

Supplemental Online Content

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eTable 1. Descriptive Sums of Primary and Secondary Outcomes During the Baseline Period (January 2019 – December 2019) Using the Intention-to-Treat Population

Outcome	Group	Intervention Communities			Control Communities			Overall Rate Ratio ³
		Total Events ¹	Total Population ¹	Overall Raw Rate ²	Total Events ¹	Total Population ¹	Overall Raw Rate ²	
Drug Overdose Deaths	Overall	2,086	4,439,170	47.0	1,803	3,772,336	47.8	0.98
	Research Site							
	Kentucky	313 (15.0%)	617,841 (13.9%)	50.7	425 (23.6%)	815,764 (21.6%)	52.1	0.97
	Massachusetts	182 (8.7%)	359,314 (8.1%)	50.7	231 (12.8%)	356,545 (9.5%)	64.8	0.78
	New York	311 (14.9%)	1,101,497 (24.8%)	28.2	373 (20.7%)	976,069 (25.9%)	38.2	0.74
	Ohio	1,280 (61.4%)	2,360,518 (53.2%)	54.2	774 (42.9%)	1,623,958 (43.0%)	47.7	1.14
	Urban/Rural Classification							
	Urban	1,803 (86.4%)	3,793,353 (85.5%)	47.5	1,595 (88.5%)	3,242,663 (86.0%)	49.2	0.97
	Rural	283 (13.6%)	645,817 (14.5%)	43.8	208 (11.5%)	529,673 (14.0%)	39.3	1.12
	Age							
	18-34 Years	597 (28.6%)	1,334,880 (30.1%)	44.7	565 (31.3%)	1,178,210 (31.2%)	48.0	0.93
	35-54 Years	980 (47.0%)	1,353,341 (30.5%)	72.4	869 (48.2%)	1,180,392 (31.3%)	73.6	0.98
	55+ Years	509 (24.4%)	1,750,949 (39.4%)	29.1	369 (20.5%)	1,413,734 (37.5%)	26.1	1.11
	Sex							
	Male	1,431 (68.6%)	2,133,827 (48.1%)	67.1	1,218 (67.6%)	1,825,776 (48.4%)	66.7	1.01
	Female	655 (31.4%)	2,305,343 (51.9%)	28.4	585 (32.4%)	1,946,560 (51.6%)	30.1	0.95
	Missing	0 (0.0%)	NA	NA	0 (0.0%)	NA	NA	NA
Race/Ethnicity								
Non-Hispanic White	1,591 (76.3%)	3,229,233 (72.7%)	49.3	1,301 (72.2%)	2,750,369 (72.9%)	47.3	1.04	
Non-Hispanic Black	349 (16.7%)	728,037 (16.4%)	47.9	331 (18.4%)	545,357 (14.5%)	60.7	0.79	

	Non-Hispanic Other	16 (0.8%)	200,571 (4.5%)	8.0	25 (1.4%)	153,956 (4.1%)	16.2	0.49
	Hispanic	127 (6.1%)	281,329 (6.3%)	45.1	144 (8.0%)	322,654 (8.6%)	44.6	1.01
	Missing	3 (0.1%)	NA	NA	2 (0.1%)	NA	NA	NA
Overdose Deaths Involving any Opioid and any Psychostimulant (Other than Cocaine)	Overall	240	4,439,170	5.4	235	3,772,336	6.2	0.87
	Research Site							
	Kentucky	63 (26.3%)	617,841 (13.9%)	10.2	105 (44.7%)	815,764 (21.6%)	12.9	0.79
	Massachusetts	8 (3.3%)	359,314 (8.1%)	2.2	2 (0.9%)	356,545 (9.5%)	0.6	3.97
	New York	12 (5.0%)	1,101,497 (24.8%)	1.1	24 (10.2%)	976,069 (25.9%)	2.5	0.44
	Ohio	157 (65.4%)	2,360,518 (53.2%)	6.7	104 (44.3%)	1,623,958 (43.0%)	6.4	1.04
	Urban/Rural Classification							
	Urban	178 (74.2%)	3,793,353 (85.5%)	4.7	212 (90.2%)	3,242,663 (86.0%)	6.5	0.72
	Rural	62 (25.8%)	645,817 (14.5%)	9.6	23 (9.8%)	529,673 (14.0%)	4.3	2.21
Overdose Deaths Involving any Opioid and Cocaine	Overall	519	4,439,170	11.7	461	3,772,336	12.2	0.96
	Research Site							
	Kentucky	28 (5.4%)	617,841 (13.9%)	4.5	33 (7.2%)	815,764 (21.6%)	4.0	1.12
	Massachusetts	59 (11.4%)	359,314 (8.1%)	16.4	83 (18.0%)	356,545 (9.5%)	23.3	0.71
	New York	99 (19.1%)	1,101,497 (24.8%)	9.0	113 (24.5%)	976,069 (25.9%)	11.6	0.78
	Ohio	333 (64.2%)	2,360,518 (53.2%)	14.1	232 (50.3%)	1,623,958 (43.0%)	14.3	0.99
	Urban/Rural Classification							
	Urban	495 (95.4%)	3,793,353 (85.5%)	13.0	425 (92.2%)	3,242,663 (86.0%)	13.1	1.00
	Rural	24 (4.6%)	645,817 (14.5%)	3.7	36 (7.8%)	529,673 (14.0%)	6.8	0.55
Overdose Deaths Involving any Opioid and any Benzodiazepine	Overall	272	4,439,170	6.1	228	3,772,336	6.0	1.01
	Research Site							
	Kentucky	37 (13.6%)	617,841 (13.9%)	6.0	72 (31.6%)	815,764 (21.6%)	8.8	0.68
	Massachusetts	49 (18.0%)	359,314 (8.1%)	13.6	44 (19.3%)	356,545 (9.5%)	12.3	1.11

