Supplemental Table 1. Odds ratios and 95% confidence intervals from our secondary model of the association between covariates of interest and the odds of naloxone co-prescribing using logistic regression, with Huber-White adjusted robust standard errors.

	Odds ratio	95% CI	p-value*
Sex = male			
Pre-alert implementation	0.84	(0.67, 1.05)	0.12
Post-alert implementation	1.24	(0.96, 1.61)	0.10
Race pre-alert implementation (reference: white)			
Black	0.67	(0.41, 1.10)	0.12
Other	2.20	(0.81, 5.93)	0.12
Unknown	2.49	(1.09, 5.69)	0.03
Race post-alert implementation (reference: white)			
Black	1.64	(1.01, 2.68)	0.05
Other	0.47	(0.17, 1.36)	0.16
Unknown	0.50	(0.21, 1.16)	0.10
Ethnicity = Hispanic			
Pre-alert implementation	0.33	(0.09, 1.17)	0.09
Post-alert implementation	2.63	(0.74, 9.42)	0.14
Insurance (reference: public)			
None	1.80	(1.32, 2.46)	<0.001
Private	0.79	(0.71, 0.87)	<0.001
Both	0.94	(0.75, 1.18)	0.62
Ever had an oncology visit	0.88	(0.78, 0.99)	0.03
Risk criteria			
MEDD >= 90	1.28	(1.07, 1.53)	0.006
OUD and opioid or benzodiazepine ordered	1.91	(1.18, 3.08)	0.008

	Odds ratio	95% CI	p-value*
Opioid and benzodiazepine ordered together (pre-alert implementation)	5.37	(1.07, 26.84)	0.04
Opioid and benzodiazepine ordered together (post-alert implementation)	0.19	(0.04, 0.99)	0.05
Active benzodiazepine and history of opioid overdose or opioid ordered (pre-alert implementation)	1.23	(0.80, 1.90)	0.34
Active benzodiazepine and history of opioid overdose or opioid ordered (post-alert implementation)	2.05	(1.32, 3.18)	0.001
Active opioid and benzodiazepine ordered (pre-alert implementation)	0.45	(0.11, 1.91)	0.28
Active opioid and benzodiazepine ordered (post-alert implementation)	2.95	(0.68, 12.9)	0.15
Provider type (pre-alert implementation, reference group: attending provider)			
Fellow	1.17	(0.62, 2.22)	0.63
Nurse	0.09	(0.03, 0.23)	<0.001
Nurse Practitioner/Physician Assistant	1.47	(0.78, 2.76)	0.23
Pharmacist	0.57	(0.09, 3.6)	0.55
Resident Physician	1.02	(0.49, 2.11)	0.95
Provider type (post-alert implementation, reference group: attending provider)			
Fellow	1.40	(0.65, 3.04)	0.39
Nurse	2.09	(0.69, 6.34)	0.19
Nurse Practitioner/Physician Assistant	0.65	(0.34, 1.26)	0.20
Pharmacist	0.29	(0.05, 1.63)	0.16
Resident Physician	1.80	(0.84, 3.87)	0.13

