
19	Ft. Pierce	18	10	0	2	2	2	4	8	0	2	2	3	1
20	Naples	11	10	0	1	4	5	0	1	0	0	0	1	0
21	Ft. Myers	27	18	0	2	3	11	2	9	0	0	5	2	2
22	Port Charlotte	0	0	0	0	0	0	0	0	0	0	0	0	0
23	St. Augustine	4	4	0	1	0	2	1	0	0	0	0	0	0
24	Sanford	2	2	0	0	1	1	0	0	0	0	0	0	0
25	Kissimmee	7	4	0	1	0	1	2	3	0	1	0	0	2
Statewide Totals		585	482	2	47	126	208	99	103	0	11	31	41	20

Heroin Deaths by Age January – June 2019

Medical Examiner District and Area of Florida		
District	Area of Florida	Total
1	Pensacola	12
2	Tallahassee	1
3	Live Oak	0
4	Jacksonville	27
5	Leesburg	29
6	St. Petersburg	37
7	Daytona Beach	21
8	Gainesville	2
9	Orlando	25
10	Lakeland	5
11	Miami	31
12	Sarasota	14
13	Tampa	26
14	Panama City	5
15	West Palm Beach	111
16	Florida Keys	0
17	Ft. Lauderdale	73
18	Melbourne	1
19	Ft. Pierce	1
20	Naples	9
21	Ft. Myers	14
22	Port Charlotte	2
23	St. Augustine	5
24	Sanford	14
25	Kissimmee	10
Statewide Totals		475

Heroin Caused Death					
Age of Decedent					
Total	<18	18-25	26-34	35-50	>50
12	0	0	3	8	1
0	0	0	0	0	0
0	0	0	0	0	0
25	0	0	5	18	2
29	0	2	13	9	5
35	0	4	9	12	10
20	0	2	7	8	3
2	0	1	0	1	0
24	0	3	6	12	3
5	0	1	0	4	0
28	0	3	5	9	11
14	0	1	5	6	2
25	0	1	6	14	4
5	0	1	2	1	1
56	0	7	21	21	7
0	0	0	0	0	0
66	0	8	15	29	14
0	0	0	0	0	0
0	0	0	0	0	0
9	0	0	1	6	2
14	0	3	2	5	4
2	0	0	0	2	0
5	0	2	1	1	1
14	0	1	1	7	5
10	0	2	0	4	4
400	0	42	102	177	79

Heroin Present at Death					
Age of Decedent					
Total	<18	18-25	26-34	35-50	>50
0	0	0	0	0	0
1	0	0	1	0	0
0	0	0	0	0	0
2	0	1	0	1	0
0	0	0	0	0	0
2	0	0	0	1	1
1	0	0	1	0	0
0	0	0	0	0	0
1	0	0	0	1	0
0	0	0	0	0	0
3	0	1	0	1	1
0	0	0	0	0	0
1	0	0	1	0	0
0	0	0	0	0	0
55	0	5	20	20	10
0	0	0	0	0	0
7	0	0	5	1	1
1	0	0	1	0	0
1	0	0	0	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
0	0	0	0	0	0
75	0	7	29	26	13

Cocaine Deaths

January – June 2019

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
29	20	9
9	6	3
3	0	3
149	85	64
35	25	10
129	83	46
39	20	19
24	15	9
122	74	48
20	15	5
197	122	75
54	26	28
63	30	33
16	9	7
160	62	98
9	7	2
127	102	25
63	41	22
37	17	20
21	14	7
50	21	29
6	5	1
10	3	7
25	14	11
21	19	2
1,418	835	583

Deaths with Cocaine Only		
Total	Cause	Present
8	7	1
3	3	0
0	0	0
12	4	8
4	1	3
16	11	5
9	3	6
2	1	1
26	13	13
5	4	1
27	14	13
1	0	1
17	8	9
3	2	1
21	6	15
1	1	0
12	9	3
4	3	1
5	2	3
3	3	0
5	1	4
0	0	0
2	0	2
2	1	1
4	4	0
192	101	91

