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UNIVERSITY OF CENTRAL FLORIDA

Unintentional Fatal Overdoses and Prior Incarceration

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Overview

This report shares analysis of unintentional fatal overdose victims from 2018-2022 in Orange County, Florida who had been incarcerated in the Orange County Jail at least once in the 365 days prior to their death. Specifically, this report examines the number of times the victim had been incarcerated in their lifetime in the jail and if they had flags in their files for mental health, persistent mental health, substance abuse, and/or detoxification. Data for this analysis were provided by Orange County Corrections and the Orange County Medical Examiner.

Findings

Table 1 below provides the percentage of overdose victims that were incarcerated within 365 days prior to their overdose death in each calendar year from 2018-2022.

Table 1. Percentage of Victims Incarcerated in the 365 Days Prior to Their Death

	2018	2019	2020	2021	2022	Total
Orange County Residents Incarcerated	65	63	65	80	48	321
Orange County Residents Overdose Deaths	250	263	323	385	274	1,495
Percent Orange County Residents Incarcerated	26.0%	24.0%	20.1%	20.8%	17.5%	21.5%
Modified Orange County Residents Incarcerated	83	74	80	95	73	405
Modified Orange County Residents Overdose Deaths	268	274	338	401	300	1,581
Percent Modified Orange County Residents Incarcerated	31.0%	27.0%	23.7%	23.7%	24.3%	25.6%
All Incarcerated	96	92	98	107	87	480
All Overdose Deaths	346	366	448	536	399	2,095
Percent Incarcerated	27.7%	25.1%	21.9%	20.0%	21.8%	22.9%

Notes: Incarcerated includes anyone released from Orange County Jail within the previous 365 days from their death date, To be incarcerated, jail records must match first name, last name, and birth date, Modified Orange County Residents uses addresses found from jail records that were not originally included in the Medical Examiner data files. Table provided by Research Statistician, Orange County Corrections.

During the five-year period, 2,095 total overdose deaths were documented, where 22.9% of those individuals had been incarcerated in the year preceding their death. The highest percentage of overall incarcerated individuals who died of an overdose can be seen in 2018, where 27.7% of all overdose victims that year had been incarcerated in the previous 365 days. The year with the smallest percentage of total overdose death victims who had been incarcerated was in 2021, where 20% of overdose victims in that year had been incarcerated in the previous 365 days.

Across the five-year period, an average of 21.5% of Orange County residents who died of an overdose were incarcerated in the previous 365 days. The year with the highest percentage of previously incarcerated overdose victims of Orange County residents was 2018, where 26% of Orange County residents who died that year were previously incarcerated, gradually going down in 2019 and 2020, with a very slight increase in 2021, and another drop in 2022, which saw the lowest percentage of Orange County residents who were victims of overdose and incarcerated at 17.5%.

Oftentimes address information is missing from the data files received from the Medical Examiner's Office. Orange County Corrections compared these data files with their own files and added in address information when a person's first and last names and birthdates matched resulting in an increase in the percentage of Orange County residents. When looking at the Modified Orange County resident figures, the percentage of residents who were previously incarcerated and died of a fatal overdose increased from the initial numbers of Orange County residents. Across the five-year period, an average of 25.6% of Modified Orange County residents who died of a fatal overdose and had been previously incarcerated. The Modified Orange County residents saw a similar trend, with 2018 as the year for the highest percentage of victims who were previously incarcerated at 31%. However, the years with the lowest percentage of previously incarcerated victims were 2020 and 2021, with a slight increase in 2022.

Number of Times Incarcerated

Next, we determined the total number of times that unintentional fatal overdose victims were incarcerated in the Orange County jail throughout their life (Table 2). The number of times incarcerated prior to death ranged from 1-193 instances. Less than 10% of victims had been incarcerated 25 or more times. These data was re-coded and condensed into a range of 1 to 25+ to facilitate meaningful analysis.