	New York	73 (26.8%)	1,101,497 (24.8%)	6.6	57 (25.0%)	976,069 (25.9%)	5.8	1.13
	Ohio	113 (41.5%)	2,360,518 (53.2%)	4.8	55 (24.1%)	1,623,958 (43.0%)	3.4	1.41
	Urban/Rural Classification							
	Urban	242 (89.0%)	3,793,353 (85.5%)	6.4	191 (83.8%)	3,242,663 (86.0%)	5.9	1.08
	Rural	30 (11.0%)	645,817 (14.5%)	4.6	37 (16.2%)	529,673 (14.0%)	7.0	0.66
¹ Sum of all events/ population in that group and trial group.								
² Raw rate calculated as 100,000 multiplied by the sum of all events in that group and trial groupwave divided by the sum of the population in that group and trial group.								
³ Overall rate ratio calculated as the overall raw rate in Intervention Communities divided by the overall raw rate in Control Communities.								

eTable 2. Descriptive Means of Primary and Secondary Outcomes During the Evaluation Period (July 1, 2021 - June 30, 2022) Using the Intention-to-Treat Population

Outcome	Group	Intervention Communities			Control Communities			Overall Rate Ratio ³
		Events ¹	Population ¹	Raw Rate ²	Events ¹	Population ¹	Raw Rate ²	
Drug Overdose Deaths	Overall	75.9 (115.6)	130,563.8 (200,088.0)	57.6 (30.3)	80.0 (161.3)	114,313.2 (201,417.3)	61.2 (24.5)	0.94
	Research Site							
	Kentucky	56.3 (49.2)	77,230.1 (80,938.9)	81.7 (25.9)	84.1 (185.3)	101,970.5 (202,045.3)	68.2 (24.2)	1.20
	Massachusetts	28.0 (24.8)	44,914.3 (26,559.3)	54.1 (29.3)	33.1 (28.0)	44,568.1 (33,628.8)	71.3 (24.5)	0.76
	New York	67.9 (84.1)	137,687.1 (140,779.9)	38.5 (17.4)	76.6 (83.6)	122,008.6 (106,012.1)	52.2 (25.3)	0.74
	Ohio	136.5 (186.0)	236,051.8 (322,922.0)	56.5 (32.8)	121.0 (251.2)	180,439.8 (325,173.2)	54.0 (22.7)	1.05
	Urban/Rural Classification							
	Urban	115.9 (142.5)	199,650.2 (248,385.2)	59.5 (22.5)	122.7 (203.8)	170,666.5 (252,614.9)	63.5 (23.3)	0.94
	Rural	25.3 (21.4)	43,054.5 (19,075.4)	55.3 (38.7)	22.1 (16.3)	37,833.8 (23,733.0)	58.1 (26.7)	0.95
	Age							
	18-34 Years	19.3 (27.5)	39,261.2 (60,440.2)	51.1 (26.0)	21.3 (45.0)	35,703.3 (69,802.6)	58.8 (28.7)	0.87
	35-54 Years	37.1 (56.9)	39,804.1 (60,321.8)	92.8 (58.4)	38.5 (78.2)	35,769.5 (65,163.6)	96.1 (40.8)	0.97
	55+ Years	19.6 (32.5)	51,498.5 (79,908.4)	37.2 (21.3)	20.1 (39.3)	42,840.4 (67,485.8)	37.5 (25.7)	0.99
	Sex							
	Male	52.1 (79.3)	62,759.6 (94,370.9)	80.5 (46.7)	55.1 (109.3)	55,326.5 (96,853.5)	87.6 (37.8)	0.92
	Female	23.8 (36.6)	67,804.2 (105,743.9)	36.5 (20.1)	24.9 (52.2)	58,986.7 (104,579.4)	36.2 (19.0)	1.01
	Race/Ethnicity							
	Non-Hispanic White	53.7 (70.5)	94,977.4 (128,763.1)	59.1 (33.3)	53.8 (102.1)	83,344.5 (135,601.7)	60.1 (26.5)	0.98