Deaths with Cocaine in Combination with Other Drugs		
Total	Cause	Present
21	13	8
6	3	3
3	0	3
137	81	56
31	24	7
113	72	41
30	17	13
22	14	8
96	61	35
15	11	4
170	108	62
53	26	27
46	22	24
13	7	6
139	56	83
8	6	2
115	93	22
59	38	21
32	15	17
18	11	7
45	20	25
6	5	1
8	3	5
23	13	10
17	15	2
1,226	734	492

Cocaine Deaths by Age

January – June 2019

Medical Examiner District and Area of Florida		
District	Area of Florida	Total
1	Pensacola	29
2	Tallahassee	9
3	Live Oak	3
4	Jacksonville	149
5	Leesburg	35
6	St. Petersburg	129
7	Daytona Beach	39
8	Gainesville	24
9	Orlando	122
10	Lakeland	20
11	Miami	197
12	Sarasota	54
13	Tampa	63
14	Panama City	16
15	West Palm Beach	160
16	Florida Keys	9
17	Ft. Lauderdale	127
18	Melbourne	63
19	Ft. Pierce	37
20	Naples	21
21	Ft. Myers	50
22	Port Charlotte	6
23	St. Augustine	10
24	Sanford	25
25	Kissimmee	21
Statewide Totals		1,418

Cocaine Caused Death						
Age of Decedent						
Total	<18	18-25	26-34	35-50	>50	
20	0	2	3	7	8	
6	0	0	1	1	4	
0	0	0	0	0	0	
85	0	5	17	41	22	
25	0	1	6	7	11	
83	0	4	14	34	31	
20	0	0	3	9	8	
15	0	1	1	8	5	
74	0	5	11	32	26	
15	0	0	3	5	7	
122	0	6	24	48	44	
26	0	0	4	15	7	
30	0	3	3	10	14	
9	0	0	1	4	4	
62	0	9	18	23	12	
7	0	0	2	3	2	
102	0	8	20	43	31	
41	1	1	8	11	20	
17	0	0	4	8	5	
14	1	0	1	8	4	
21	0	1	8	7	5	
5	0	0	4	1	0	
3	0	0	0	3	0	
14	0	1	2	6	5	
19	0	5	0	8	6	
835	2	52	158	342	281	

Cocaine Present at Death						
Age of Decedent						
Total	<18	18-25	26-34	35-50	>50	
9	0	2	2	3	2	
3	0	1	1	0	1	
3	0	0	1	0	2	
64	0	6	12	29	17	
10	0	1	2	4	3	
46	0	4	5	22	15	
19	0	1	3	7	8	
9	0	1	1	1	6	
48	1	6	10	19	12	
5	0	2	1	1	1	
75	1	7	17	20	30	
28	0	4	9	9	6	
33	0	2	9	8	14	
7	0	0	3	2	2	
98	0	6	30	39	23	
2	0	0	0	1	1	
25	1	1	9	7	7	
22	0	1	9	7	5	
20	0	3	6	6	5	
7	0	2	2	2	1	
29	0	1	9	12	7	
1	0	0	1	0	0	
7	0	1	3	2	1	
11	1	0	2	6	2	
2	0	1	0	1	0	
583	4	53	147	208	171	

Methamphetamine Deaths

January – June 2019

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 Methamphetamine		
Total	Cause	Present
63	45	18
18	4	14
8	3	5
89	35	54
49	41	8
72	52	20
21	14	7
6	3	3
36	22	14
38	31	7
19	9	10
28	23	5
25	14	11
26	15	11
15	7	8
0	0	0
21	14	7
33	24	9
10	2	8
8	5	3
27	18	9
10	8	2
7	4	3
9	9	0
7	4	3
645	406	239