Table 2. Number of Times Incarcerated (N=480)

Number of Times Incarcerated	Frequency	Percent
1	43	9%
2	50	10.4%
3	34	7.1%
4	33	6.9%
5	30	6.3%
6	26	5.4%
7	21	4.4%
8	22	4.6%
9	30	6.3%
10	17	3.5%
11	9	1.9%
12	20	4.2%
13	10	2.1%
14	9	1.9%
15	12	2.5%
16	13	2.7%
17	17	3.5%
18	8	1.7%
19	3	0.6%
20	10	2.1%
21	10	2.1%
22	4	0.8%
23	8	1.7%
24	4	0.8%
25+	37	7.7%
Total	480	100%

Nearly 20% of unintentional fatal overdoses victims were incarcerated only 1-2 times prior to their death; 7.7% of victims had been incarcerated 25 times or more throughout their life.

Mental Health and Substance Use Related Flags

The data provided by Orange County Corrections included information on four flags that individuals can have added to their files while incarcerated. Table 3 displays the frequencies for these variables, which include Mental Health Flag, Persistent Mental Health Flag, Substance Abuse Flag, and Detox Bottom Bunk Flag.

According to Orange County Corrections, the Mental Health (MH) flag is defined in 6.3(3) Do Not House Alone (DNHA). The Persistent MH flag and Substance Abuse flag are defined in 6.3(6) Mental Health Grading. Persistent mental health is 1 or 2 under Chronicity of Illness and substance abuse is 1 or 2 under Level of Addictions. The Detox BB (Detox Bottom Bunk) flag is defined in 6.4(4) Detox Housing.

Table 3. Frequencies of Variables (N=480)

	Frequency	Percentage
MH Flag	257	53.5%
Persistent MH Flag	199	41.5%
Substance Abuse Flag	297	61.9%
Detox BB Flag	62	12.9%

Over 60% (61.9%) of all individuals who had been incarcerated in the year prior to their death had been flagged for substance abuse, while only 12.9% of them had been flagged for detox BB flag. Slightly over half (53.5%) had been flagged for mental health, while 41.5% had been flagged for persistent mental health.

Substances Leading to Fatal Overdoses

ISBS reviews every case in the Medical Examiner files and assigns a code based on the substances that were identified as causing the death. The coding system that is used is:

- 1 Fentanyl only
- 2 Non-fentanyl opioid
- 3 Non-Opioid Substance
- 4 Polysubstance: Fentanyl-related
- 5 Polysubstance: Non-Fentanyl Opioid
- 6 Polysubstance: Non-Opioid

The first three categories are used when a single substance caused the death. Categories 4-6 are used when more than one substance caused the death. Non-opioid substances include any non-opioid substance including cocaine, methamphetamines, and alcohol, among others.

Table 4 shows the frequencies of the six different drug categories overdose among unintentional fatal overdose victims who had been incarcerated in the Orange County jail at least once in the 365 days prior to their death.

Among individuals who were incarcerated in the year prior to their death, polysubstance use that was fentanyl-involved accounted for the majority of deaths (61.4%). Fentanyl with no other substances present was the next most prevalent drug category among this population, accounting for 19.3% of victims. Thus, 80.4% of all deaths among previously incarcerated individuals was fentanyl-related, whether through sole fentanyl use or through polysubstance use with fentanyl.

In a previous report (McClarty and Donley 2023), we analyzed annual trends in drug types across the same 5-year period, using the same data that was provided by the Orange County Medical Examiner. Consistent with our previous findings across all overdose deaths in Orange County, Florida, in this same timeframe, polysubstance use that was fentanyl-involved remains as the most prevalent drug category associated with overdose deaths in this region, both among victims who had been previously incarcerated (N=477) and among all overdose deaths (N=2,161).

Table 4. Substances Leading to Fatal Overdoses (N=477)

	Frequency	Percentage
Fentanyl	92	19.3%
Non-Fentanyl Opioid	3	0.6%
Non-Opioid Substance	59	12.4%
Polysubstance: Fentanyl-related	293	61.4%
Polysubstance: Non-Fentanyl Opioid	15	3.1%
Polysubstance: Non-Opioid	15	3.1%
Total	477	100%

Note: 3 cases were excluded from this analysis as the substances were unidentified.