	Non-Hispanic Black	16.4 (38.7)	21,412.9 (55,089.6)	101.8 (146.2)	18.8 (52.8)	16,526.0 (45,296.8)	156.0 (228.4)	0.65
	Non-Hispanic Other	1.1 (2.5)	5,899.1 (9,757.0)	14.9 (50.9)	1.3 (3.2)	4,665.3 (11,990.9)	30.6 (110.7)	0.49
Hispanic	4.5 (9.0)	8,274.4 (13,482.1)	27.3 (39.7)	5.8 (11.2)	9,777.4 (17,743.5)	54.5 (82.9)	0.50	
Missing	0.3 (0.8)	NA	NA	0.4 (1.0)	NA	NA	NA	

Overdose Deaths Involving any Opioid and any Psychostimulant (Other than Cocaine)	Overall	11.6 (17.4)	130,563.8 (200,088.0)	11.1 (14.3)	16.2 (40.4)	114,313.2 (201,417.3)	13.0 (12.8)	0.86
	Research Site							
	Kentucky	16.3 (13.6)	77,230.1 (80,938.9)	24.0 (13.6)	33.1 (73.6)	101,970.5 (202,045.3)	26.8 (11.3)	0.90
	Massachusetts	1.1 (2.1)	44,914.3 (26,559.3)	1.4 (2.6)	1.1 (1.2)	44,568.1 (33,628.8)	2.4 (2.6)	0.56
	New York	5.1 (7.0)	137,687.1 (140,779.9)	3.1 (1.8)	10.1 (12.3)	122,008.6 (106,012.1)	9.5 (8.3)	0.33
	Ohio	21.6 (25.6)	236,051.8 (322,922.0)	14.9 (17.1)	19.8 (33.1)	180,439.8 (325,173.2)	13.1 (12.7)	1.13
	Urban/Rural Classification							
	Urban	15.1 (21.2)	199,650.2 (248,385.2)	7.9 (10.8)	23.8 (52.2)	170,666.5 (252,614.9)	11.8 (11.9)	0.67
	Rural	7.3 (10.0)	43,054.5 (19,075.4)	15.1 (17.3)	5.8 (6.9)	37,833.8 (23,733.0)	14.5 (14.2)	1.04
Overdose Deaths Involving any Opioid and Cocaine	Overall	21.9 (41.0)	130,563.8 (200,088.0)	11.5 (10.8)	23.8 (56.5)	114,313.2 (201,417.3)	14.9 (16.1)	0.77
	Research Site							
	Kentucky	7.1 (11.5)	77,230.1 (80,938.9)	6.2 (5.0)	12.0 (30.7)	101,970.5 (202,045.3)	5.3 (4.8)	1.17
	Massachusetts	11.6 (14.3)	44,914.3 (26,559.3)	19.4 (15.9)	13.5 (12.9)	44,568.1 (33,628.8)	28.0 (21.0)	0.69
	New York	26.5 (39.4)	137,687.1 (140,779.9)	11.8 (9.9)	29.5 (50.3)	122,008.6 (106,012.1)	17.8 (16.6)	0.66
	Ohio	38.4 (64.0)	236,051.8 (322,922.0)	9.4 (7.0)	38.3 (95.2)	180,439.8 (325,173.2)	9.2 (9.0)	1.02
	Urban/Rural Classification							
	Urban	37.3 (50.2)	199,650.2 (248,385.2)	16.4 (11.8)	38.1 (71.7)	170,666.5 (252,614.9)	19.4 (18.5)	0.85
	Rural	2.5 (2.3)	43,054.5 (19,075.4)	5.4 (4.6)	4.4 (5.2)	37,833.8 (23,733.0)	8.8 (9.8)	0.61
Overdose Deaths Involving any Opioid and any Benzodiazepine	Overall	8.6 (13.9)	130,563.8 (200,088.0)	6.9 (5.6)	8.2 (15.6)	114,313.2 (201,417.3)	6.9 (6.0)	1.01
	Research Site							
	Kentucky	5.6 (4.1)	77,230.1 (80,938.9)	9.6 (7.3)	11.3 (24.2)	101,970.5 (202,045.3)	10.1 (8.4)	0.95
	Massachusetts	5.5 (5.7)	44,914.3 (26,559.3)	9.9 (5.6)	3.0 (2.6)	44,568.1 (33,628.8)	7.8 (6.0)	1.28
	New York	10.8 (14.4)	137,687.1 (140,779.9)	5.4 (3.7)	8.9 (11.9)	122,008.6 (106,012.1)	6.1 (4.3)	0.89

