

December 1, 2021



Center for Substance Abuse Research

Denver Health Medical Center

Drug Test Results from the Hospital's Electronic Health Records, January 2017-June 2021

Denver Health Medical Center submitted drug test results for 1,900 specimens tested by the hospital laboratory for the period of January 1, 2017 through June 30, 2021 that met the study eligibility criteria. De-identified data were obtained for patients 18 years or older presenting to the emergency department with a complaint of “overdose” or “naloxone” and/or any ICD 10-CM T36-T50 initial encounter diagnosis code of overdose with accidental (unintentional), intentional self-harm, or undetermined intent that had a drug urinalysis conducted with valid drug test results available.

Highlights from Table 1 and Figures 1 and 2

- In the April-June 2021 quarter, benzodiazepines reached their highest level (47%) since January, 2017 and amphetamines (41%) were just below their series high of 42% (Table 1).
- Opiate positives peaked at 23% in April-June 2020, and have been decreasing since that time, reaching 9% in (April-June 2021), near their lowest level of 8% (Figure 1).
- Benzodiazepines and amphetamines are at/near the top of their 5-year ranges; opiates are near their lowest level (Figure 2).

Figures 3, 4, and 5 analyze combined data from January 2017-June 2021

- Patients positive for methadone and cocaine had the highest median ages (42 and 39, respectively, Figure 3).
- Methadone and opiate positive specimens contained the largest number of drugs (mean=2.5 and 2.3, respectively, Figure 4).
- About half (54%) of opiate positive specimens also contained amphetamines and 42% contained benzodiazepines. One half (53%) of methadone positive specimens also tested positive for amphetamines (Figure 5).

The Emergency Department Drug Surveillance (EDDS) project is funded by the Executive Office of the President, Office of National Drug Control Policy (ONDCP), Cooperative Agreement #G2099ONDCP09A awarded to Center for Substance Abuse Research (CESAR) at University of Maryland, College Park. The information and opinions expressed herein are the views of the authors and do not necessarily represent the views of ONDCP or any other agency of the Federal Government. For additional data: <https://cesar.umd.edu/landing/EDDS>.

**Table 1: Drugs Detected in Specimens from Denver Health Medical Center
Emergency Department (ED) Drug Overdose Patients, By Quarter**

