

2017

PRELIMINARY DRUG DEATHS REPORT

CUYAHOGA COUNTY MEDICAL EXAMINERS OFFICE

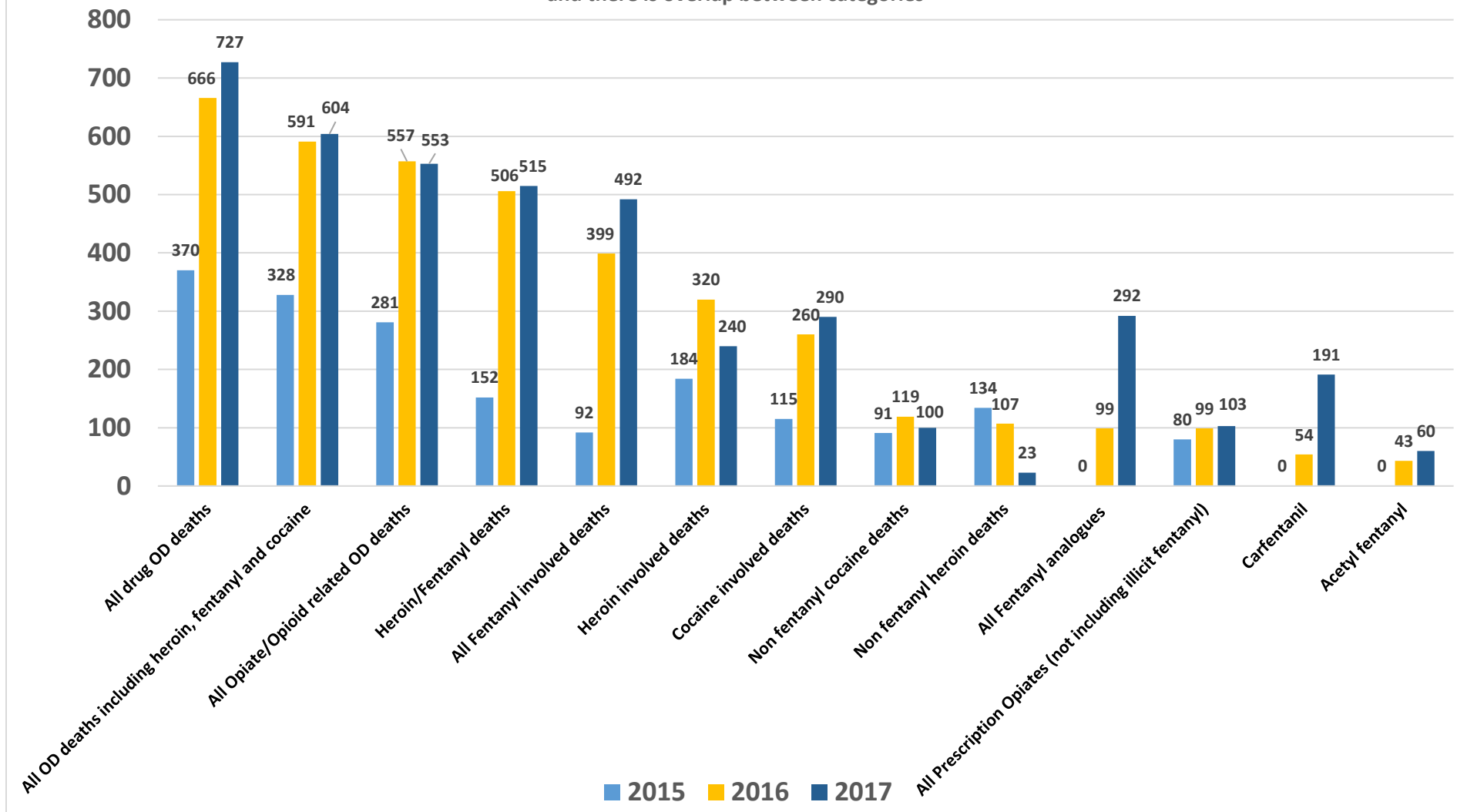
DR. THOMAS P. GILSON, MD

CUYAHOGA COUNTY | 11001 Cedar Ave., Cleveland, OH 44106



CCMEO 2015-17 Opioid involved deaths

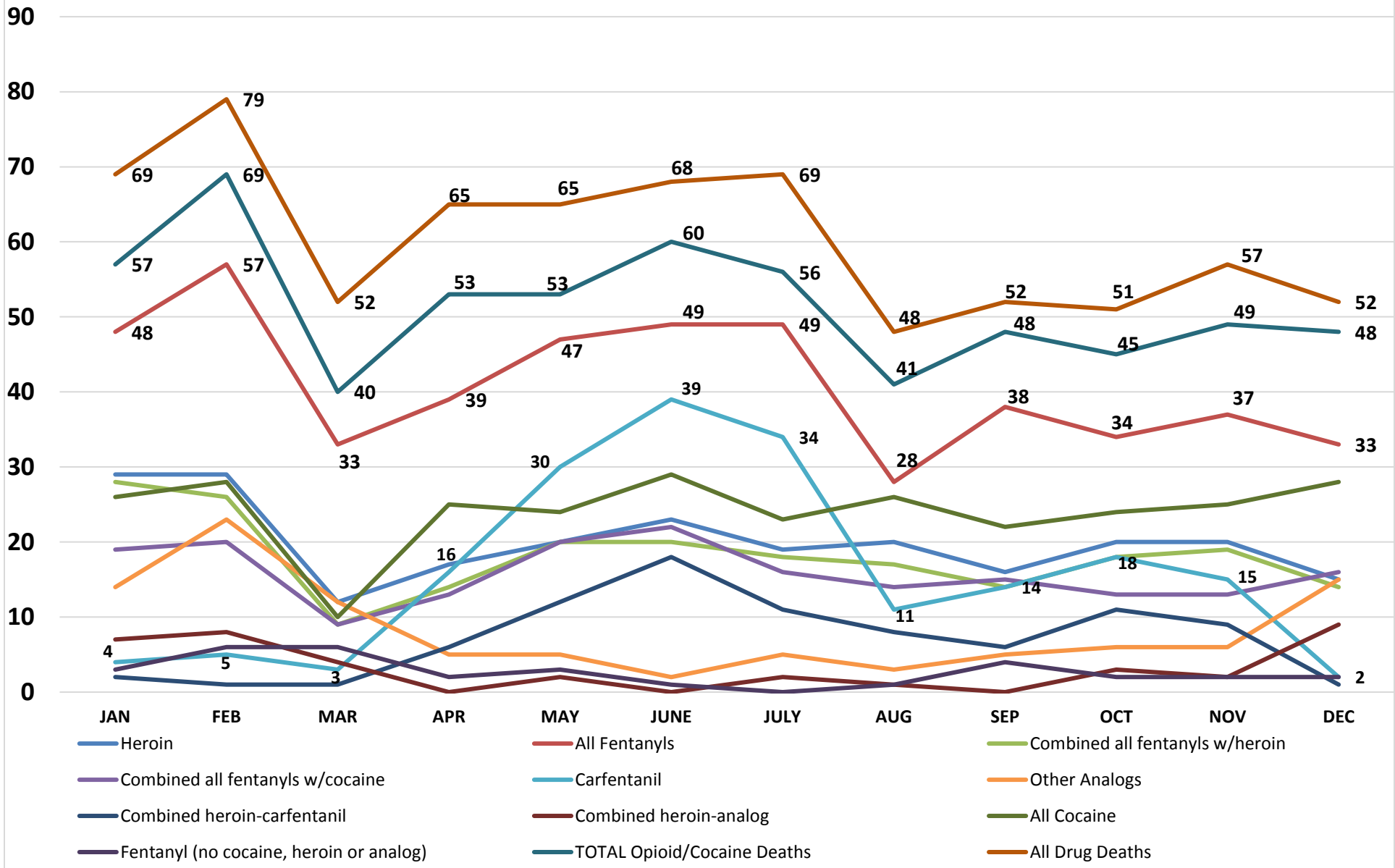
Notes: All analogues are included in total fentanyl-involved deaths and there is overlap between categories



Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



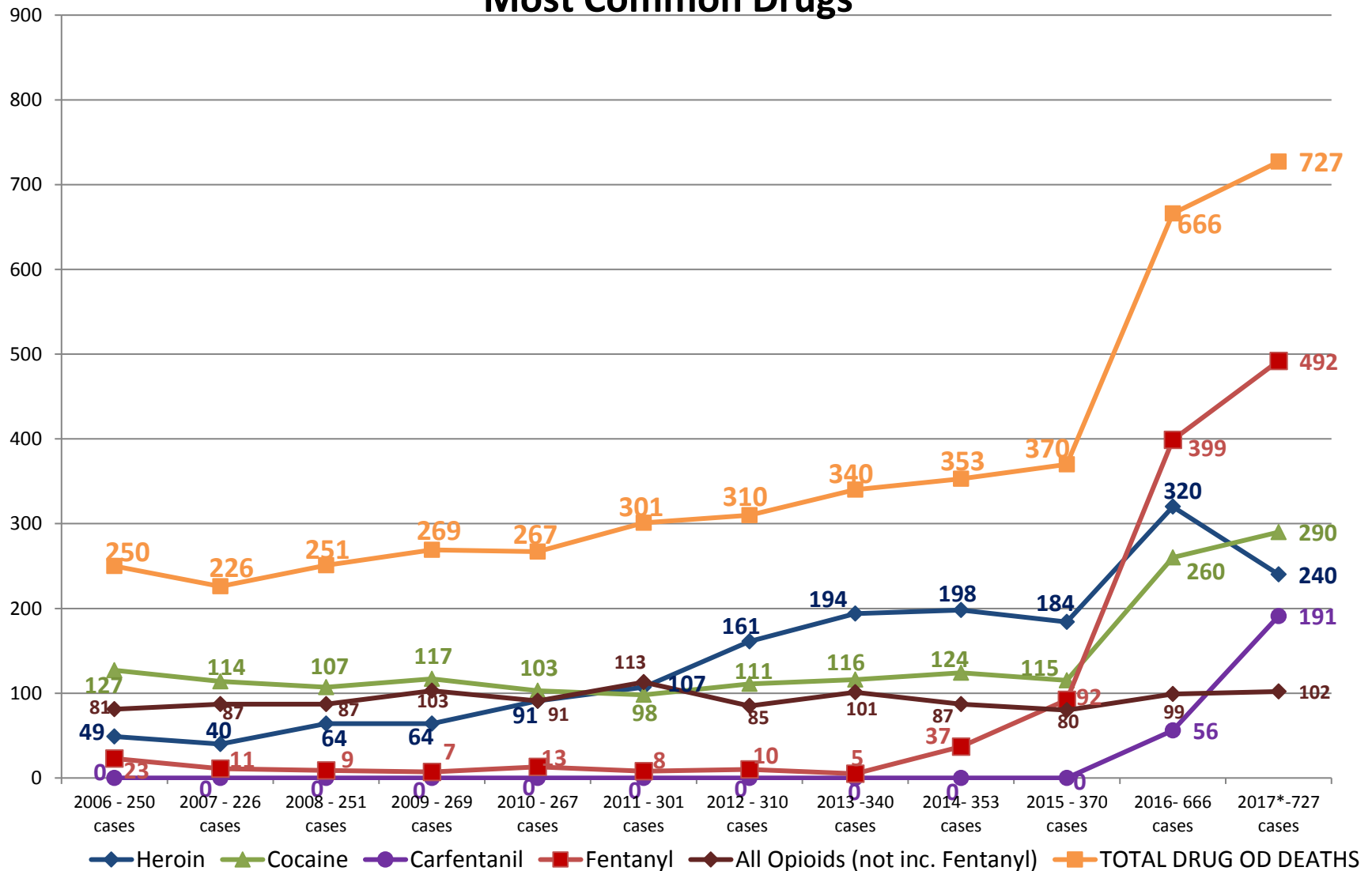
CCMEO All Drug Related Deaths 2017, By Type and Combinations, By Month



Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



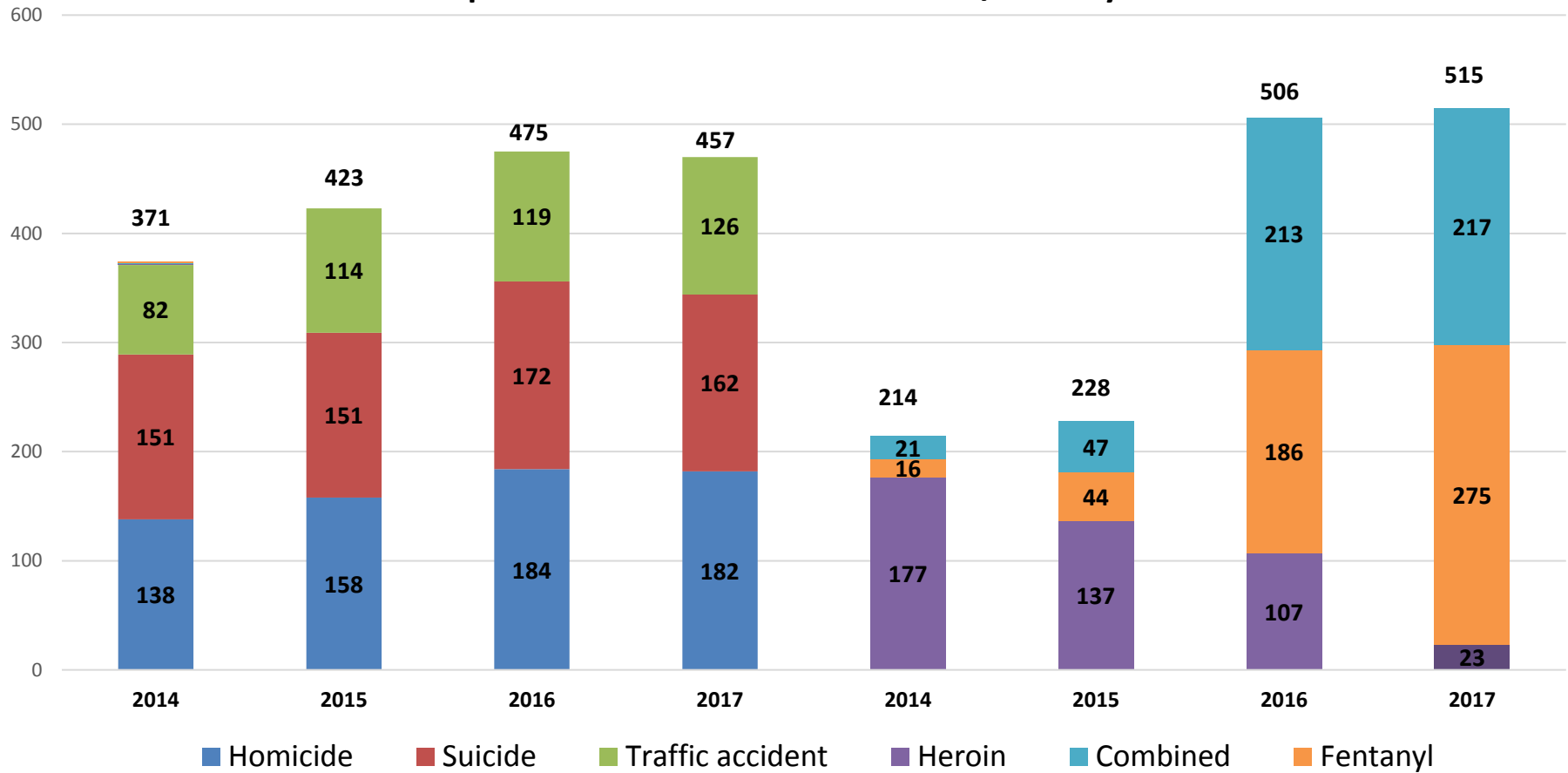
Cuyahoga County Overdose Deaths 2006-2017 Most Common Drugs



Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



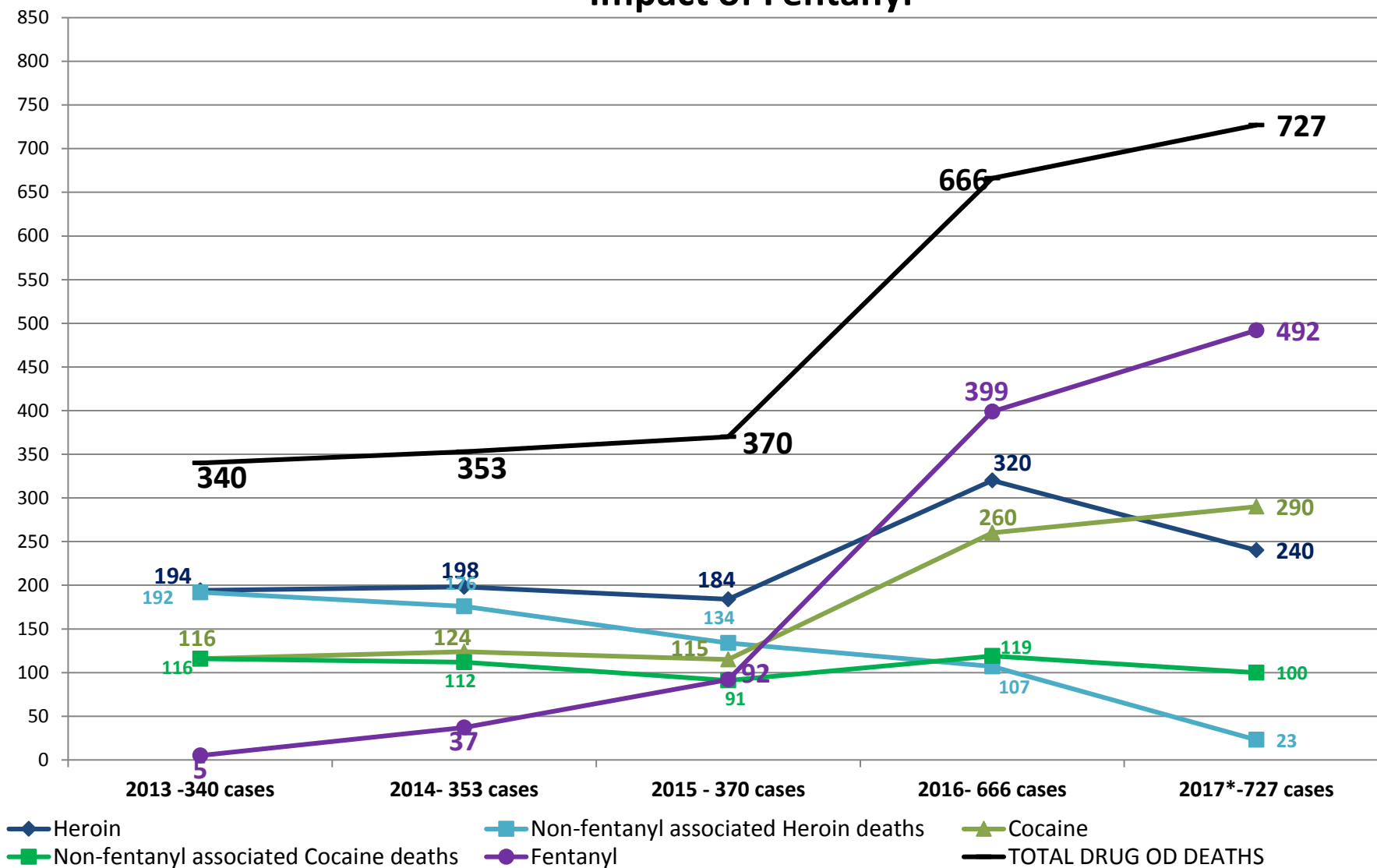
CCMEO Comparison Violent Deaths vs. Heroin/Fentanyl 2014-2017



Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



Cuyahoga County Overdose Deaths 2013-2017 Impact of Fentanyl

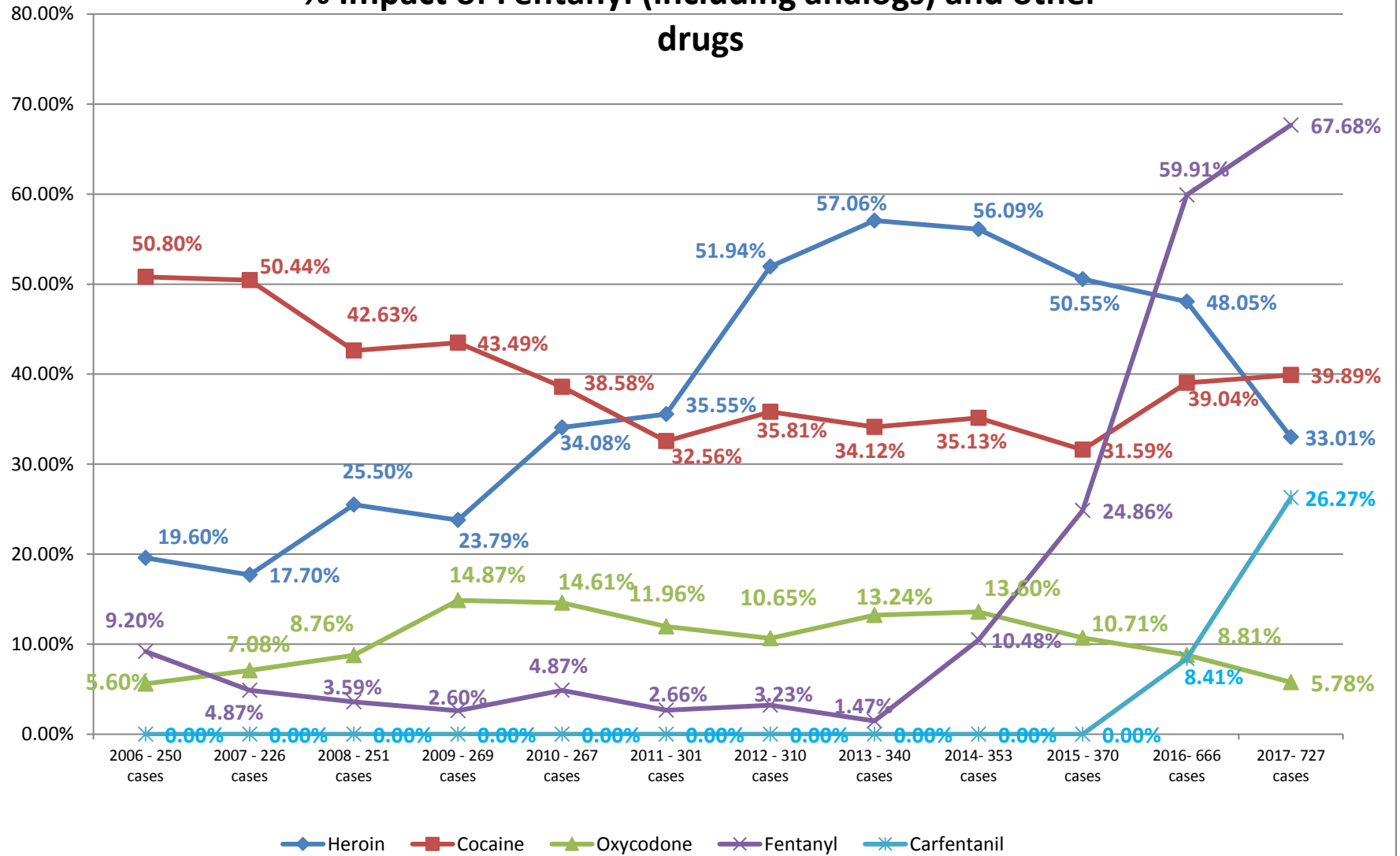


Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



Cuyahoga County Overdose Deaths 2006-2017

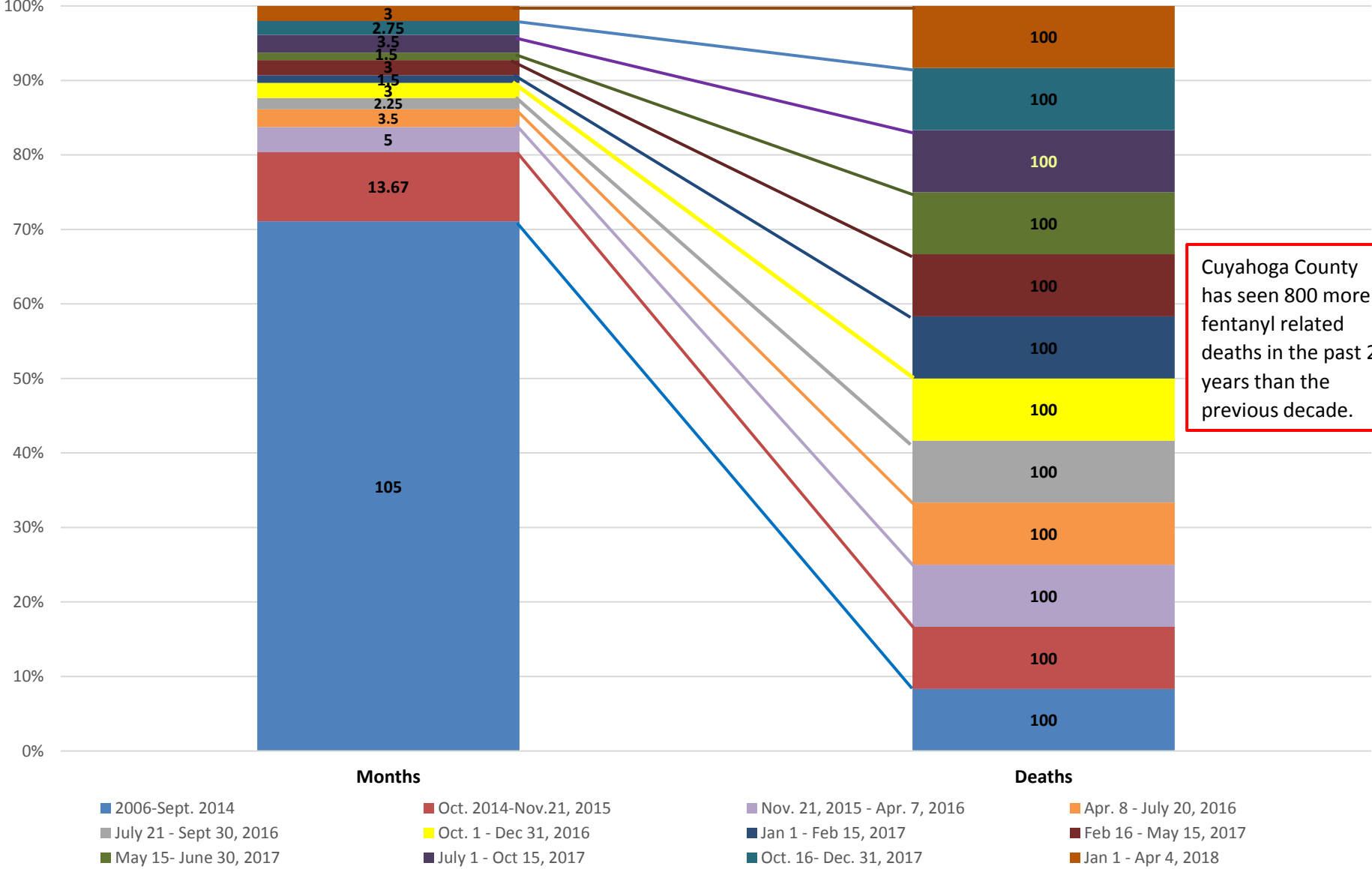
% Impact of Fentanyl (including analogs) and other drugs



Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



Cuyahoga County Fentanyl Deaths 2006-2018

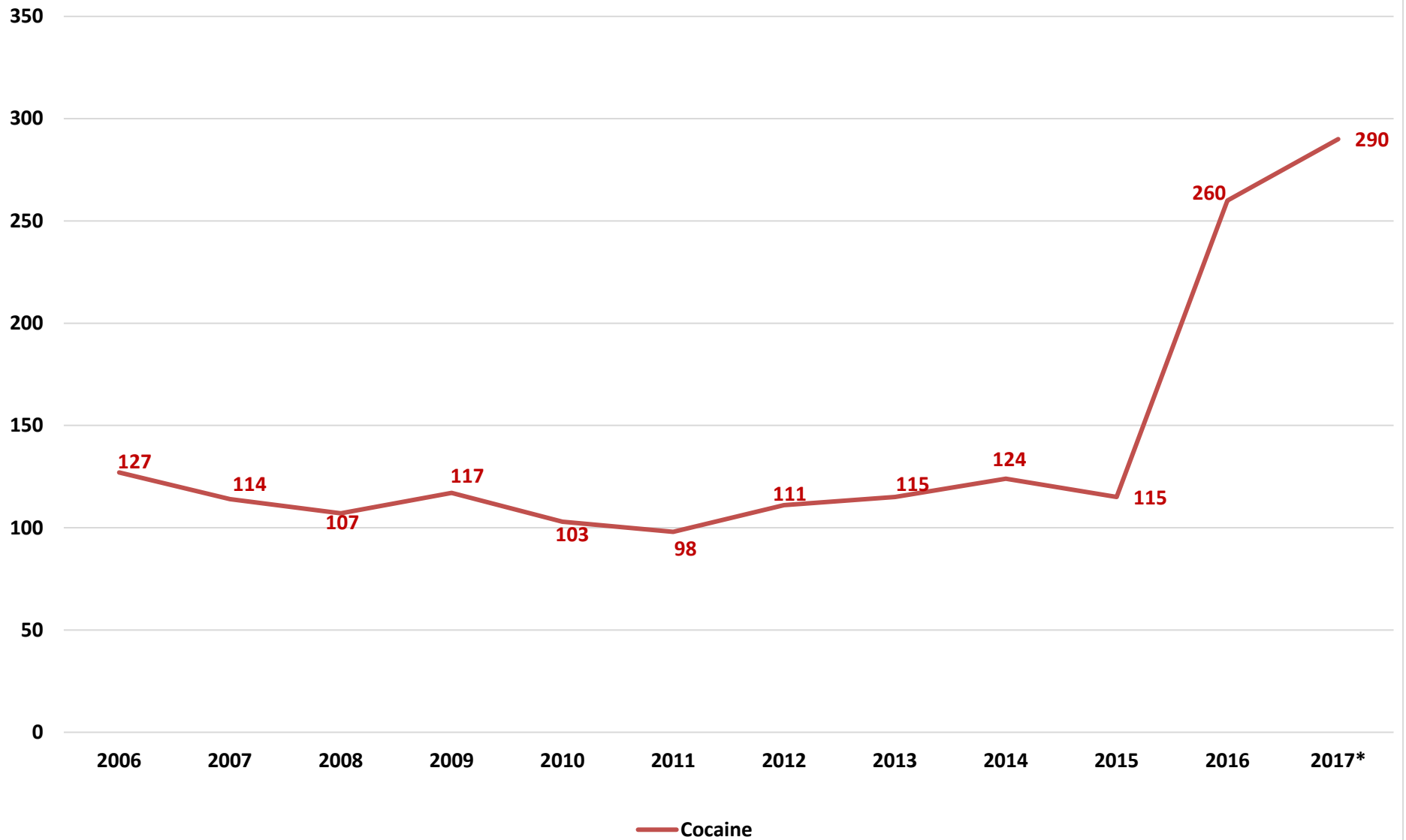


Cuyahoga County has seen 800 more fentanyl related deaths in the past 2 years than the previous decade.

Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



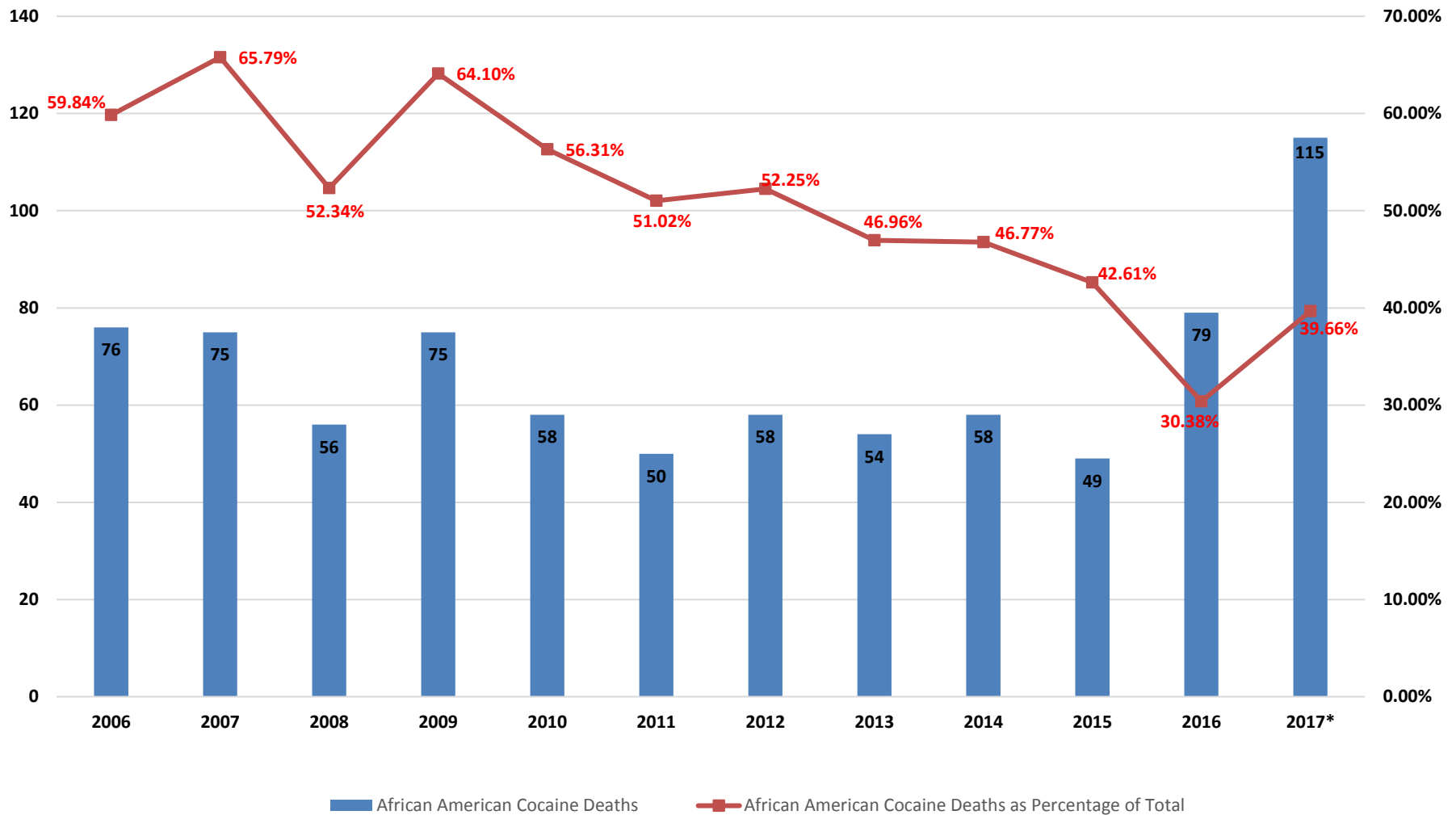
CCMEO Overdose Deaths involving Cocaine 2006-2017 The Explosion of Cocaine



Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



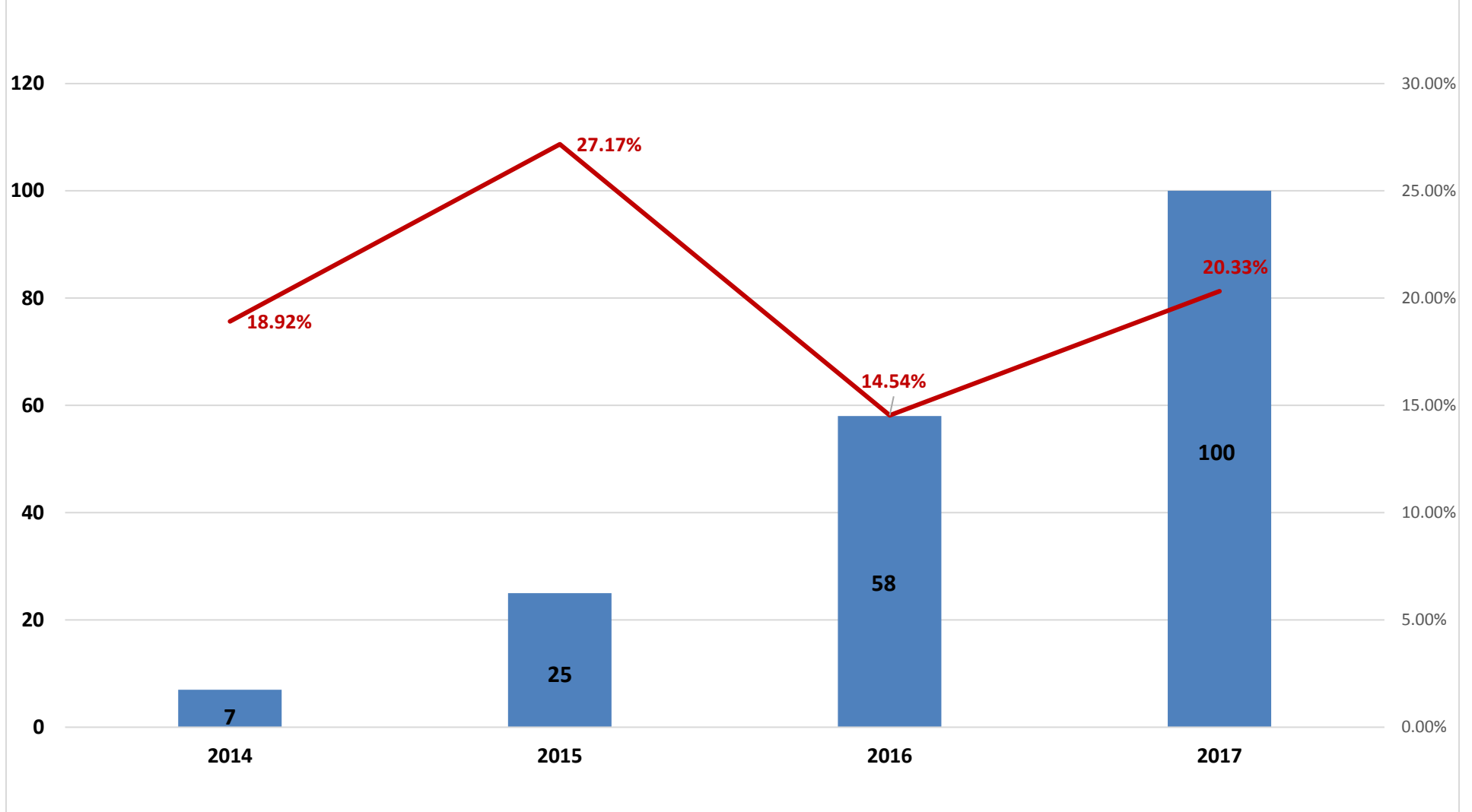
CCMEO Cocaine related Overdose Deaths 2006-2017 Demographic Shift in Cocaine Deaths (Includes cocaine/fentanyl mixed cases)



Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



CCMEO Fentanyl-related fatalities among African Americans 2014-2017

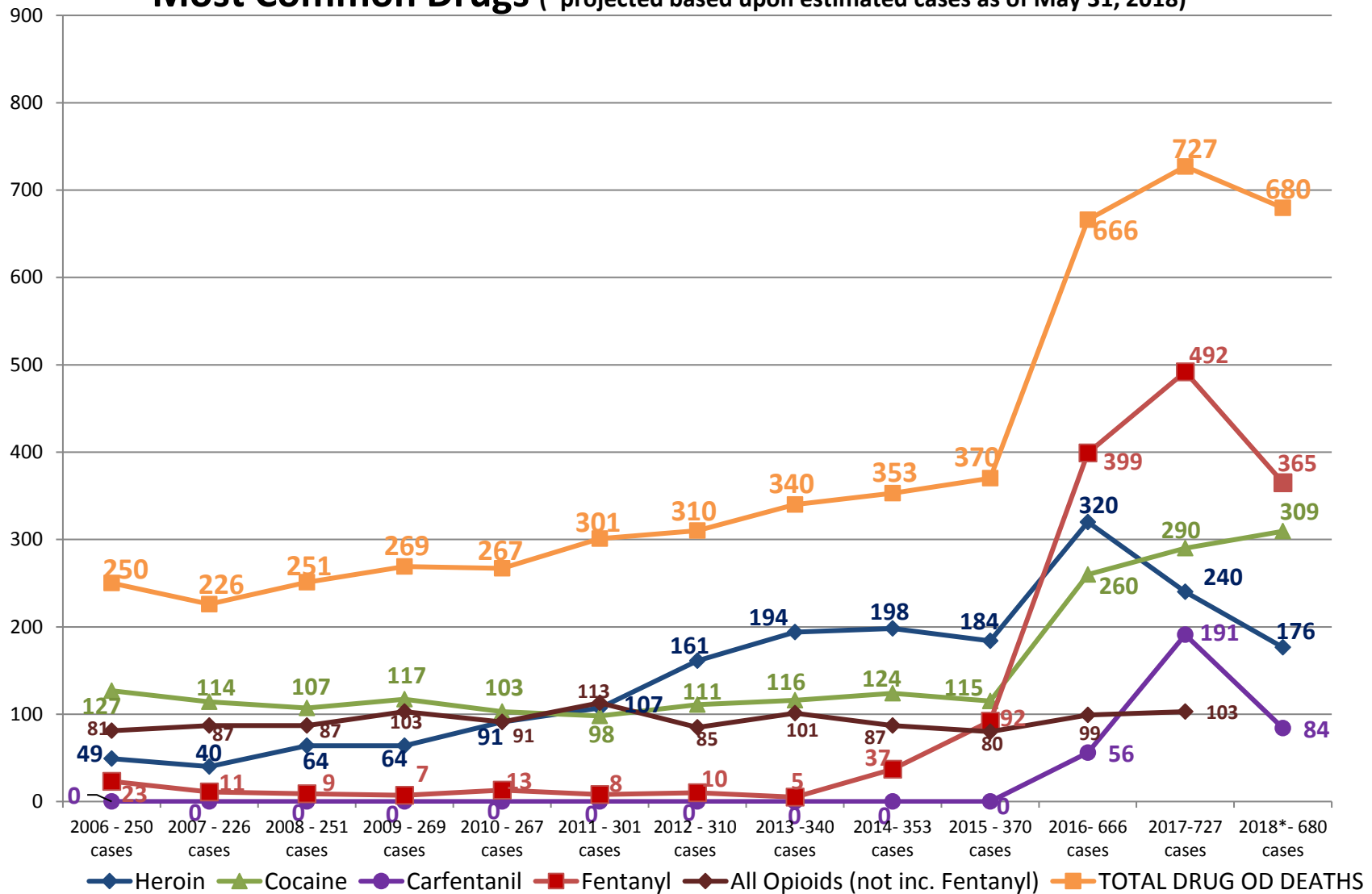


Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



Cuyahoga County Overdose Deaths 2006-2018*

Most Common Drugs (*projected based upon estimated cases as of May 31, 2018)

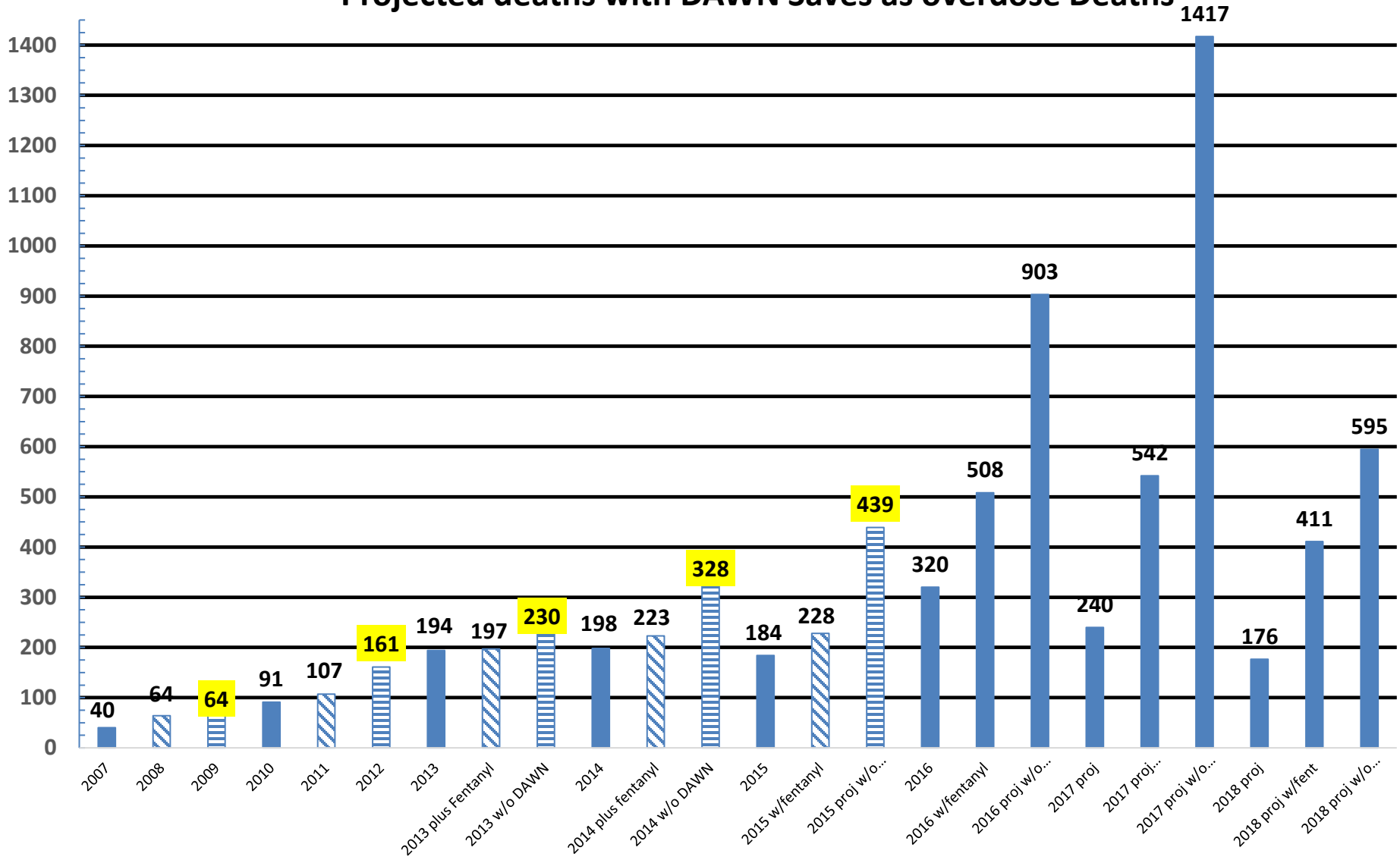


Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



Cuyahoga County Heroin/Fentanyl Related Overdose Deaths 2013-2017

Projected deaths with DAWN Saves as overdose Deaths



Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



2017 AGENCY IMPACTS –

CASE INVESTIGATIONS

Pathologist	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	31.7	27	30.1	26.1	30.4	33.1	21.1	16.4	18.7	25.4	27.3	13.3	300.6
	25	24	14.1	22	7.6	0.3							93
								7	15	0	11	15	48
	33	24.4	36.9	24	30	32.6	15	16.4	18.1	32.9	23.3	20.4	307
	27.9	13.6	12.9	15.9	20.4	17.3	13.4	17.4	15.4	8.1	7.1	27.4	196.8
	28.1	33.3	28.9	26	5.6	39.3	27.1	23.3	23.3	32.1	28.7	25.3	321
	18.7	9	14.9	8	16.7	19.7	9.3	5.3	11.3	14.1	4	11.9	142.9
											7	6	13
							28	25	16	25	24	27	145
	35.7	27.6	18.9	19.9	34.9	30.3	21.3	22.9	23	22.9	28	20.4	305.8
		23.9	35.4	31.1	27.6	29.3	21.9	19.7	17.6				206.5
							23	25	18	24	27	17	134
Total # Cases:	200.1	182.8	192.1	173	173.2	201.9	179.1	177.7	176.4	181.5	183.4	174.7	2214

DRUG CHEMISTRY

MEDICAL EXAMINER / CCFRSL	2017												
Drug Chemistry	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Submissions	512	566	635	553	571	615	550	650	539	603	549	526	6869
Submissions Completed	553	475	688	577	655	564	616	622	516	569	551	610	6996
Completed from Previous Month/s	142	105	201	145	126	47	100	38	72	100	154	157	1387
Submissions Pending (Backlog)	172	175	144	106	52	41	45	24	51	71	56	63	1000
10 day Completion (%)	85.1	80.6	81.9	92.8	90.2	99.6	99.9	99.9	100	97.8	98.3	94.2	93.36
5 day Completion (%)	80.8	69.8	67.4	85.2	85.9	96.9	96.4	92.7	94.5	84.7	65.5	66.7	82.21
Average TAT	6	6.8	5.6	3.7	3.7	2	2.2	2.6	2.8	4.1	5	4.6	4.09
Items Processed	1396	1489	1990	1809	1825	1744	1704	1862	1581	2119	1645	2258	21422

Source: Cuyahoga County Medical
Examiner's Office revised 6-1-18



2017 AGENCY IMPACTS –

TOXICOLOGY

MEDICAL EXAMINER / CCFRSL	2017												
Toxicology	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Cases Submitted	322	319	329	258	291	321	291	327	274	303	323	294	3652
Cases Completed	275	188	140	400	352	330	193	261	261	332	553	358	3643
Cases Pending (Backlog)	589	697	902	753	712	702	827	872	887	857	601	564	
Avg TAT (Days) - ALL	46	46	37	91	82	67	71	67	69	88	88	61	67.75
90% Completion (Days)	84	79	82	142	114	116	142	129	158	163	152	120	123.4167
Avg TAT (Days) - POS	66	75	88	108	96	84	103	91	102	109	104	85	92.58333
Avg TAT (Days) - NEG	9	5	7	21	19	15	9	14	9	19	25	10	13.5

HOMICIDES

MEDICAL EXAMINER / CCFRSL	2017												
Statistics & Records	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Homicides													
City of Cleveland	13	7	14	7	10	7	7	14	12	12	13	15	131
Suburban Cuyahoga County	4	4	3	1	5	8	3	2	1	6	5	4	46
Out of County	1	1	0	0	0	1	0	1	0	0	0	1	5
Unknown	1	0	0	0	0	0	0	0	0	1	0	0	2
TOTAL	19	12	17	8	15	16	10	17	13	19	18	20	184

Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



AGENCY IMPACTS – CASE INVESTIGATIONS (By month and doctor)