Deaths with Methamphetamine Only		
Total	Cause	Present
0	0	0
2	0	2
1	1	0
0	0	0
2	2	0
4	1	3
0	0	0
1	1	0
2	1	1
2	2	0
0	0	0
2	2	0
3	1	2
2	1	1
0	0	0
0	0	0
2	1	1
1	0	1
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
1	0	1
27	14	13

Deaths with Methamphetamine in Combination with Other Drugs		
Total	Cause	Present
63	45	18
16	4	12
7	2	5
89	35	54
47	39	8
68	51	17
21	14	7
5	2	3
34	21	13
36	29	7
19	9	10
26	21	5
22	13	9
24	14	10
15	7	8
0	0	0
19	13	6
31	23	8
9	2	7
8	5	3
27	18	9
10	8	2
7	4	3
9	9	0
6	4	2
618	392	226

Methamphetamine Deaths by Age

January – June 2019

Medical Examiner District and Area of Florida		
District	Area of Florida	Total
1	Pensacola	63
2	Tallahassee	18
3	Live Oak	8
4	Jacksonville	89
5	Leesburg	49
6	St. Petersburg	72
7	Daytona Beach	21
8	Gainesville	6
9	Orlando	36
10	Lakeland	38
11	Miami	19
12	Sarasota	28
13	Tampa	25
14	Panama City	26
15	West Palm Beach	15
16	Florida Keys	0
17	Ft. Lauderdale	21
18	Melbourne	33
19	Ft. Pierce	10
20	Naples	8
21	Ft. Myers	27
22	Port Charlotte	10
23	St. Augustine	7
24	Sanford	9
25	Kissimmee	7
Statewide Totals		645

Methamphetamine Caused Death						
Age of Decedent						
Total	<18	18-25	26-34	35-50	>50	
45	0	1	4	29	11	
4	0	0	1	2	1	
3	0	0	2	1	0	
35	0	2	7	17	9	
41	0	2	10	18	11	
52	0	2	10	22	18	
14	0	0	2	7	5	
3	0	1	0	1	1	
22	0	3	3	10	6	
31	0	1	6	11	13	
9	0	1	1	2	5	
23	0	1	5	14	3	
14	0	0	4	7	3	
15	0	2	1	6	6	
7	0	2	1	4	0	
0	0	0	0	0	0	
14	1	3	2	7	1	
24	0	1	8	12	3	
2	0	0	0	2	0	
5	0	0	2	3	0	
18	0	1	7	4	6	
8	0	0	4	3	1	
4	0	1	0	2	1	
9	0	0	2	6	1	
4	0	1	0	2	1	
406	1	25	82	192	106	

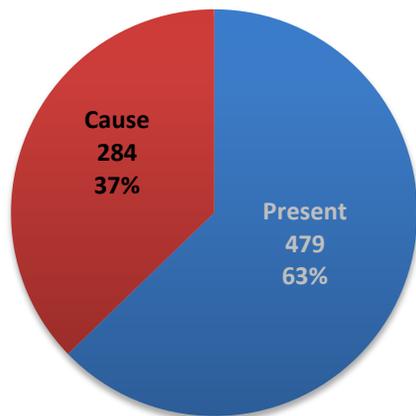
Methamphetamine Present at Death						
Age of Decedent						
Total	<18	18-25	26-34	35-50	>50	
18	1	3	6	4	4	
14	0	2	5	6	1	
5	0	0	2	2	1	
54	0	7	17	23	7	
8	0	0	5	3	0	
20	0	0	5	10	5	
7	0	0	5	2	0	
3	0	0	2	1	0	
14	1	2	2	6	3	
7	0	1	2	4	0	
10	1	1	5	2	1	
5	0	0	2	3	0	
11	0	2	5	2	2	
11	0	0	0	9	2	
8	0	1	2	4	1	
0	0	0	0	0	0	
7	1	0	2	3	1	
9	0	1	4	3	1	
8	0	2	2	4	0	
3	0	0	1	2	0	
9	0	0	7	2	0	
2	0	0	2	0	0	
3	0	0	0	2	1	
0	0	0	0	0	0	
3	0	0	1	0	2	
239	4	22	84	97	32	

