

Characteristics and predictors of naloxone recipients, refillers, and reversals in a community-based naloxone distribution program

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CONFERENCE ON OVERCOMING HEALTH DISPARITIES IN THE BAY AREA: FOCUS ON HIV AND HCV

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BACKGROUND

- Drug overdose is the leading cause of injury death in U.S. adults¹
- Persons who inject drugs (PWID) are at increased risk for HIV and HCV²
- Overdoses are more common among HIV-positive substance users³



¹Centers for Disease Control and Prevention. National Vital Statistics System mortality data. (2015) Available from URL: <http://www.cdc.gov/nchs/deaths.htm>.

²Coffin et al. Drug overdose, lay naloxone, and HIV risk behaviors among persons who inject drugs. XIX International AIDS Conference; July 23, 2012, 2012. Abstract#MOPE218; Washington, DC.

³Green TC, McGowan SK, Yokell MA, Pouget ER, Rich JD. HIV infection and risk of overdose: a systematic review and meta-analysis. *Aids*. 2012;26(4):403-417.

BACKGROUND

- Naloxone (Narcan) is a medication that reverses the effects of opioids
- Community naloxone distribution is a key strategy in reducing opioid overdose mortality¹
- The DOPE Project has distributed naloxone to non-medical persons since 2003



METHODS

- Secondary analysis of 2010-2013 DOPE Project data - initial registration and refill reports
- Participant (N=2500) and reversal (N=702) characteristics were assessed
- Predictors of participant refills and reversals were examined using multivariable logistic regression.



RESULTS

2500 Total Participants Registered 2010-2013

61% Male

59% White, 20% African American

56% Homeless/unstably housed

32% At least 1 prior overdose

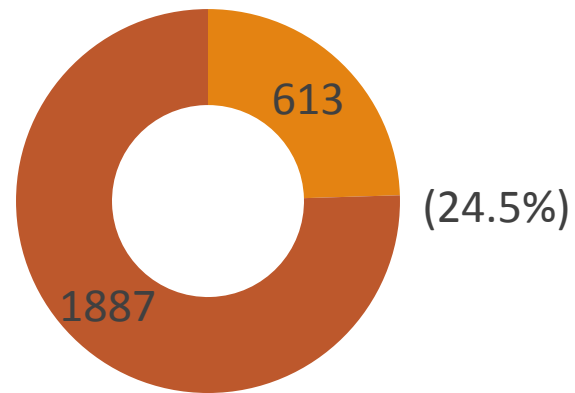
74% Substance users

66% Opioid users

RESULTS

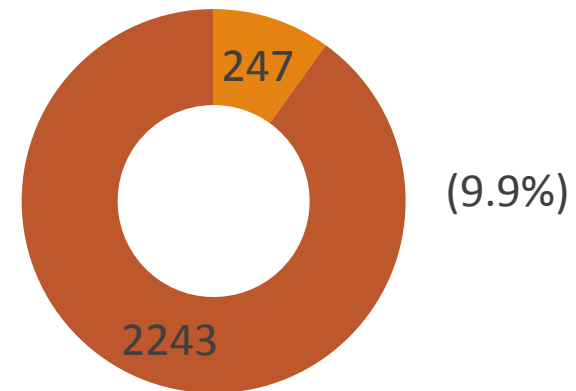
2500 Total Participants Registered 2010-2013

Naloxone Refills



- Obtained a naloxone refill
- Did not obtain a naloxone refill

Overdose Reversals



- Attempted an overdose reversal
- Did not attempt an overdose reversal

RESULTS

702 Reversals Reported 2010-2013

75% administered on companions

90% involved heroin

70% at private residence or SRO

RESULTS

Refills

	AOR	95% CI
Race/Ethnicity		
White	-	-
African American	0.60*	0.44-0.83
Latino	0.65*	0.43-1.00
Mixed/Other Race	1.41*	1.01-1.96
Witnessed Overdose	2.06*	1.58-2.68
Use Heroin	2.05*	1.63-2.57
Use Other Opioids	1.30*	1.03-1.64
Use Methamphetamine	1.67*	1.35-2.07

Reversals

	AOR	95% CI
Race/Ethnicity		
White	-	-
African American	0.52*	0.32-0.84
Latino	0.56	0.30-1.05
Mixed/Other Race	1.00	0.63-1.59
Witnessed Overdose	2.59*	1.69-3.96
Use Heroin	2.44*	1.78-3.35
Use Methamphetamine	1.64*	1.22-2.20