2014	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL
	21.6	21.9	21.9	15.6	17.3	20.9	29	10.9	25	18.6	21	15.9	239.6
	0	0	0	0	0	0	0	6	29	29	29.3	31.6	124.9
	27.1	12	18.6	17	27.4	18.3	7.3	24.7	13.7	14.4	17.3	16.9	214.7
	24.4	33	17	20.1	12.6	25.4	27.1	17.7	19.7	14.9	13.4	19.4	244.7
	6.7	14.9	8.3	10.4	17	7.7	24.9	15.4	13.3	11	10.3	18.1	158
								27	18	21	19	22	107
	21.7	11	15.1	27.7	29.7	18.1	25.1	18.6	26.3	16	15.7	18	243
	26	25	18.3	22.3	20	2.3							113.9
	26.3	20.9	19.6	20.4	18.6	20.4	29	16	10.6	27.1	14.9	13.1	236.9
TOTAL	153.8	138.7	118.8	133.5	142.6	113.1	142.4	136.3	155.6	152	140.9	155	1682.7
2015	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL
	28.3	10.3	25.3	15.1	18.4	17	33.4	23.6	18.6	28.3	22.4	14.9	255.6
	26.3	21.1	23.6	27.4	34	31.3	29.1	25.4	20	23.7	19.7	18.6	300.2
	18.9	11.4	19.3	13.7	24.3	16.1	19.1	22.7	19.6	8.1	18.4	25.3	216.9
	26.4	24.1	20.7	10.9	25	31	22.3	28.6	22.3	27.4	20.7	18.7	278.1
	12.1	8.6	13.9	19.9	10.4	17.9	9.6	5	15.7	12.9	9	24.4	159.4
							17	23	20	22	21	20	123
	24	20	21	26.1	22.6	17.7	0.9						132.3
							25	23	14	19	21	24	126
	16.7	22.6	18.4	26.1	19.3	28.4	18.4	19.4	25.6	25	24	11.3	255.2
	22.4	20.9	12.7	11.3									67.3
TOTAL	175.1	139	154.9	150.5	154	159.4	174.8	170.7	155.8	166.4	156.2	157.2	1914
2016	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL
	23.4	11	26.6	18.9	22.7	35.1	33.9	32	28.1	29.7	35.3	29.1	325.8
							23	27	22	31	21	26	150
	22.4	26.3	22.1	20.6	32.3	31.3	27.4	37.9	26.1	29	23.7	36	335.1
	26.4	8	22.9	14.9	37.6	25.4	0	37.6	20.1	18.9	22.7	18.3	252.8
	16.1	29	29.3	19	9.3	38.1	40.6	39.6	33.4	30.7	32.9	19.4	337.4
	9.3	11.3	12.9	17.1	24	11.6	29.1	21.4	13	25	15.4	37	227.1
	26	26	32.3	29.4	15.6	0	0	0	0	0	0	0	129.3
	24.4	29.9	28.9	22.7	22.1	0.9	0	0	0	0	0	0	128.9
	17	26.3	16.3	17.9	28.3	31.9	34.3	25	36.3	31.4	31.6	22	318.3
TOTAL	165	167.8	191.3	160.5	191.9	174.3	188.3	220.5	179	195.7	182.6	187.8	2204.7

Note: 2016 caseload increased 16.196%

Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



AGENCY IMPACTS - DRUG CHEMISTRY

MEDICAL EXAMINER / CCFRSL														
Drug Chemistry 2016	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	
Submissions	424	483	495	524	562	493	299	514	570	502	476	431	5773	
Submissions Completed	420	400	546	397	687	494	303	518	441	595	469	414	5684	
Completed from Previous Month/s	83	92	166	93	228	116	109	111	77	205	107	124	1511	
Submissions Pending (Backlog)	69	69	66	220	110	57	112	119	158	119	115	106	1320	
10 day Completion (%)	95.7	95.5	84.4	85.8	74.2	91.8	75.2	82.2	91.6	80.6	89.3	88.4	86.23	
5 day Completion (%)	83.1	70.5	69.9	69	56.9	80	72.6	74.7	82.7	70.5	71.6	78.9	73.37	
Average TAT	3.6	3.9	5.9	5.9	8	7.5	7.2	5.1	4.3	7.4	5.9	6.6	5.94	
Items Processed	1412	665	1321	1056	1438	1176	988	1289	1085	1623	1228	1296	14577	

MEDICAL EXAMINER / CCFRSL	2015													
Drug Chemistry	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	
Submissions	436	377	489	495	373	392	400	396	467	475	415	425	5140	
Submissions Completed	450	366	501	462	400	400	372	400	393	419	344	618	5125	
Completed from Previous Month/s	53	42	52	38	69	46	39	67	63	137	193	273	1072	
Submissions Pending (Backlog)	23	31	3	58	34	3	0	0	71	93	214	27	557	
10 day Completion (%)	97	93	94	97	95	97	80	98	94	81	65	71	1063	
5 day Completion (%)	82	79	87	89	85	88	36	93	69	48	43	41	840.2	
Average TAT	3	4	3	3	3	3	5	3	5	6	7	9	53.9	
Items Processed	863	655	968	1063	931	946	825	884	680	1164	769	1124	10872	

Note: 2016 caseload increased 10.96% & items processed in those cases has increased by 34.07%.

MEDICAL EXAMINER / CCFRSL	2014													
Drug Chemistry	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	
Cases Submitted	487	489	555	600	590	578	585	609	636	548	344	478	6499	
Cases Completed	436	488	593	616	577	539	639	549	503	666	453	451	6510	
Cases Pending (Backlog)	71	74	0	5	6	29	11	93	188	32	21	31		
10 day Completion (%)	98	98	98	99	98	98	98	96	73	36	83	90	88.75	
5 day Completion (%)	90	82	92	96	92	92	88	72	40	6	46	70	72.17	
Average TAT	2.4	3.4	2.5	1.9	2.3	2.3	2.9	5.5	7.5	12.9	6.1	4	4.48	
Items Processed	857	1135	1282	1485	1008	800	1334	1014	882	1270	975	941	12983	

Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



AGENCY IMPACTS - TOXICOLOGY

MEDICAL EXAMINER / CCFRSL	2016												
Toxicology	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Cases Submitted	291	292	308	260	292	289	289	349	305	313	304	273	3565
Cases Completed	329	260	257	246	337	271	268	348	296	275	265	261	3413
Cases Pending (Backlog)	258	300	357	378	337	358	383	388	398	448	493	511	
Avg TAT (Days) - ALL	32	31	34	37	38	34	40	41	35	43	45	43	37.75
90% Completion (Days)	59	55	55	57	60	59	59	59	59	59	59	64	58.67
Avg TAT (Days) - POS	51	44	46	49	47	48	50	51	45	54	57	56	49.83
Avg TAT (Days) - NEG	7	4	7	8	12	6	10	12	7	7	12	15	8.917

MEDICAL EXAMINER / CCFRSL	2015												
Toxicology	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Cases Submitted	292	255	249	279	280	270	282	292	272	276	278	258	3283
Cases Completed	289	271	222	362	255	269	249	324	355	301	280	310	3487
Cases Pending (Backlog)	302	328	280	317	395	367	441	434	366	344	350	308	
Avg TAT (Days) - ALL	27	42	23	39	45	59	35	50	52	41	35	41	40.75
90% Completion (Days)	58	86	58	104	118	113	82	102	90	76	62	65	84.5
Avg TAT (Days) - POS	45	61	46	57	65	65	56	68	63	56	55	56	57.75
Avg TAT (Days) - NEG	9	8	9	8	12	28	11	17	10	8	8	9	11.417

Note: 2016 Caseload increased 8.6%

MEDICAL EXAMINER / CCFRSL	2014												
Toxicology	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Cases Submitted	256	241	238	260	253	229	255	232	273	246	223	319	3025
Cases Completed	303	221	363	288	199	232	212	219	382	308	338	258	3323
Cases Pending (Backlog)	281	311	201	195	260	273	316	344	259	239	161	273	
Avg TAT (Days) - ALL	35	42	36	31	33	35	38	50	48	41	29	29	37
90% Completion (Days)	58	63	58	57	51	63	70	89	78	74	50	58	66
Avg TAT (Days) - POS	45	54	53	40	42	49	52	70	59	48	39	39	49
Avg TAT (Days) - NEG	19	15	12	7	8	16	14	13	14	10	8	7	12

Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



AGENCY IMPACTS - HOMICIDES

Statistics & Records	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Homicides 2016													
City of Cleveland	10	6	6	9	10	8	14	15	15	19	17	15	144
Suburban Cuyahoga County	1	6	4	3	3	1	1	4	1	6	2	0	32
Out of County	0	0	0	1	0	0	1	0	1	0	0	0	3
Unknown	1	1	1	0	0	1	0	0	0	1	0	1	6
TOTAL	12	13	11	13	13	10	16	19	17	26	19	16	185

MEDICAL EXAMINER / CCFRSL	2015													
Statistics & Records	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	
Homicides														
City of Cleveland	5	8	9	10	8	14	18	12	21	13	8	3	129	
Suburban Cuyahoga County	5	4	2	3	0	1	2	0	0	2	3	3	25	
Out of County	0	1	0	1	1	0	0	0	0	1	1	0	5	
Unknown	0	0	0	0	0	0	0	0	0	0	1	0	1	
TOTAL	10	13	11	14	9	15	20	12	21	16	13	6	160	

Note: Represents increase of 25 homicides (+15 in Cleveland, +7 in suburbs and -2 Out of County, +5 unknown incident origin) in 2016

	2014												
City of Cleveland	8	8	6	8	14	9	6	5	12	12	15	5	108
Suburban Cuyahoga County	3	1	3	3	0	4	1	0	1	4	0	2	22
Out of County	1	1	0	0	0	0	0	1	0	0	0	1	4
Unknown	0	0	0	1	1	0	1	0	0	0	0	1	4
TOTAL	12	10	9	12	15	13	8	6	13	16	15	9	138

Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



WHAT WE KNOW

Fentanyl Substances Date 1st Encountered

Acetylfentanyl	2/10/16
Furanylfentanyl	3/7/16
Butyrylfentanyl	3/23/16
Beta-Hydroxythiofentanyl	3/23/16
U-47700	5/9/16
4-ANPP	8/2/16
Para-Fluorofentanyl	8/29/16
Meta-Fluorofentanyl	8/29/16
Carfentanil	September 2016
Valeryl Fentanyl	10/25/16
Acrylfentanyl	11/7/16
para-Chloroisobutyryl Fentanyl	11/7/16
para-Fluorobutyryl Fentanyl	1/17/17
ortho-Fluorobutyryl Fentanyl	1/17/17
meta- Fluorobutyryl Fentanyl	1/17/17
Isobutyryl Fentanyl	2/16/17
Fluoroisobutyryl Fentanyl	2/16/17
Methoxyacetylfentanyl	4/19/17