Drug Detected at Death: Cause vs. Present

January – June 2019

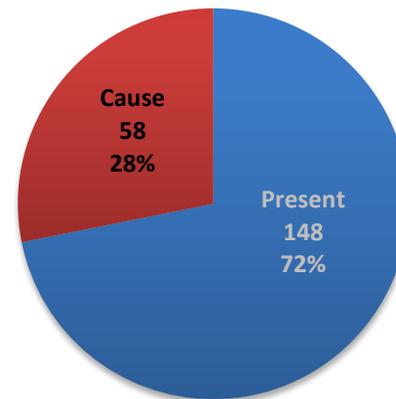
Alprazolam Deaths

Total Occurrences = 763



Diazepam Deaths

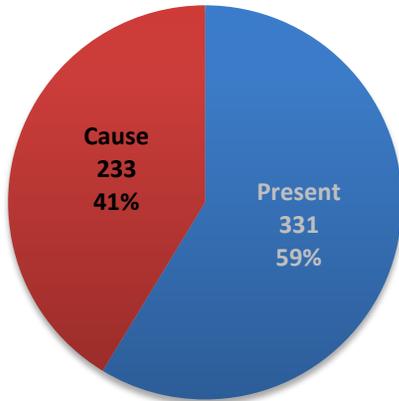
Total Occurrences = 206



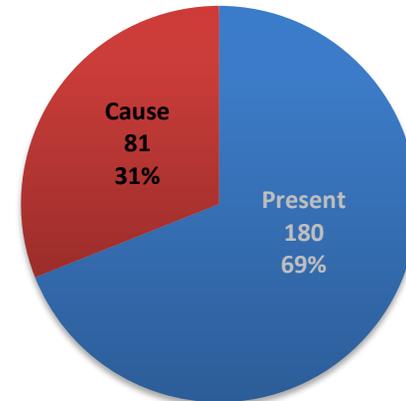
Drug Detected at Death: Cause vs. Present

January – June 2019

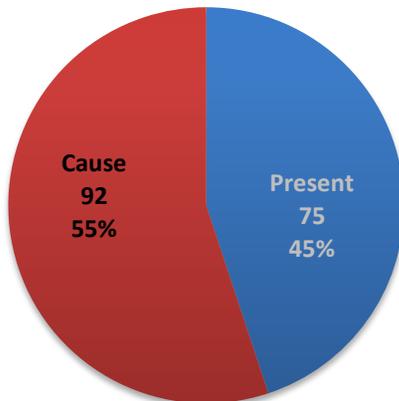
Oxycodone Deaths Total Occurrences = 564



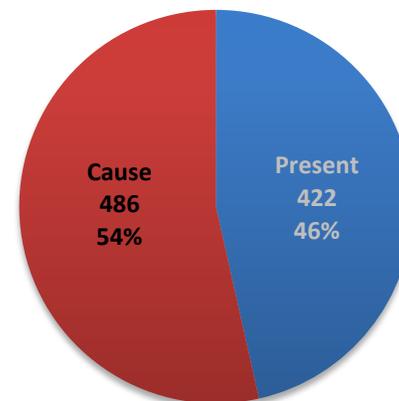
Hydrocodone Deaths Total Occurrences = 261