Fentanyl-involved polysubstance use was more prevalent amongst the population of victims who were previously incarcerated (61.4%) compared to the overall population of overdose victims, where the percentage of deaths associated with this drug category varied from 47.4%-56.2% of the total amount of overdoses in Orange County across the five-year time frame. Overall, the drug types associated with deaths among those who were previously incarcerated were relatively consistent with the trends of all overdose deaths in the county from 2018-2022.

Substances and Flags

Next, the four flags (MH Flag, Persistent MH Flag, Substance Abuse Flag, Detox BB Flag) were crosstabulated with drug type (Table 5). Only the output for individuals coded as “yes” for each flag are shown.

Table 5. Cross Tabulation of Drug Type x Flags (N=477)

	MH Flag	Persistent MH Flag	Substance Abuse Flag	Detox BB Flag
Fentanyl	15.4 (39)	14.2 (28)	15.6 (46)	13.1 (8)
Non-Fentanyl Opioid	0.8 (2)	0.5 (1)	0.3 (1)	0 (0)
Other	10.6 (27)	9.6 (19)	9.2 (27)	11.5 (7)
Polysubstance: Fentanyl-related	65.7 (167)	68.5 (135)	67.7 (199)	68.9 (42)
Polysubstance: Opioid-related	3.5 (9)	3.0 (6)	3.1 (9)	3.3 (2)
Polysubstance: Other	3.9 (10)	4.1 (8)	4.1 (12)	2 (3.3)
Total	100 (254)	100 (197)	100 (294)	100 (61)

Notes: % (N), missing cases excluded.

Polysubstance use that was fentanyl-involved was the most prevalent drug category among all flags, with 65-69% of individuals with each flag ultimately dying of a fentanyl-involved, polysubstance overdose.

Orange County Corrections Health Services compiled data on the victims to determine if the Clinical Opiate Withdrawal Scale (COWS) was administered (Table 6). The percentage of incarcerated individuals who had a COWS administered was relatively consistent across the five-year period, however the smallest percentage of administration was in 2022.

Table 6. COWS Administered by Year

	2018	2019	2020	2021	2022	Total
No	60.4 (58)	60.9 (56)	60.2 (59)	63.6 (68)	69.0 (60)	62.7 (301)
Yes	39.6 (38)	39.1 (36)	39.8 (39)	36.4 (39)	31.0 (27)	37.3 (179)
Total	100 (96)	100 (92)	100 (98)	100 (107)	100 (87)	100 (480)

Notes: % (N).

The COWS scores ranged from 0-12 (Table 7). Overall the modal score was always under 5. The modal scores were highest in 2020 and 2021 and lowest in 2019 and 2022. Across the five year period, the modal score on the COWS was a 4.

Table 7. COWS Administered by Year

	2018	2019	2020	2021	2022	Total
0	5.3 (2)	8.3 (3)	2.6 (1)	10.3 (4)	3.7 (1)	2.3 (11)
1	2.6 (1)	33.3 (12)	10.3 (4)	12.8 (5)	25.9 (7)	6.0 (29)
2	31.6 (12)	13.9 (5)	10.3 (4)	20.5 (8)	25.9 (7)	20.1 (36)
3	13.2 (5)	22.2 (8)	25.6 (10)	25.6 (10)	14.8 (4)	20.7 (37)
4	18.4 (7)	16.7 (6)	28.2 (11)	25.6 (10)	14.8 (4)	21.2 (38)
5	18.4 (7)	5.6 (2)	7.7 (3)	0.0 (0)	3.7 (1)	7.3 (13)
6	0.0 (0)	0.0 (0)	5.1 (2)	2.6 (1)	0.0 (0)	1.7 (3)
7	5.3 (2)	0.0 (0)	2.6 (1)	0.0 (0)	3.7 (1)	2.2 (4)
8	5.3 (2)	0.0 (0)	2.6 (1)	0.0 (0)	7.4 (2)	2.8 (5)
9	0.0 (0)	0.0 (0)	2.6 (1)	2.6 (1)	0.0 (0)	1.1 (2)
12	0.0 (0)	0.0 (0)	2.6 (1)	0.0 (0)	0.0 (0)	0.6 (1)
Total	100 (27)	100 (27)	100 (27)	100 (27)	100 (27)	100 (179)

Notes: % (N).