*P < 0.05

CONCLUSIONS

- Community naloxone distribution programs can result in high numbers of opioid overdose reversals by nonmedical persons
- Participants who had witnessed an overdose or use opioids or methamphetamine were more likely to obtain refills and report reversals
- Participants of color were less likely to obtain refills and report reversals
- Community distribution of naloxone is an important strategy in reducing mortality among substance users infected with and at risk for infection with HIV and HCV

THANK YOU

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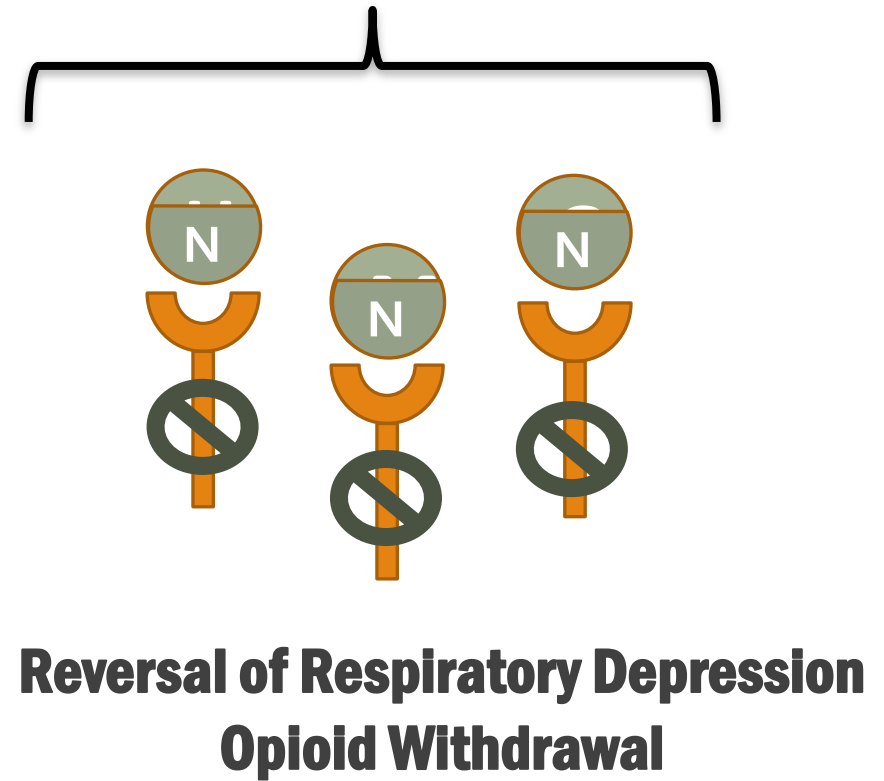


NALOXONE

opioid receptors activated



opioids broken down and excreted



NALOXONE FOR LAY PERSONS

- Provide naloxone to anyone who may witness or experience opioid overdose
- Rationale
 - Overdose usually witnessed
 - Death takes a while
 - EMS not routinely accessed
 - Naloxone very safe and very effective
 - Prompt reversal with naloxone may avert complications
 - Possible behavior change

THE DOPE PROJECT

- Community-based opioid overdose prevention program operating in San Francisco since 2003
- Conducts overdose prevention & response trainings
- Dispenses naloxone
- **4808** unique participants and **1265** reported reversals since 2003

RESULTS – ZERO INFLATED POISSON

Refills

	IRR	95% CI
Race/Ethnicity		
White	-	-
African American	0.97	0.75-1.26
Latino	1.32*	1.04-1.67
Mixed/Other Race	0.83	0.68-1.01
Homeless	1.25*	1.07-1.46
Experienced Overdose	1.20*	1.05-1.38
Use Heroin	1.36*	1.17-1.60
Use Methadone	0.82*	0.71-0.94
Use Methamphetamine	1.85*	1.59-2.15

Reversals

	IRR	95% CI
Race/Ethnicity		
White	-	-
African American	1.95*	1.19-3.20
Latino	1.55	0.96-2.50
Mixed/Other Race	1.47	0.99-2.20
Use Heroin	1.64*	1.14-2.37
Use Methamphetamine	1.59*	1.17-2.15

*P < 0.05