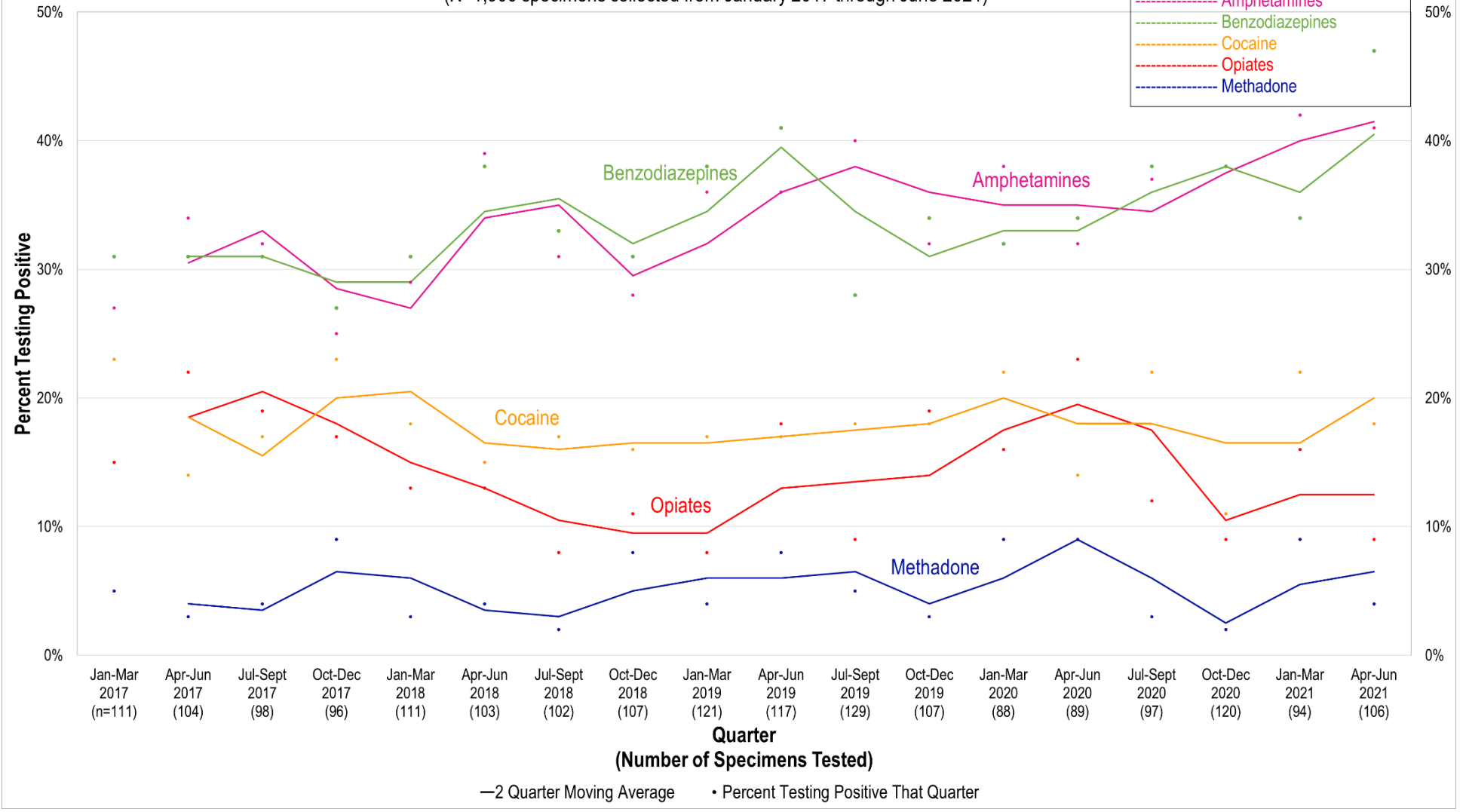
(N=1,900 specimens collected from January 2017 through June 2021)

Quarter (N of specimens tested)	Benzodiazepines %	Amphetamines %	Opiates %	Cocaine %	Methadone %
January-March 2017 (111)	31	27	15	23	5
April-June 2017 (104)	31	34	22	14	3
July-September 2017 (98)	31	32	19	17	4
October-December 2017 (96)	27 L	25 L	17	23 H	9
January-March 2018 (111)	31	29	13	18	3
April-June 2018 (103)	38	39	13	15	4
July-September 2018 (102)	33	31	8	17	2
October-December 2018 (107)	31	28	11	16	8
January-March 2019 (121)	38	36	8 L	17	4
April-June 2019 (117)	41	36	18	17	8
July-September 2019 (129)	28	40	9	18	5
October-December 2019 (107)	34	32	19	18	3
January-March 2020 (88)	32	38	16	22	9
April-June 2020 (89)	34	32	23 H	14	9
July-September 2020 (97)	38	37	12	22	3
October-December 2020 (120)	38	38	9	11 L	2 L
January-March 2021 (94)	34	42 H	16	22	9 H
April-June 2021 (106)	47 H	41	9	18	4

Notes: H: Highest %. L: Lowest %. If there are multiple highs or lows, the most recent quarter is selected as the high/low.

In the April-June 2021 quarter, benzodiazepines reached their highest level (47%) since January, 2017 and amphetamines (41%) were just below their series high of 42%.