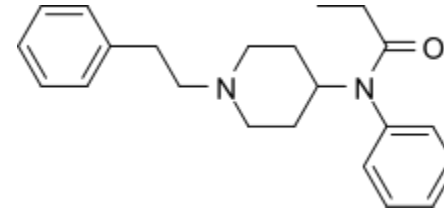


Figure 1 Fentanyl molecule

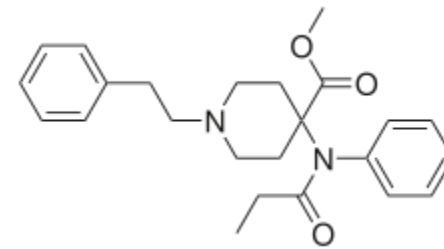


Figure 2 Carfentanil molecule

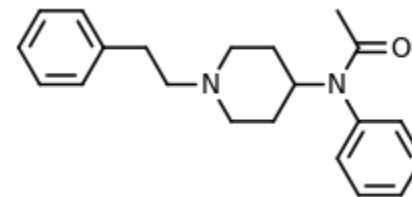
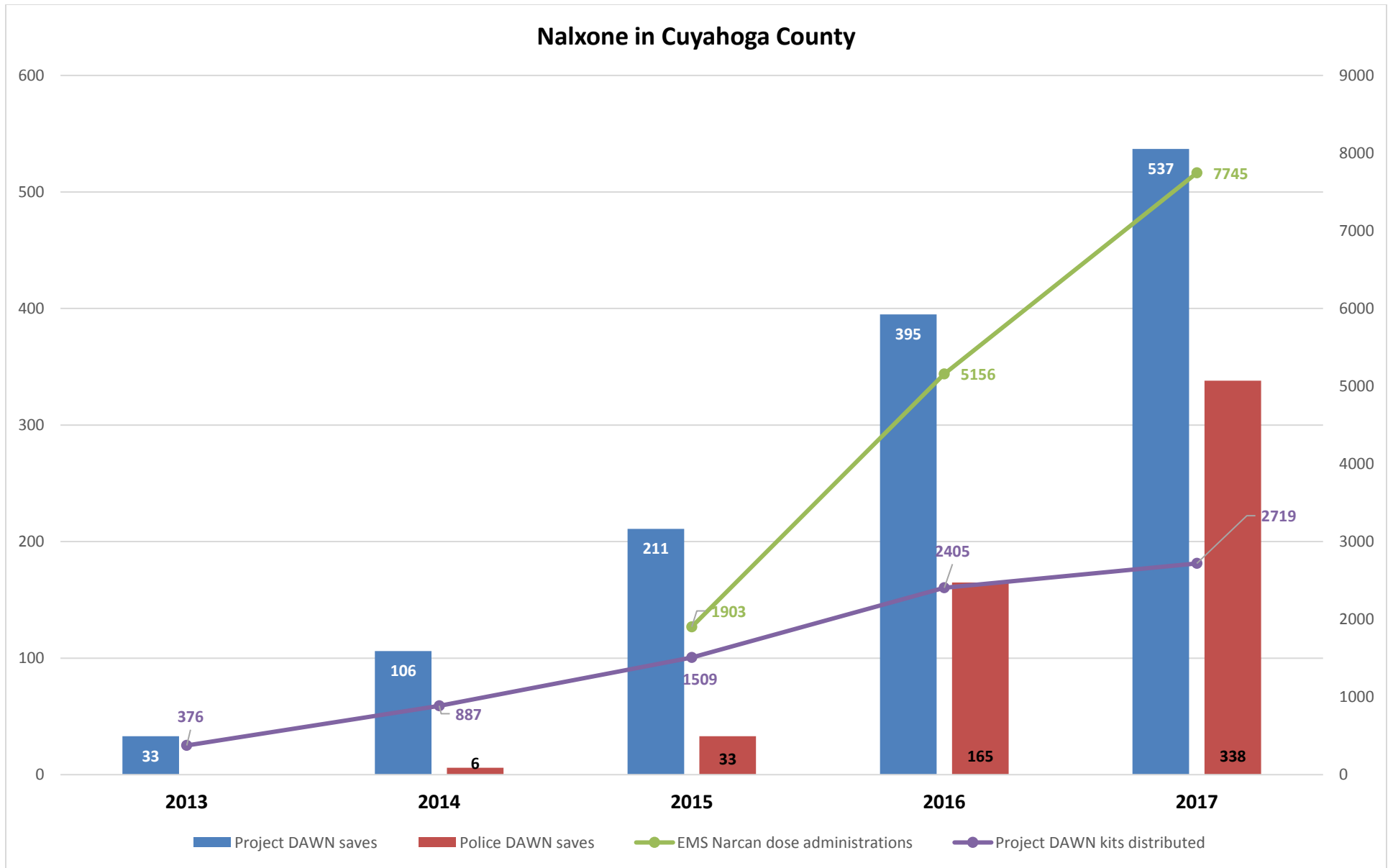