Methadone Deaths Total Occurrences = 167



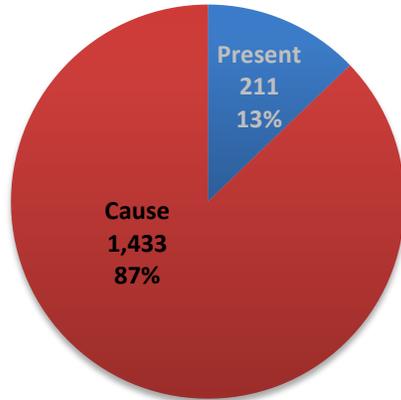
Morphine Deaths Total Occurrences = 908



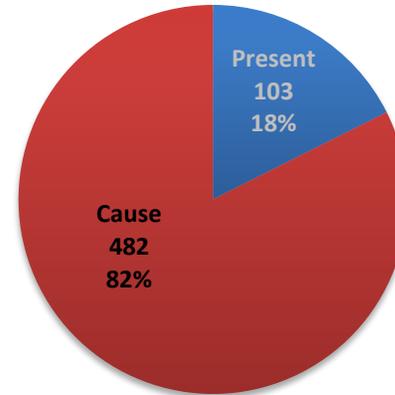
Drug Detected at Death: Cause vs. Present

January – June 2019

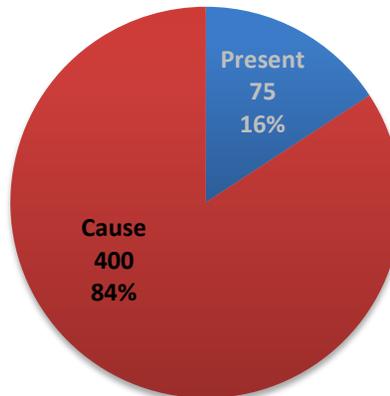
Fentanyl Deaths Total Occurrences = 1,644



Fentanyl Analogs Deaths Total Occurrences = 585

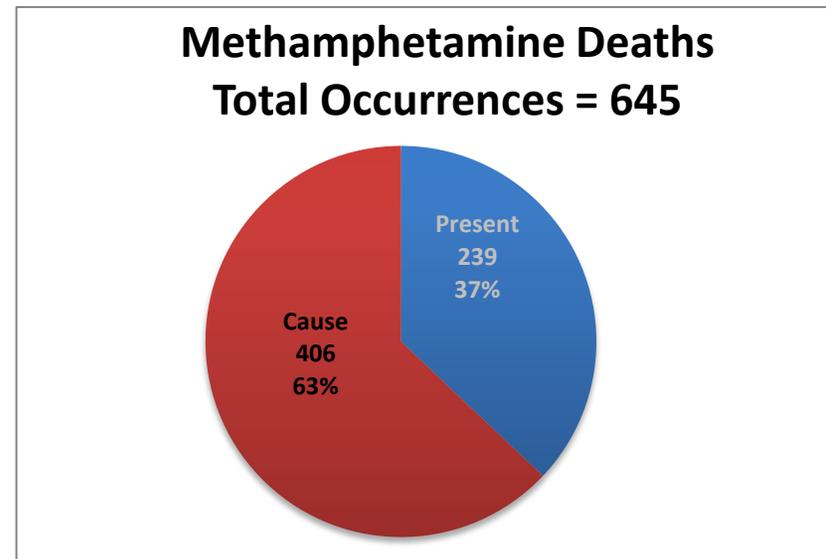
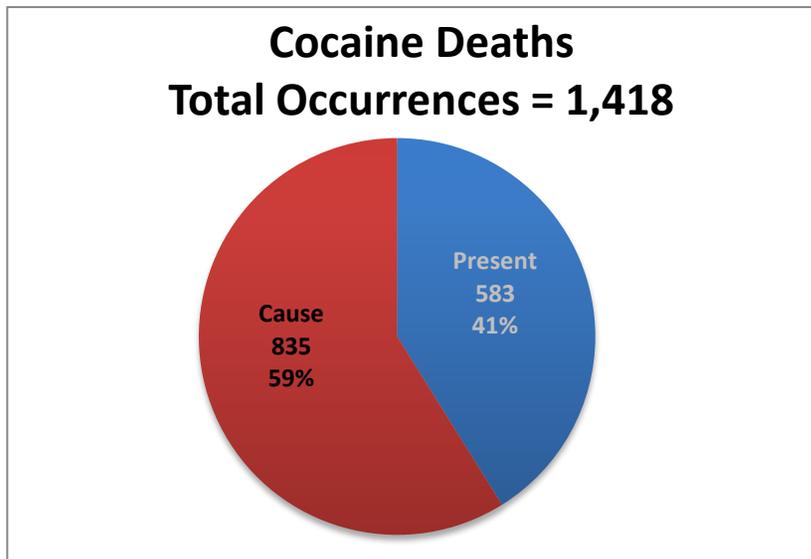


