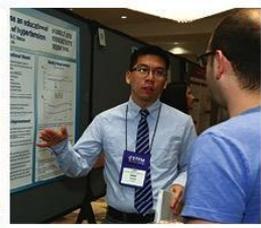


STFM Conference on Medical Student Education



DREXEL UNIVERSITY COLLEGE OF MEDICINE'S NALOXONE OUTREACH PROGRAM (NOP)



DREXEL UNIVERSITY
College of
Medicine



Presenters

Annette Gadegbeku, MD

Camille Singh MS2

Kristina Thompsen MS2, Christopher Fong MS2

DUCOM NOP Team

Steven Rosenzweig, MD, Elissa Goldberg, MSS, LSW

Caitlin Croke, MA

Kathleen Nelson MS2, Sean Welch MS2

Alexa Profozich MS1, Kyle Samson MS1,

Nadeera Sidique MS1, Yasmina Samaha MS1, MSW

Disclosures

We have no disclosures to report.

DUCOM's NOP Team



Deaths from Opioid Overdose in 2016

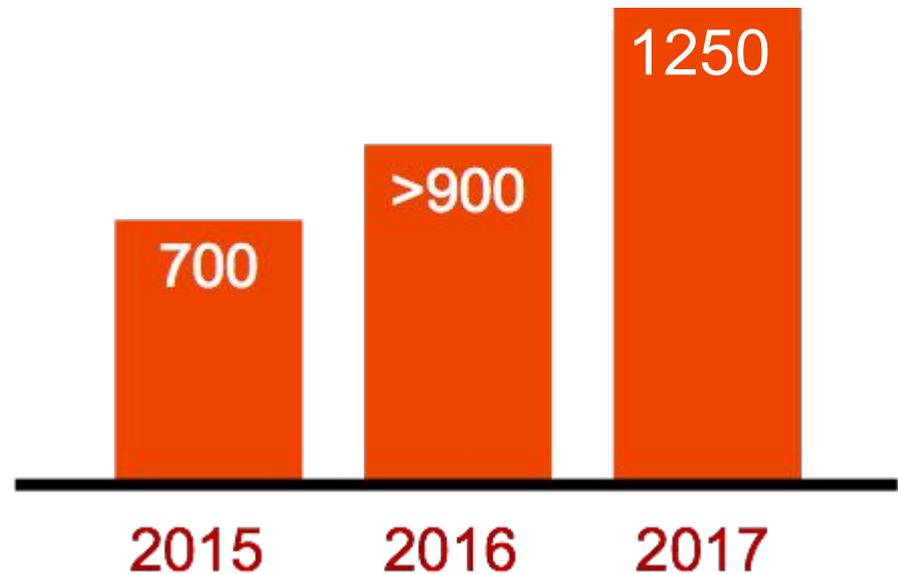
- Total deaths in US: **42,249**
 - PA: 4,627 (11% of total overdose deaths)

Drug Overdose Death Data. Cdc.gov. <https://www.cdc.gov/drugoverdose/data/statedeaths.html> Published December 19, 2017.
Accessed January 9, 2018.

Current Data: Deaths due to Drug Overdose in Philadelphia, PA

Philadelphia:

- **700** deaths in 2015
- **907** deaths in 2016
- **1250** deaths in 2017



Opioid Addiction 2016 Facts & Figures. *American Society of Addiction Medicine*.

<https://www.asam.org/docs/default-source/advocacy/opioid-addiction-disease-facts-figures.pdf>

Philadelphia Department of Public Health. Overdose deaths involving opioids in Philadelphia. CHART 2016;1(1):1-8.

Opioid Prescriptions

- Nearly **215 million opioid prescriptions** were filled in the US in 2016.
 - **Family Medicine, Internal Medicine, and Dentistry** are among the medical specialties that prescribe the most opioids in the US.
- 2016 survey of patients on chronic opioid therapy for pain management showed that patients had poor knowledge of their overdose risk and of naloxone.

Clark MN. *Qualitative study of opioid overdose education and naloxone access strategies in community health center primary care settings: Opportunities for expanding access and saving lives*. ProQuest Dissertations Publishing; 2017.