	Ohio	11.6 (21.8)	236,051.8 (322,922.0)	3.7 (3.3)	9.7 (16.9)	180,439.8 (325,173.2)	4.0 (3.7)	0.92
	Urban/Rural Classification							
	Urban	13.7 (17.0)	199,650.2 (248,385.2)	8.0 (5.8)	12.2 (19.7)	170,666.5 (252,614.9)	6.6 (5.1)	1.21
	Rural	2.1 (1.8)	43,054.5 (19,075.4)	5.6 (5.3)	2.9 (2.8)	37,833.8 (23,733.0)	7.3 (7.3)	0.77
¹ Mean (Standard Deviation) of the community-level events or population in that group and trial group.								
² Mean (Standard Deviation) of the community-level rates expressed per 100,000 residents 18 years of age or older in that group and trial group.								
³ Overall rate ratio calculated as the raw rate in Intervention Communities divided by the raw rate in Control Communities.								

eTable 3. Descriptive Sums of Tertiary Outcomes During the Evaluation Period (July 1, 2021 - June 30, 2022) Using the Intention-to-Treat Population

Outcome	Group	Intervention Communities			Control Communities			Overall Rate Ratio ³
		Total Events ¹	Total Population ¹	Overall Raw Rate ²	Total Events ¹	Total Population ¹	Overall Raw Rate ²	
Opioid Overdose Deaths Involving Heroin	Overall	93	4,439,170	2.1	125	3,772,336	3.3	0.63
	Research Site							
	Kentucky	10 (10.8%)	617,841 (13.9%)	1.6	19 (15.2%)	815,764 (21.6%)	2.3	0.69
	Massachusetts	13 (14.0%)	359,314 (8.1%)	3.6	43 (34.4%)	356,545 (9.5%)	12.1	0.30
	New York	28 (30.1%)	1,101,497 (24.8%)	2.5	54 (43.2%)	976,069 (25.9%)	5.5	0.46
	Ohio	42 (45.2%)	2,360,518 (53.2%)	1.8	9 (7.2%)	1,623,958 (43.0%)	0.6	3.21
	Urban/Rural Classification							
	Urban	75 (80.6%)	3,793,353 (85.5%)	2.0	94 (75.2%)	3,242,663 (86.0%)	2.9	0.68
Rural	18 (19.4%)	645,817 (14.5%)	2.8	31 (24.8%)	529,673 (14.0%)	5.9	0.48	
Overdose Deaths Involving Synthetic Opioids Except Methadone	Overall	2,075	4,439,170	46.7	2,165	3,772,336	57.4	0.81
	Research Site							
	Kentucky	350 (16.9%)	617,841 (13.9%)	56.6	571 (26.4%)	815,764 (21.6%)	70.0	0.81
	Massachusetts	193 (9.3%)	359,314 (8.1%)	53.7	232 (10.7%)	356,545 (9.5%)	65.1	0.83
	New York	433 (20.9%)	1,101,497 (24.8%)	39.3	507 (23.4%)	976,069 (25.9%)	51.9	0.76
	Ohio	1,099 (53.0%)	2,360,518 (53.2%)	46.6	855 (39.5%)	1,623,958 (43.0%)	52.6	0.88
	Urban/Rural Classification							
	Urban	1,799 (86.7%)	3,793,353 (85.5%)	47.4	1,912 (88.3%)	3,242,663 (86.0%)	59.0	0.80
Rural	276 (13.3%)	645,817 (14.5%)	42.7	253 (11.7%)	529,673 (14.0%)	47.8	0.89	
Overdose Deaths Involving Any	Overall	1,059	4,439,170	23.9	1,218	3,772,336	32.3	0.74
	Research Site							