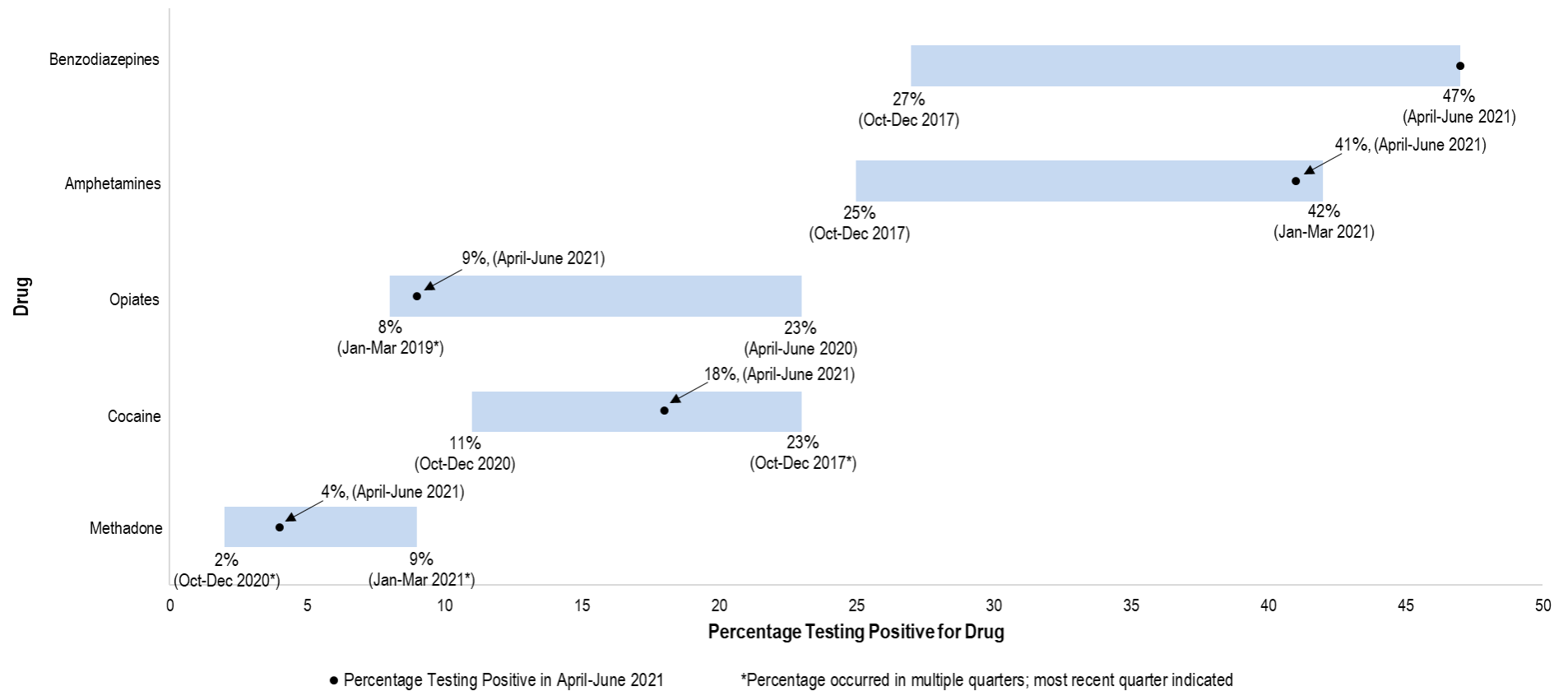
**Figure 1: Drugs Detected in Specimens from Denver Health Medical Center
Emergency Department (ED) Drug Overdose Patients, By Quarter**
(N=1,900 specimens collected from January 2017 through June 2021)



Opiate positives peaked at 23% in April-June 2020, and have been decreasing since that time, reaching 9% in (April-June 2021), near their lowest level of 8%.