Heroin Deaths Total Occurrences = 475



Drug Detected at Death: Cause vs. Present

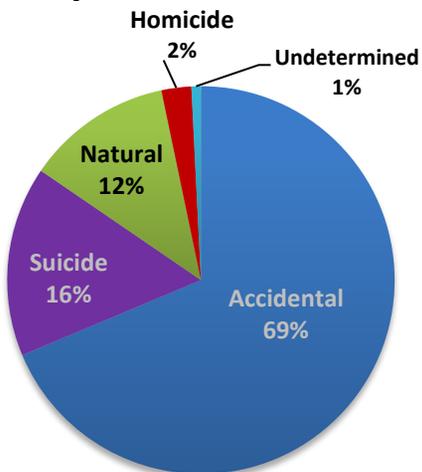
January – June 2019



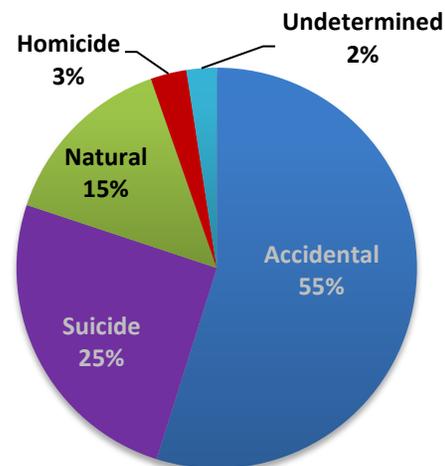
Manner of Death for Reported Drug Occurrences

January – June 2019

Alprazolam Deaths



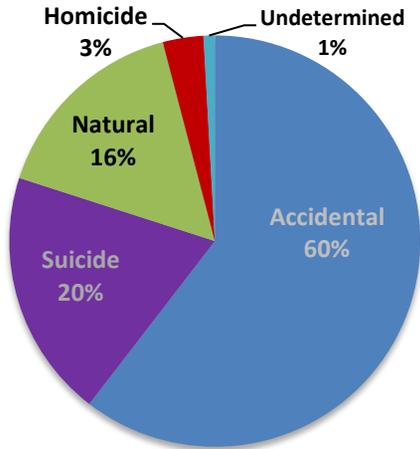
Diazepam Deaths



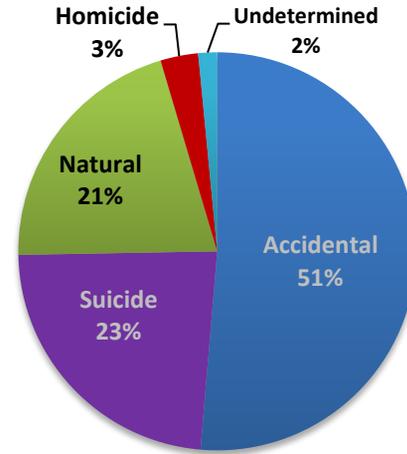
Manner of Death for Reported Drug Occurrences