None of the victims had enrolled in Medically Assisted Treatment (MAT) while incarcerated, however that program was instituted toward the end of this data reporting period.

Gender and Incarceration

Males made up 80.5% of all victims with a history of incarceration (Table 8). For those who had not been incarcerated, males made up 77.5% of this population while females made up 22.5% of this population.

Table 8. Gender x Incarceration Crosstabulation

	Not Incarcerated	Incarcerated	Total
Male	77.5 (1306)	80.5 (383)	78.2 (1689)
Female	22.5 (379)	19.5 (93)	21.8 (472)
Total	100.0 (1685)	100.0 (476)	100.0 (2161)

*Note: % (N).

Next, we ran a crosstabulation on these same variables while looking at each individual year separately (Table 9). Each calendar year, males made up between 76%-80.1% of all unintentional fatal overdose victims in Orange County, while females made up between 19.9%-24%.

Table 9. Gender x Incarceration Crosstabulation by Year

	Not Incarcerated	Incarcerated	Total
2018			
Male	76.9 (193)	73.7 (70)	76.0 (263)
Female	23.1 (58)	26.3 (25)	24.0 (83)
2019			
Male	75.1 (205)	79.3 (73)	76.2 (278)
Female	24.9 (68)	20.7 (19)	23.8 (87)
2020			
Male	77.8 (274)	79.4 (77)	78.2 (351)
Female	22.2 (78)	20.6 (20)	21.8 (98)
2021			
Male	79.5 (345)	82.9 (87)	80.1 (432)
Female	20.5 (89)	17.1 (18)	19.9 (107)
2022			
Male	76.9 (289)	88.4 (76)	79.0 (365)
Female	23.1 (87)	11.6 (10)	21.0 (97)

*Note: % (N).

While the percentage of all females who died of an unintentional fatal overdose each year respective to the overall population remained relatively consistent, the percentage of females with an incarceration history decreased in each year. In 2018, 26.3% of individuals with incarceration history were female, while only 11.6% of incarcerated individuals in 2022 were female. There is a downward trend illustrated each year concerning females with incarceration histories who died of an unintentional fatal overdose in Orange County, while the opposite is true for males with an incarceration history. In 2018, 73.7% of all fatal overdose victims who were incarcerated were male, while males made up 88.4% of overdose victims who were incarcerated in 2022.

Race and Incarceration

The next variable we cross tabulated with incarceration history was race. The Medical Examiner data does not provide ethnicity information, so analysis on race was limited to three race categories: white, black, and other (Table 10).

Table 10. Race x Incarceration Crosstabulation

	Not Incarcerated	Incarcerated	Total
White	82.3 (1376)	79.9 (378)	81.8 (1754)
Black	14.7 (246)	17.5 (83)	15.3 (329)
Other	3.0 (50)	2.5 (12)	2.9 (62)
Total	100.0 (1672)	100.0 (473)	100.0 (2145)

*Note: % (N). Missing cases excluded.

For individuals who had incarceration history in the year prior to death, 79.9% of these victims were white, 17.5% were black, and 2.5% fell into the other race category. Conversely, for victims who were not incarcerated in the year prior to death, 82.3% of these individuals were white, 14.7% of these individuals were black, and 3% fell into the other race category. Overdose victims who were black made up a higher percentage of previously incarcerated individuals than they did for the entire fatal overdose population, while the opposite was true for victims who were white.

We also ran another crosstabulation of these variables, analyzing them by calendar year separately (Table 11).