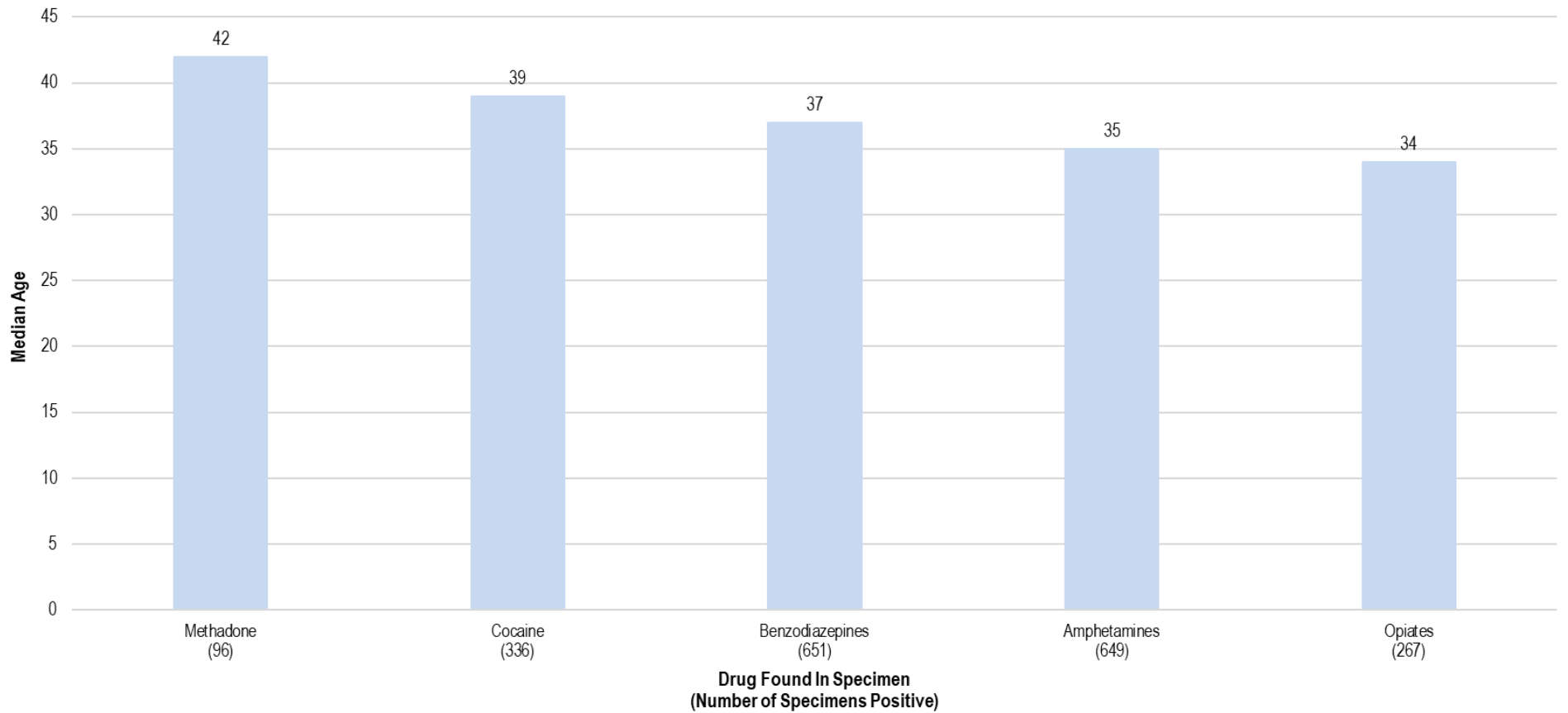
Figure 2: Range of the High and Low of Quarterly Percentages Testing Positive for Each Drug at the Denver Health Medical Center Emergency Department (ED), January 2017-June 2021

(N=1,900 specimens collected from drug overdose patients)