January – June 2019

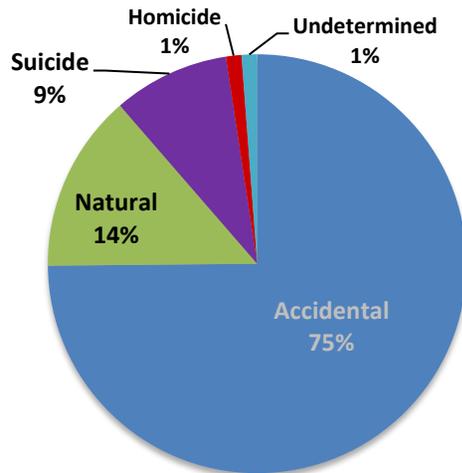
Oxycodone Deaths



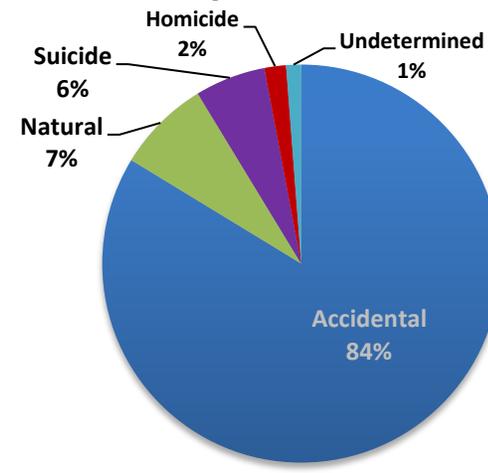
Hydrocodone Deaths



Methadone Deaths

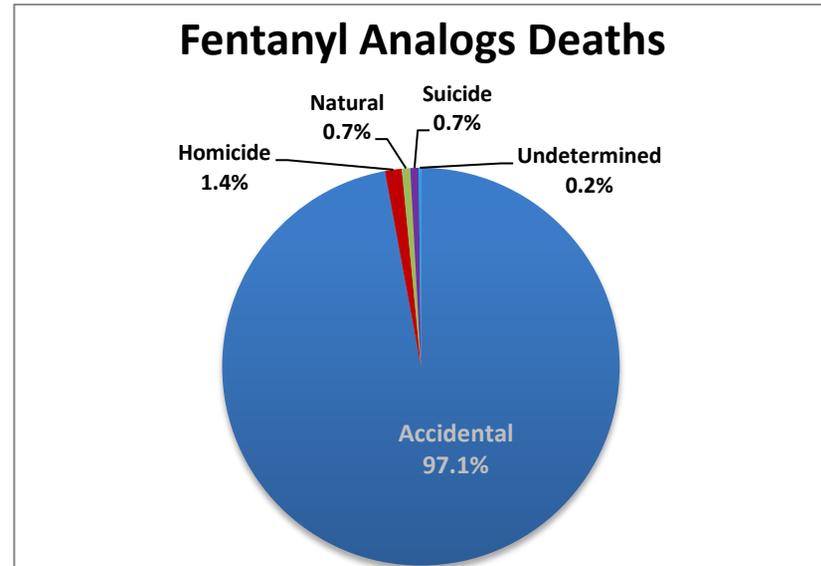
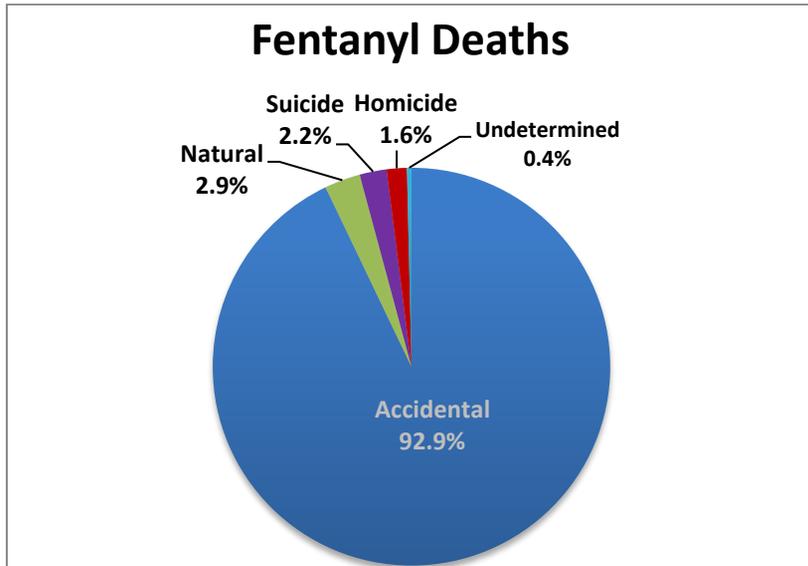