Table 11. Race x Incarceration Crosstabulation by Year

	Not Incarcerated	Incarcerated	Total
2018			
White	87.2 (218)	73.7 (70)	83.5 (288)
Black	12.0 (30)	24.2 (23)	15.4 (53)
Other	0.8 (2)	2.1 (2)	1.2 (4)
2019			
White	88.6 (241)	84.6 (77)	87.6 (318)
Black	8.8 (24)	15.4 (14)	10.5 (38)
Other	2.6 (7)	0 (0)	1.9 (7)
2020			
White	78.6 (276)	80.4 (78)	79.0 (354)
Black	16.5 (58)	13.4 (13)	15.8 (71)
Other	4.8 (17)	6.2 (6)	5.1 (23)
2021			
White	79.3 (337)	78.6 (81)	79.2 (418)
Black	16.5 (70)	17.5 (18)	16.7 (88)
Other	4.2 (18)	3.9 (4)	4.2 (22)
2022			
White	81.3 (305)	82.6 (71)	81.6 (376)
Black	17.1 (64)	17.4 (15)	17.1 (79)
Other	1.6 (6)	0 (0)	1.3 (6)

*Note: % (N). Missing cases excluded.

The highest percentage of previously incarcerated victims who were black is seen in 2018, accounting for 24.2% of the formerly incarcerated population that year. The highest percentage of white victims who were previously incarcerated is seen in 2019, where they accounted for 84.6% of the previously incarcerated population that year. The highest percentage of previously incarcerated victims who fell into the other race category is seen in 2020, where they accounted for 6.2% of the population of previously incarcerated victims. Formerly incarcerated victims of all race categories fluctuated each year.

Drug Type and Incarceration

The next variable we assessed was drug type. Six drug categories were cross tabulated with incarceration history (Table 12).

Table 12. Drug Type x Incarceration Crosstabulation

	Not Incarcerated	Incarcerated	Total
Fentanyl	20.7 (347)	19.9 (94)	20.5 (441)
Opioid	3.3 (55)	0.4 (2)	2.7 (57)
Other single substance	16.4 (274)	12.5 (59)	15.5 (333)
Polysubstance: fentanyl-related	49.9 (834)	61.1 (289)	52.3 (1123)
Polysubstance: opioid, non-fentanyl	6.3 (106)	3.2 (15)	5.6 (121)
Polysubstance: non-opioid	3.4 (57)	3.0 (14)	3.3 (71)
Total	100.0 (1673)	100.0 (473)	100.0 (2146)

*Note: % (N). Missing cases excluded.

The rate of polysubstance use that was fentanyl-related was the most prevalent drug category among both victims with and without a history of incarceration. However, victims who had a history of incarceration had a higher percentage of polysubstance use that was fentanyl-related (61.1%) than those who were not incarcerated (49.9%). Additionally, the percentage of this drug category was also higher among victims with an incarceration history (61.1%) than in the overall population of all victims (52.3%).

Victims without a history of incarceration had a slightly higher percentage of other single substance use (16.4%), polysubstance use that was opioid-related but not fentanyl-related (6.3%), and single opioid use (3.3%) than victims with an incarceration history did (12.5%, 3.2%, and 0.4%, respectively), and these rates for victims without an incarceration history was higher amongst their population than the overall population of all victims.

We also analyzed yearly trends when cross-tabulating drug type and incarceration history (Table 13).