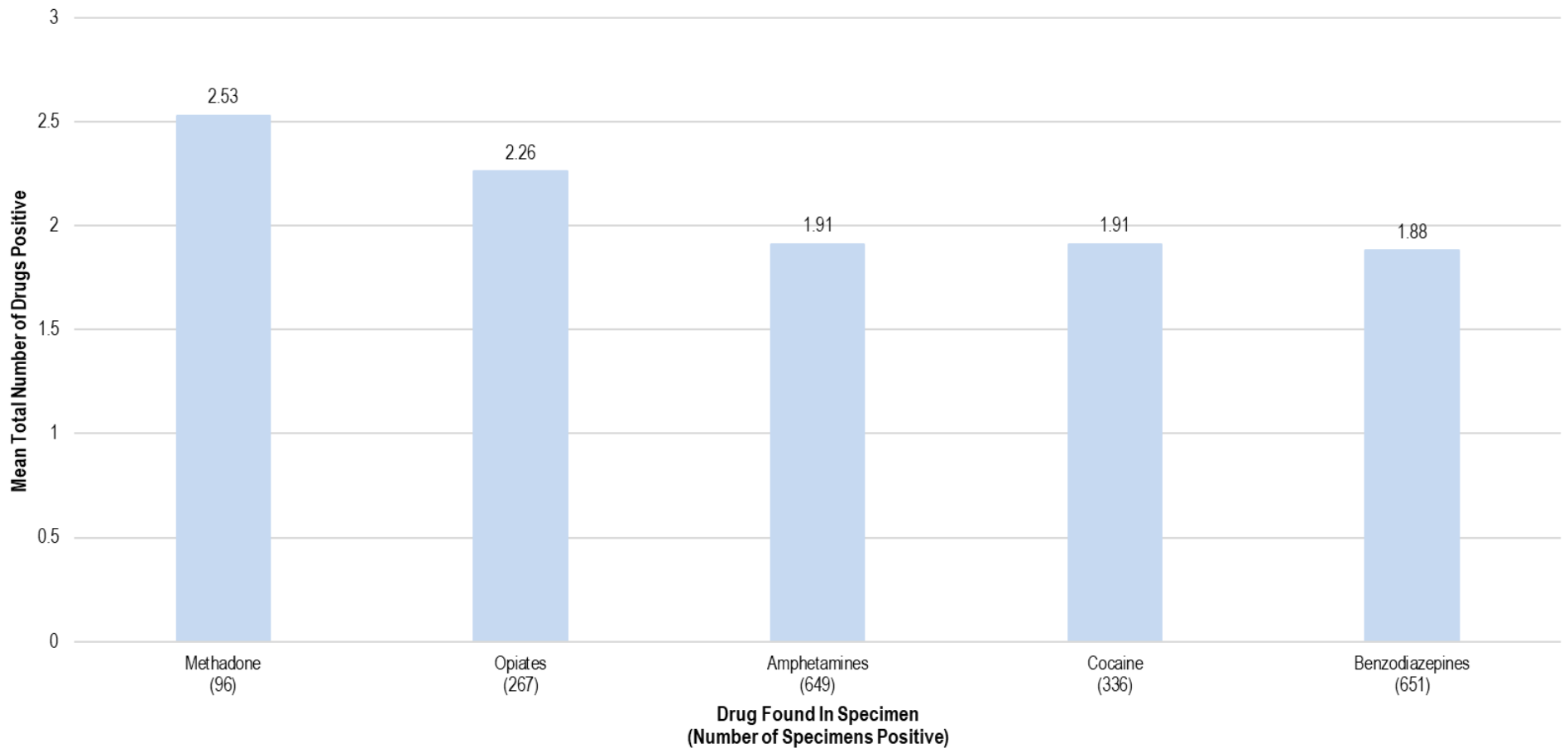
Benzodiazepines and amphetamines are at/near the top of their 5-year ranges; opiates are near their lowest level.

**Figure 3: Median Patient Age, By Drug Positive in Specimens from Denver Health Medical Center
Emergency Department (ED) Drug Overdose Patients**
(N=1,900 specimens from January 2017 through June 2021 combined)