Opioid and Any Psychostimulant (Including Cocaine)	Kentucky	176 (16.6%)	617,841 (13.9%)	28.5	324 (26.6%)	815,764 (21.6%)	39.7	0.72
	Massachusetts	97 (9.2%)	359,314 (8.1%)	27.0	114 (9.4%)	356,545 (9.5%)	32.0	0.84
	New York	237 (22.4%)	1,101,497 (24.8%)	21.5	301 (24.7%)	976,069 (25.9%)	30.8	0.70
	Ohio	549 (51.8%)	2,360,518 (53.2%)	23.3	479 (39.3%)	1,623,958 (43.0%)	29.5	0.79
	Urban/Rural Classification							
	Urban	917 (86.6%)	3,793,353 (85.5%)	24.2	1,085 (89.1%)	3,242,663 (86.0%)	33.5	0.72
	Rural	142 (13.4%)	645,817 (14.5%)	22.0	133 (10.9%)	529,673 (14.0%)	25.1	0.88
Overdose Deaths Involving Any Psychostimulant (Other than Cocaine)	Overall	482	4,439,170	10.9	638	3,772,336	16.9	0.64
	Research Site							
	Kentucky	155 (32.2%)	617,841 (13.9%)	25.1	303 (47.5%)	815,764 (21.6%)	37.1	0.68
	Massachusetts	14 (2.9%)	359,314 (8.1%)	3.9	12 (1.9%)	356,545 (9.5%)	3.4	1.16
	New York	52 (10.8%)	1,101,497 (24.8%)	4.7	97 (15.2%)	976,069 (25.9%)	9.9	0.48
	Ohio	261 (54.1%)	2,360,518 (53.2%)	11.1	226 (35.4%)	1,623,958 (43.0%)	13.9	0.79
	Urban/Rural Classification							
	Urban	347 (72.0%)	3,793,353 (85.5%)	9.1	545 (85.4%)	3,242,663 (86.0%)	16.8	0.54
Rural	135 (28.0%)	645,817 (14.5%)	20.9	93 (14.6%)	529,673 (14.0%)	17.6	1.19	
Overdose Deaths Involving Cocaine	Overall	891	4,439,170	20.1	924	3,772,336	24.5	0.82
	Research Site							
	Kentucky	65 (7.3%)	617,841 (13.9%)	10.5	105 (11.4%)	815,764 (21.6%)	12.9	0.82
	Massachusetts	105 (11.8%)	359,314 (8.1%)	29.2	122 (13.2%)	356,545 (9.5%)	34.2	0.85
	New York	250 (28.1%)	1,101,497 (24.8%)	22.7	267 (28.9%)	976,069 (25.9%)	27.4	0.83
	Ohio	471 (52.9%)	2,360,518 (53.2%)	20.0	430 (46.5%)	1,623,958 (43.0%)	26.5	0.75