Morphine Deaths



Manner of Death for Reported Drug Occurrences

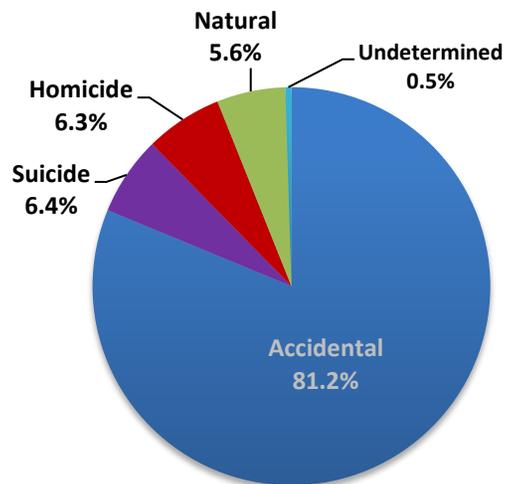
January - June 2019



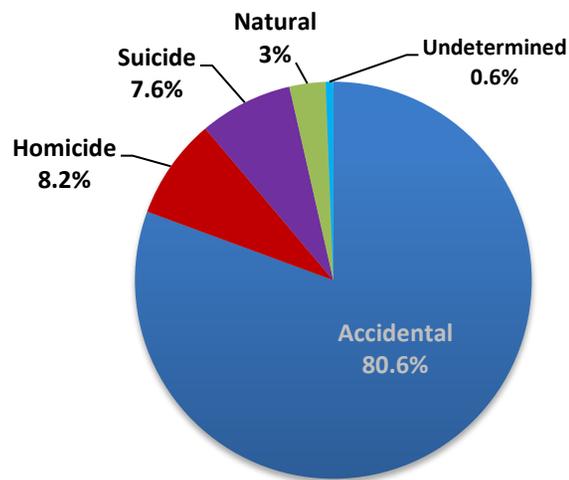
Manner of Death for Reported Drug Occurrences

January – June 2019

Cocaine Deaths



Methamphetamine Deaths



Analytes

Below are specific analytes that were identified in the decedents:

Cathinones

Etylone
Butylone
N-Ethylpentylone
N-butyl pentylone
Ethylone

Synthetic Cannabinoids

MMB2201
FUB-AMB
5F-MDMB-PICA
5-fluoro-MDMB-PINACA
5-fluoro-PICA 3,3-dimethylbutanoic acid
FUBIC-ACID
4F-MDMB-BINACA-C
5-fluoro-ADB
5-fluoro-PIC-ACID
5F-ADB-BUTANOIC ACID
FUBINACA 3,3-dimethylbutanoic acid

Phenethylamines/Piperazines

3,4-Methylenedioxyamphetamine (MDA)
3,4-Methylenedioxymethamphetamine (MDMA)

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.

Mitragynine – An alkaloid found in the Kratom plant, which is consumed for its stimulant and analgesic (opioid-like) effects. The leaves of the Kratom plant, either whole or crushed, are smoked, chewed or prepared as a tea. In addition, plant extract containing mitragynine is available in tablets and capsules.

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."

Glossary (Continued)

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.

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.