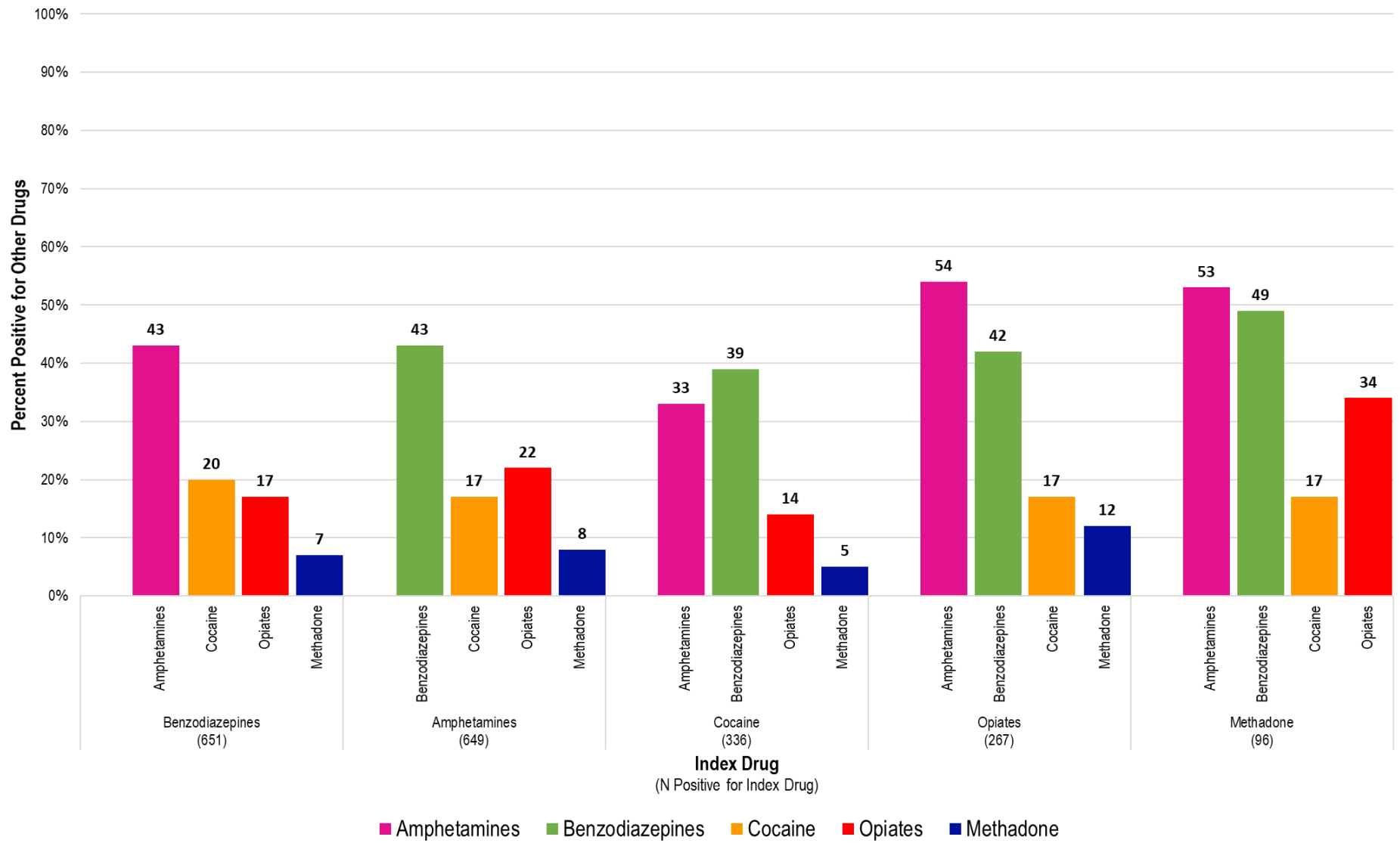
Patients positive for methadone and cocaine had the highest median ages (42 and 39, respectively).

Figure 4: Mean Total Number of Drugs Positive, By Drug Positive in Specimens from Denver Health Medical Center Emergency Department (ED) Drug Overdose Patients
(N=1,900 specimens from January 2017 through June 2021 combined)



Methadone and opiate positive specimens contained the largest number of drugs (mean=2.5 and 2.3, respectively).

Figure 5: Other Drugs Found in Specimens Positive for an Index Drug
 (N=1,900 specimens from Denver Health Medical Center from January 2017 through June 2021 combined)



About half (54%) of opiate positive specimens also contained amphetamines and 42% contained benzodiazepines. One half (53%) of methadone positive specimens also tested positive for amphetamines.