	Urban/Rural Classification							
	Urban	845 (94.8%)	3,793,353 (85.5%)	22.3	853 (92.3%)	3,242,663 (86.0%)	26.3	0.85
	Rural	46 (5.2%)	645,817 (14.5%)	7.1	71 (7.7%)	529,673 (14.0%)	13.4	0.53
Overdose Deaths Involving Any Psychostimulant (Including Cocaine)	Overall	1,277	4,439,170	28.8	1,449	3,772,336	38.4	0.75
	Research Site							
	Kentucky	207 (16.2%)	617,841 (13.9%)	33.5	370 (25.5%)	815,764 (21.6%)	45.4	0.74
	Massachusetts	113 (8.8%)	359,314 (8.1%)	31.4	131 (9.0%)	356,545 (9.5%)	36.7	0.86
	New York	284 (22.2%)	1,101,497 (24.8%)	25.8	346 (23.9%)	976,069 (25.9%)	35.4	0.73
	Ohio	673 (52.7%)	2,360,518 (53.2%)	28.5	602 (41.5%)	1,623,958 (43.0%)	37.1	0.77
	Urban/Rural Classification							
	Urban	1,102 (86.3%)	3,793,353 (85.5%)	29.1	1,294 (89.3%)	3,242,663 (86.0%)	39.9	0.73
	Rural	175 (13.7%)	645,817 (14.5%)	27.1	155 (10.7%)	529,673 (14.0%)	29.3	0.93
Overdose Deaths Involving Benzodiazepine	Overall	317	4,439,170	7.1	304	3,772,336	8.1	0.89
	Research Site							
	Kentucky	52 (16.4%)	617,841 (13.9%)	8.4	100 (32.9%)	815,764 (21.6%)	12.3	0.69
	Massachusetts	46 (14.5%)	359,314 (8.1%)	12.8	28 (9.2%)	356,545 (9.5%)	7.9	1.63
	New York	92 (29.0%)	1,101,497 (24.8%)	8.4	76 (25.0%)	976,069 (25.9%)	7.8	1.07
	Ohio	127 (40.1%)	2,360,518 (53.2%)	5.4	100 (32.9%)	1,623,958 (43.0%)	6.2	0.87
	Urban/Rural Classification							
	Urban	282 (89.0%)	3,793,353 (85.5%)	7.4	257 (84.5%)	3,242,663 (86.0%)	7.9	0.94
	Rural	35 (11.0%)	645,817 (14.5%)	5.4	47 (15.5%)	529,673 (14.0%)	8.9	0.61
¹ Sum of all events/ population in that group and trial group.								

²Raw rate calculated as 100,000 multiplied by the sum of all events in that group and trial groupwave divided by the sum of the population in that group and trial group.

³Overall rate ratio calculated as the overall raw rate in Intervention Communities divided by the overall raw rate in Control Communities.

eTable 4. Calculation of Proportions of Opioid Deaths Involving Specific Drugs

First Outcome	Second Outcome	Intervention Communities			Control Communities		
		Total Events in First Outcome ¹	Total Events in Second Outcome ¹	Proportion ²	Total Events in First Outcome ¹	Total Events in Second Outcome ¹	Proportion ²
Number of Opioid Overdose Deaths Involving Synthetic Opioids Except Methadone	Number of Opioid Overdose Deaths ³	2,075	2,220	0.93	2,165	2,297	0.94
Number of Opioid Overdose Deaths Involving Heroin	Number of Opioid Overdose Deaths ³	93	2,220	0.04	125	2,297	0.05
Number of Opioid Overdose Deaths Involving Any Opioid and Any Psychostimulant (Including Cocaine)	Number of Opioid Overdose Deaths ³	1,059	2,220	0.48	1,218	2,297	0.53
Number of Opioid Overdose Deaths Involving Any Opioid and Any Psychostimulant (Including Cocaine)	Number of Drug Overdose Deaths Involving Any Psychostimulant (Including Cocaine)	1,059	1,277	0.83	1,218	1,449	0.84
¹ Sum of events in that trial group.							
² Proportion calculated as the total events in first outcome divided by the total events in second outcome.							
³ Samet et al. ²¹							

eTable 5. Adjusted Rate of Each Outcome Within Trial Groups and Adjusted Relative Rate of Each Outcome Between Intervention to Control Communities During the Evaluation Period Using the Per-Protocol Population¹