	Odds ratio	95% CI	p-value*
Department (pre-alert implementation, reference group: internal medicine)			
Behavioral health	0.74	(0.3, 1.82)	0.51
Cardiology	1.43	(0.5, 4.13)	0.51
Dermatology	0.00	(0.00, 0.00)	<0.001
Emergency	0.83	(0.21, 3.18)	0.78
Gastroenterology	0.00	(0.00, 0.00)	<0.001
Geriatrics	0.00	(0.00, 0.00)	<0.001
Infectious Disease	7.38	(2.61, 20.86)	<0.001
Interventional Pain	9.81	(4.58, 20.99)	<0.001
Nephrology	0.00	(0.00, 0.00)	<0.001
Neurology	0.97	(0.35, 2.72)	0.95
Neurosurgery	1.55	(0.58, 4.15)	0.39
OB/GYN	5.44	(1.9, 15.56)	0.002
Oncology	0.29	(0.13, 0.65)	0.003
Ophthalmology	0.00	(0.00, 0.00)	<0.001
Orthopedics	0.24	(0.08, 0.72)	0.01
Other	0.67	(0.2, 2.28)	0.52
Otolaryngology	0.00	(0.00, 0.00)	<0.001
PM&R	0.00	(0.00, 0.00)	<0.001
Palliative care	0.80	(0.16, 3.95)	0.79
Pediatrics	0.44	(0.06, 3.5)	0.44
Primary Care	0.49	(0.1, 2.41)	0.38
Rheumatology	0.55	(0.13, 2.36)	0.42
Surgery	0.59	(0.26, 1.35)	0.21
Transplant	0.38	(0.05, 2.67)	0.33
Trauma/burn	0.38	(0.08, 1.8)	0.22
Urology	0.28	(0.03, 2.37)	0.24
Walk-in Clinic	0.00	(0.00, 0.00)	<0.001

	Odds ratio	95% CI	p-value*
Department (post-alert implementation, reference group: internal medicine)			
Behavioral health	3.50	(1.25, 9.77)	0.02
Cardiology	1.15	(0.38, 3.42)	0.80
Dermatology	776.09	(100.64, 5984.76)	<0.001
Emergency	4.04	(0.9, 18.07)	0.07
Gastroenterology	1,911.50	(587.77, 6216.44)	<0.001
Geriatrics	1,910.06	(301.04, 12119.03)	<0.001
Infectious Disease	0.12	(0.04, 0.35)	<0.001
Interventional Pain	0.47	(0.22, 1.03)	0.06
Nephrology	4,463.11	(941.17, 21164.43)	<0.001
Neurology	2.03	(0.67, 6.19)	0.21
Neurosurgery	4.01	(1.11, 14.53)	0.03
OB/GYN	0.51	(0.19, 1.41)	0.19
Oncology	2.59	(1.14, 5.88)	0.02
Ophthalmology	741.45	(92.32, 5954.72)	<0.001
Orthopedics	9.35	(3.14, 27.89)	<0.001
Other	3.53	(1, 12.42)	0.05
Otolaryngology	10,775.10	(3964.7, 29284.09)	<0.001
PM&R	1,428.11	(145, 14065.79)	<0.001
Palliative care	2.13	(0.39, 11.69)	0.38
Pediatrics	1.54	(0.18, 12.91)	0.69
Primary Care	0.88	(0.18, 4.27)	0.87
Rheumatology	0.68	(0.15, 3.14)	0.62
Surgery	3.09	(1.29, 7.4)	0.01
Transplant	1.61	(0.3, 8.54)	0.58
Trauma/burn	8.70	(1.74, 43.42)	0.008
Urology	7.61	(0.89, 64.91)	0.06
Walk-in Clinic	1,231.41	(257.62, 5886.03)	<0.001

MEDD = Morphine equivalent daily dose; OUD = Opioid Use Disorder; OB/GYN = Obstetrics & Gynecology, PM&R = Physical medicine and rehabilitation

*p-values using the Wald test

Footnote: Our outcome of interest was whether naloxone was co-prescribed when an opioid was prescribed. Considered covariates related to patient demographics and medical history as well as provider type and department. Interactions between all covariates and the time period indicators of "post-education efforts" (after October 27, 2019) and "post-alert implementation" (after January 19, 2020) were considered and included if the term had an overall p-value less than 0.2 No interactions with post-education were significant, but several with post-alert implementation were and are detailed in the above table. Reference levels for factor variables are included within the table. For covariates with no interaction, the odds ratio applies across all time and compares to the reference level. For covariates with an interaction, the pre-alert implementation odds ratio applies to the time period of January 6, 2019 to January 18, 2020, while the post-alert implementation odds ratio represents the multiplicative change in odds from the baseline time period. To get the overall odds post-alert implementation for a factor level compared to the reference group, the pre- and post-alert odds ratios can be multiplied together.