Table 13. Drug Type x Incarceration Crosstabulation by Year

	Not Incarcerated	Incarcerated	Total
2018			
Fentanyl	14.6 (36)	13.7 (13)	14.3 (49)
Opioid	7.7 (19)	1.1 (1)	5.8 (20)
Other single substance	20.2 (50)	20.0 (19)	20.2 (69)
Polysubstance: fentanyl-related	44.1 (109)	55.8 (53)	47.4 (162)
Polysubstance: opioid, non-fentanyl	10.5 (26)	5.3 (5)	9.1 (31)
Polysubstance: non-opioid	2.8 (7)	4.2 (4)	3.2 (11)
2019			
Fentanyl	19.4 (53)	23.9 (22)	20.5 (75)
Opioid	5.5 (15)	1.1 (1)	4.4 (16)
Other single substance	18.7 (51)	12.0 (11)	17.0 (62)
Polysubstance: fentanyl-related	44.0 (120)	53.3 (49)	46.3 (169)
Polysubstance: opioid, non-fentanyl	9.5 (26)	6.5 (6)	8.8 (32)
Polysubstance: non-opioid	2.9 (8)	3 (3.3)	3.0 (11)
2020			
Fentanyl	21.8 (76)	20.2 (19)	21.4 (95)
Opioid	2.3 (8)	0 (0)	1.8 (8)
Other single substance	13.8 (48)	8.5 (8)	12.6 (56)
Polysubstance: fentanyl-related	53.3 (186)	67.0 (63)	56.2 (249)
Polysubstance: opioid, non-fentanyl	6.3 (22)	0 (0)	5.0 (22)
Polysubstance: non-opioid	2.6 (9)	4.3 (4)	2.9 (13)
2021			
Fentanyl	23.7 (102)	24.8 (26)	23.9 (128)
Opioid	1.9 (8)	0 (0)	1.5 (8)
Other single substance	13.2 (57)	7.6 (8)	12.1 (65)
Polysubstance: fentanyl-related	53.4 (230)	63.8 (67)	55.4 (297)
Polysubstance: opioid, non-fentanyl	4.2 (18)	1.0 (1)	3.5 (19)
Polysubstance: non-opioid	3.7 (16)	2.9 (3)	3.5 (19)
2022			
Fentanyl	21.7 (81)	15.1 (13)	20.4 (94)
Opioid	1.3 (5)	0 (0)	1.1 (5)
Other single substance	18.2 (68)	15.1 (13)	17.6 (81)
Polysubstance: fentanyl-related	50.5 (189)	66.3 (57)	53.5 (246)
Polysubstance: opioid, non-fentanyl	3.7 (14)	3.5 (3)	3.7 (17)
Polysubstance: non-opioid	4.5 (17)	0 (0)	3.7 (17)

*Note: % (N). Missing cases excluded.

In every year, for both victims with and without an incarceration history, fentanyl-related polysubstance use was the most prevalent drug category, consistent with the cumulative trends previously discussed. Victims with incarceration history saw peak numbers of fentanyl-related polysubstance use in 2020, accounting for 67% of the previously incarcerated population. Additionally, in 2020, 20.2% of individuals who were formerly incarcerated died of sole fentanyl use, meaning that 87.2% of victims with a history of incarceration who died in 2020 died of drug use that was related to fentanyl. Victims without a history of incarceration saw peak numbers of fentanyl-related polysubstance use in 2021, accounting for 53.4% of the population without a history of incarceration in that year.

The use of sole fentanyl fluctuated among both previously incarcerated victims and victims without a history of incarceration in each calendar year. For both victims with and without a history of incarceration, the highest percentage of this drug category can be seen in 2021, accounting for 23.7% of victims without a history of incarceration and 24.8% of victims with a history of incarceration in that year.

Sole opioid use was consistently higher among victims without a history of incarceration than among victims with incarceration history. However, the prevalence of sole opioid use has gone down in each calendar year for both groups of victims, with the peak numbers seen in 2018 at 7.7% of the population of victims without incarceration history, and 5.8% of the overall population of overdose victims in that year. In the years 2020-2022, no victims who were previously incarcerated died from a sole opioid.

The use of a single other substance category was consistently higher among individuals without a history of incarceration than it was among individuals who had been previously incarcerated. For both groups of victims, peak numbers are seen in 2018, where 20.2% of individuals without an incarceration history fell into this drug category, and 20% of individuals with an incarceration history fell into this drug category.

The rate of polysubstance use that was opioid-related but not fentanyl-related was also consistently higher amongst individuals without a history of incarceration. The highest percentage of individuals without a history of incarceration who fell into this drug category is seen in 2018 at 10.5% of that population. The highest percentage of individuals with a history of incarceration who fell into this drug category is seen in 2019 at 6.5% of that population. For victims without incarceration history, this drug category sees a consistent downward trend each calendar year, while it slightly fluctuates for those with a history of incarceration.

From 2018-2020, the rate of polysubstance use that was not opioid or fentanyl related was higher amongst individuals who had been formerly incarcerated. However, from 2021-2022, individuals who did not have a history of incarceration had a higher percentage of victims who fell into this drug category. The highest percentage of this drug category for victims who did not have a history of incarceration is seen in 2022 at 4.5% of this population in this year, while the highest percentage among victims with a history of incarceration is seen in 2020, accounting for 4.3% of that population in that year.