Outcome	Intervention Communities	Control Communities	Adjusted Rate Ratio (95% CI) ³	P-value
	Adjusted Rate (95% CI) ²	Adjusted Rate (95% CI) ²		
Drug Overdose Deaths ⁴	56.21 (50.20, 62.94)	61.00 (54.14, 68.72)	0.92 (0.79, 1.08)	0.294
Overdose Deaths Involving any Opioid and any Psychostimulant (Other than Cocaine) ⁵	6.60 (5.06, 8.60)	10.54 (7.75, 14.33)	0.63 (0.43, 0.90)	0.013
Overdose Deaths Involving any Opioid and Cocaine ⁶	10.40 (8.38, 12.92)	10.97 (8.31, 14.50)	0.95 (0.69, 1.30)	0.739
Overdose Deaths Involving any Opioid and any Benzodiazepine ⁷	6.62 (5.27, 8.31)	6.58 (4.94, 8.77)	1.01 (0.74, 1.36)	0.971
¹ Results obtained from a negative binomial model adjusting for research site (KY, MA, NY, OH), urban/rural classification, baseline opioid overdose death rate, and baseline rate of the outcome. The natural log of the observed community population size of individuals 18 years of age or older measured from the 2020 Bridged-Race Population Estimates or the 2017-2021 American Community Survey 5-Year Averages is used as an offset.				
² Model estimated event rate expressed as per 100,000 residents aged 18 and older.				
³ Adjusted relative rate of outcome during the evaluation period between Intervention and Control communities.				
⁴ Estimated dispersion parameter, k: 0.0439; 95%CI: (0.0217, 0.0888)				
⁵ Estimated dispersion parameter, k: 0.2136; 95%CI: (0.1094, 0.4170)				
⁶ Estimated dispersion parameter, k: 0.1454; 95%CI: (0.0762, 0.2774)				
⁷ Estimated dispersion parameter, k: 0.0847; 95%CI: (0.0261, 0.2747)				

eTable 6. Sensitivity Analyses

Sensitivity Post-Hoc	Outcome	Distribution	Weight/offset	Covariates	Subgroup	Adjusted rate in Intervention Communities	Adjusted rate in Control Communities	Adjusted rate ratio between Intervention and Control Communities	P-Value
Primary Outcome									
Assess Impact of Community Size	Drug overdose deaths during the comparison period	Poisson	Offset: Log of population size	Trial group, research site, urban/rural, baseline rate of M1, baseline rate of outcome	Overall	55.14 (49.39, 61.56)	64.93 (57.87, 72.87)	0.85 (0.72, 1.00)	0.045
Assess Impact of Assuming Common Effect of Urban/Rural Status Across Research Sites	Drug overdose deaths during the comparison period	Negative binomial	Offset: Log of population size	Trial group, research site, urban/rural, baseline rate of M1, baseline rate of outcome, research site*urban/rural	Overall	55.15 (49.13, 61.90)	62.21 (54.90, 70.48)	0.89 (0.76, 1.04)	0.127
Secondary Outcomes									
Assess Impact of Community Size	Overdose deaths involving any opioid and any psychostimulant (other than cocaine) during the comparison period	Poisson	Offset: Log of population size	Trial group, research site, urban/rural, baseline rate of M1, baseline rate of outcome	Overall	7.19 (5.76, 8.98)	10.57 (8.14, 13.73)	0.68 (0.55, 0.85)	<0.001
Assess Impact of Community Size	Overdose deaths involving any opioid and cocaine during the comparison period	Poisson	Offset: Log of population size	Trial group, research site, urban/rural, baseline rate of M1, baseline rate of outcome	Overall	11.01 (8.51, 14.23)	12.42 (9.46, 16.31)	0.89 (0.63, 1.25)	0.482

Assess Impact of Community Size	Overdose deaths involving any opioid and any benzodiazepine during the comparison period	Poisson	Offset: Log of population size	Trial group, research site, urban/rural, baseline rate of M1, baseline rate of outcome	Overall	6.56 (5.17, 8.33)	7.00 (5.37, 9.14)	0.94 (0.72, 1.22)	0.618
Post-Hoc						Adjusted rate ratio between comparison and baseline periods in Intervention Communities (95% CI)	Adjusted rate ratio between comparison and baseline periods in Control Communities (95% CI)	Ratio between Intervention and Control Communities (95% CI)	P-value from interaction
Comparing the Change in Drug Overdose Death Rate Between the Baseline and Comparison Periods Between Trial Groups	Drug overdose deaths	Negative binomial	Offset: Log of population size	Trial group, research site, urban/rural, time, trial group*time	Overall	1.30 (1.15, 1.47)	1.40 (1.26, 1.57)	0.93 (0.79, 1.09)	0.372
Comparing the Change in Drug Overdose Death Rate Between the Baseline and Comparison Periods Between Trial Groups	Drug overdose deaths	Poisson	Offset: Log of population size	Trial group, research site, urban/rural, time, trial group*time	Overall	1.24 (1.08, 1.42)	1.46 (1.33, 1.61)	0.85 (0.72, 1.00)	0.046