Figure 3 Acetyl fentanyl molecule

Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



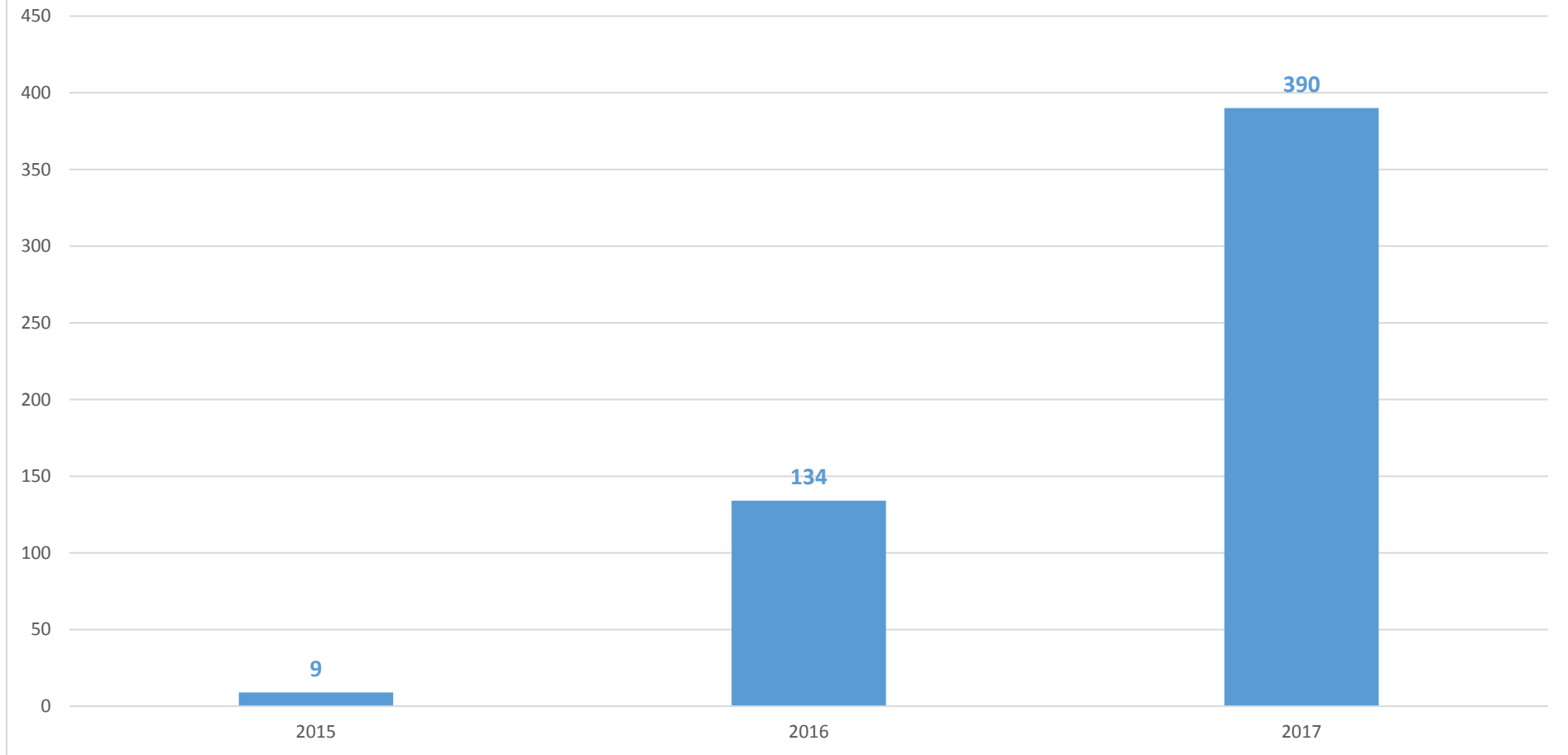
Nalxone in Cuyahoga County



Source: Cuyahoga County Medical Examiner's Office revised 6-1-18



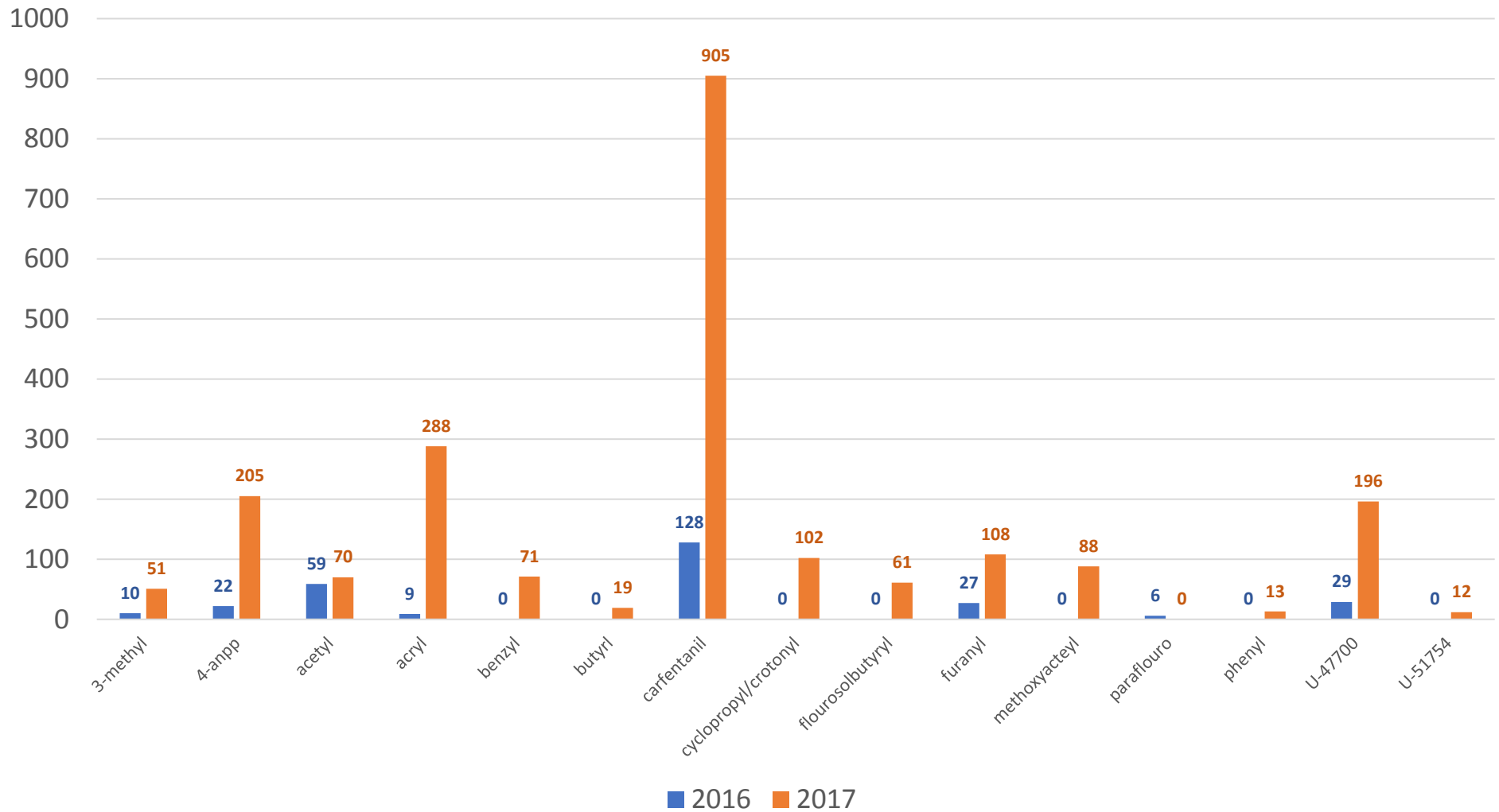
CCMEO/CCRFSL Drug Chemistry testing
Items or powder with both cocaine and fentanyl (includes fentanyl analogs)



Source: Cuyahoga County Medical
Examiner's Office revised 6-1-18



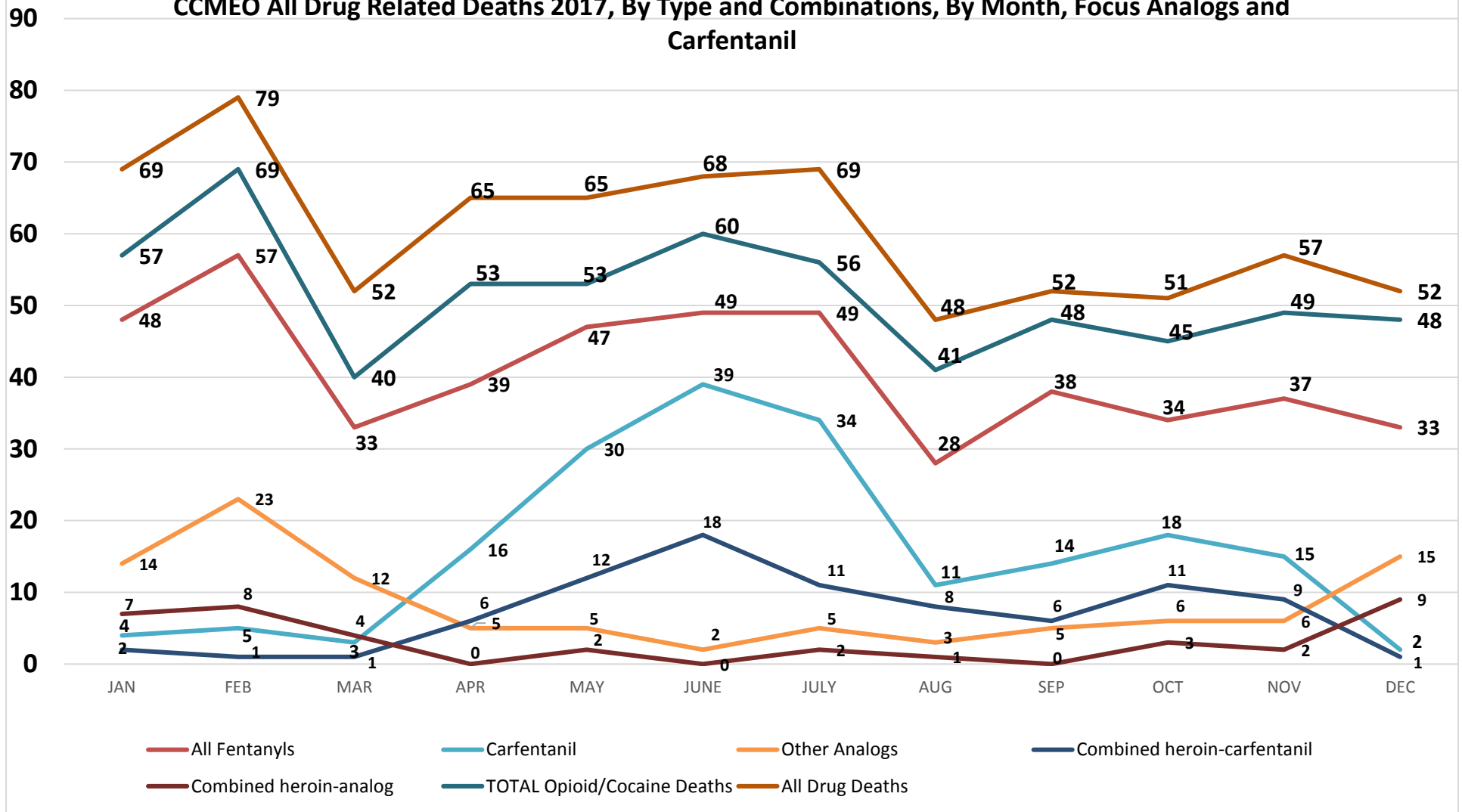
CCRFSL, Drug Chemistry Lab Positive Findings of Fentanyl Analogs 2016-2017



Source: Cuyahoga County Medical Examiner's Office revised 6-1-18

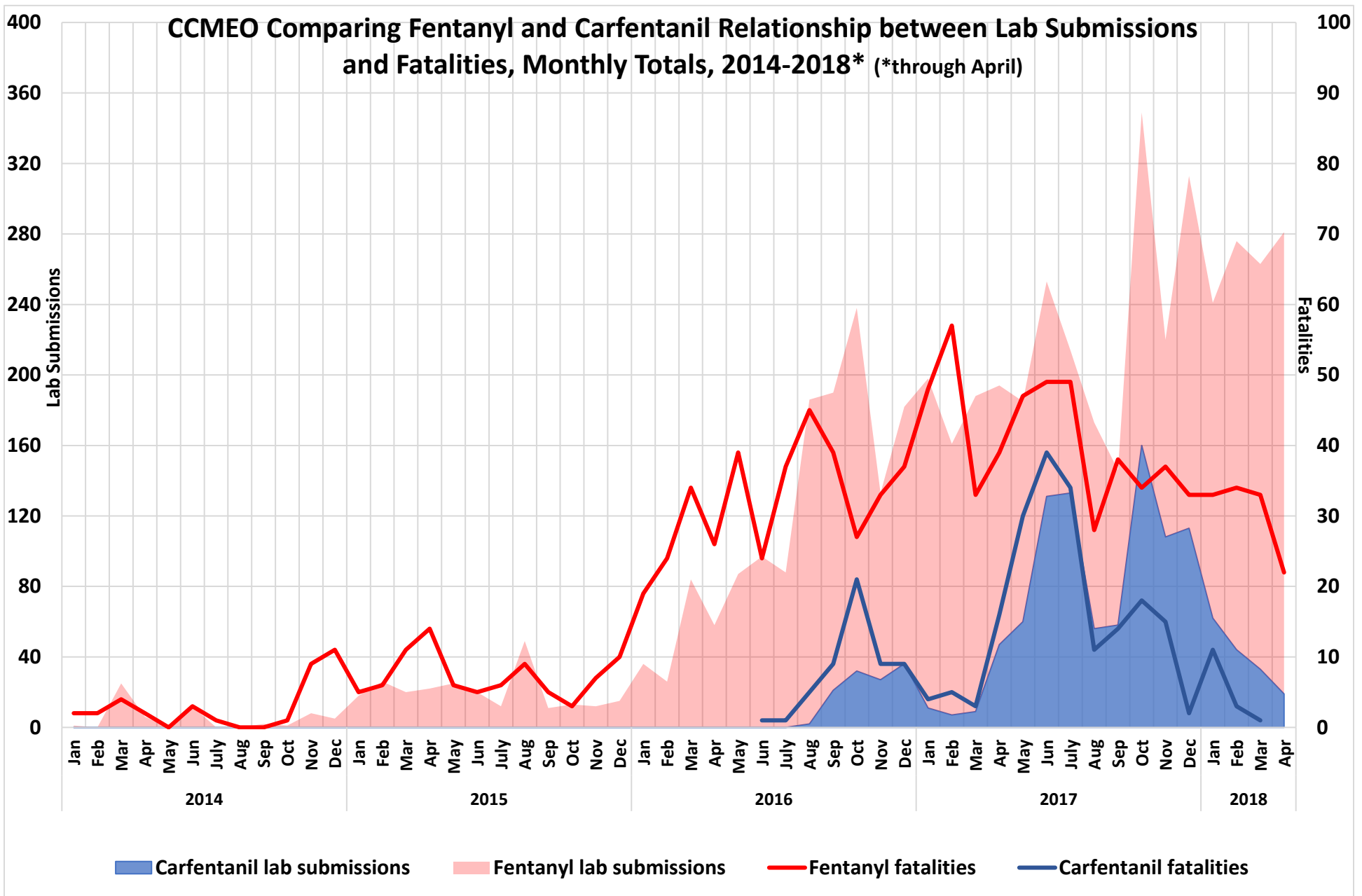


CCMEO All Drug Related Deaths 2017, By Type and Combinations, By Month, Focus Analogs and Carfentanil



Source: Cuyahoga County Medical Examiner's Office revised 6-1-18





Source: Cuyahoga County Medical Examiner's Office revised 6-1-18