Homelessness and Incarceration

The last variable we assessed was homelessness and incarceration, which we cross tabulated as illustrated below. Homelessness data comes from Homeless Services Network (HSN), and victims were only coded as having experienced homelessness if explicitly indicated as such at time of death within the HSN data. Therefore, the actual percentage of homeless victims may be higher than what is depicted below.

Table 14. Housing Status x Incarceration Crosstabulation

	Not Incarcerated	Incarcerated	Total
Not Homeless	95.9 (1616)	88.0 (419)	94.2 (2035)
Homeless	4.1 (69)	12.0 (57)	5.8 (126)
Total	100.0 (1685)	100.0 (476)	100.0 (2161)

*Note: % (n).

Individuals with an incarceration history were nearly three times more likely to be experiencing homelessness at the time of their death (12%) as compared to individuals without an incarceration history (4.1%). Nearly half of victims who were experiencing homelessness at their time of death had been previously incarcerated.

We also analyzed yearly trends for these variables (Table 15).

Table 15. Housing Status x Incarceration Crosstabulation by year

	Not Incarcerated	Incarcerated	Total
2018			
Not Homeless	98.8 (248)	95.8 (91)	98.0 (339)
Homeless	1.2 (3)	4.2 (4)	2.0 (7)
2019			
Not Homeless	97.8 (266)	95.7 (89)	97.3 (355)
Homeless	2.2 (6)	4.3 (4)	2.7 (10)
2020			
Not Homeless	94.3 (332)	76.3 (74)	90.4 (406)
Homeless	5.7 (20)	23.7 (23)	9.6 (43)
2021			
Not Homeless	95.6 (415)	90.5 (95)	94.6 (510)
Homeless	4.4 (19)	9.5 (10)	5.4 (29)
2022			
Not Homeless	94.4 (355)	81.4 (70)	92.0 (425)
Homeless	5.6 (21)	18.6 (16)	8.0 (37)

*Note: % (N).

In each calendar year, individuals with no incarceration history were less likely to be experiencing homelessness at their time of death, compared to individuals who did have an incarceration history. The year with the highest percentage of victims who were unhoused when they died and previously incarcerated was in 2020 (23.7%), while the year with the lowest was 2018 (4.2% of formerly incarcerated victims were unhoused at the time of death).

Conclusion

Based on the analysis of unintentional fatal overdose victims in Orange County, Florida, who had been incarcerated in the Orange County Jail within a year preceding their deaths from 2018 to 2022, several critical patterns and trends emerge. Over this five-year period, a significant proportion (22.9%) of overdose victims had recent incarceration histories, indicating a noteworthy intersection between substance use disorders, incarceration, and fatal outcomes. The data reveal fluctuations in incarceration rates among overdose victims over the years, with the

highest percentage of incarceration observed in 2018 (27.7%) and a decline over subsequent years. This decline suggests potential shifts in policies, interventions, or broader community dynamics influencing the relationship between incarceration and fatal overdoses.

Further insights emerge when examining the frequency of incarcerations among individuals prior to their fatal overdose. The analysis shows a wide range, from one-time incarcerations to extreme cases with over 25 instances of incarceration. Notably, nearly 20% of victims were incarcerated only 1-2 times before their overdose, underscoring the complex and varied experiences of individuals caught in cycles of incarceration and substance use disorders. The data also shed light on the prevalence of specific substances, particularly fentanyl-related polysubstance use, among incarcerated individuals who died of overdoses. Fentanyl was implicated in a majority (80.4%) of fatal overdoses, either alone or in combination with other substances. The consistently high prevalence of fentanyl underscores its central role in overdose deaths and highlights the urgent need for targeted interventions addressing this specific risk factor. These findings underscore the multifaceted nature of the overdose crisis, emphasizing the importance of integrated strategies that address substance use disorders, mental health challenges, and the intersection of incarceration and addiction.

This analysis generally predates the availability of medically assisted treatment (MAT) in the jail. Future research will need to compare outcomes among individuals who begin MAT while incarcerated to those who do not to determine how successful beginning MAT while incarcerated is in combatting fatal overdoses.