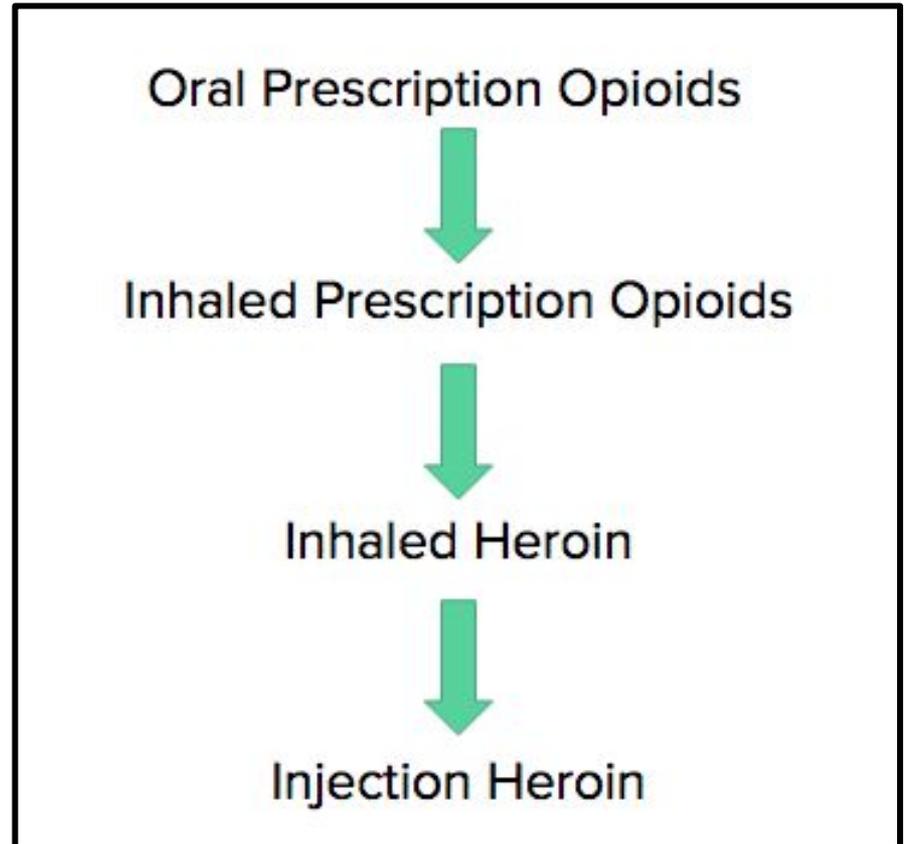
Opioid Use Disorders

- 1.9 million Americans have an OUD related to prescription opioids (2014)
- 600,000 Americans have an OUD related to heroin (2014)

Compton WM, Jones CM, Baldwin GT. Nonmedical Prescription-Opioid Use and Heroin Use. *New England Journal of Medicine*. 2016;374(13):1295-1296. doi:10.1056/nejmc1601875.

Progression of Use

4 out of 5 individuals using heroin started out by misusing prescription pain relievers



Sharma B, Bruner A, Barnett G, Fishman M. Child and adolescent psychiatric clinics of North America: Opioid Use Disorders. WB Saunders Company; 07/01/2016;25:473.

Healthcare Professionals: Behaviors, Attitudes, & Confidence Levels

2017 survey of primary care physicians attending the Mayo Clinic Opioid Conference:

- **High amounts of stigma** among physicians toward OUD:
 - Large amounts of social distance desired
- **73%** believed **doctors keep patients on prescription opioids for too long**, however **89%** believed the **individual patient is responsible** for addressing the OUD
- Only **53%** supported a policy to provide naloxone to friends and family of patients receiving prescription opioids
- **62.1% were comfortable screening** their patients for SUD

Pearson, A. Moman, R. Moeschler, S. et al. Provider Confidence in Opioid Prescribing and Chronic Pain Management: Results of the Opioid Therapy Provider Survey. *Journal of Pain Research*. 2017;(10), 395-400.

Healthcare Professionals: Behaviors, Attitudes, & Confidence Levels

2017 Qualitative Study about Opioid Overdose/Naloxone Education in Primary Care Settings in Massachusetts:

- Lack of time to educate patients
- “Fear they will offend their patients by bringing up the subject of overdose”

Clark MN. *Qualitative study of opioid overdose education and naloxone access strategies in community health center primary care settings: Opportunities for expanding access and saving lives*. ProQuest Dissertations Publishing; 2017.

Wilson CG, Rodriguez F, Carrington AC, Fagan EB. Development of a targeted naloxone coprescribing program in a primary care practice. *Journal of the American Pharmacists Association*. 2017.

Gatewood AK, Van Wert MJ, Andrada AP, Surkan PJ. Academic physicians' and medical students' perceived barriers toward bystander administered naloxone as an overdose prevention strategy. *Addictive Behaviors*. 2016;61:40-46.

DUCOM'S NALOXONE OUTREACH PROGRAM (NOP)

GOALS OF NOP

REDUCE OVERALL NUMBER OF FATALITIES DUE TO OPIOID OVERDOSE

HOW?

Increase knowledge about opioid overdose and naloxone, reduce opioid misuse, and increase access to naloxone:

- EDUCATION OF HEALTH PROFESSIONALS
- COMMUNITY OUTREACH
- COLLABORATION



Elvis Rosado, Prevention Point Philadelphia

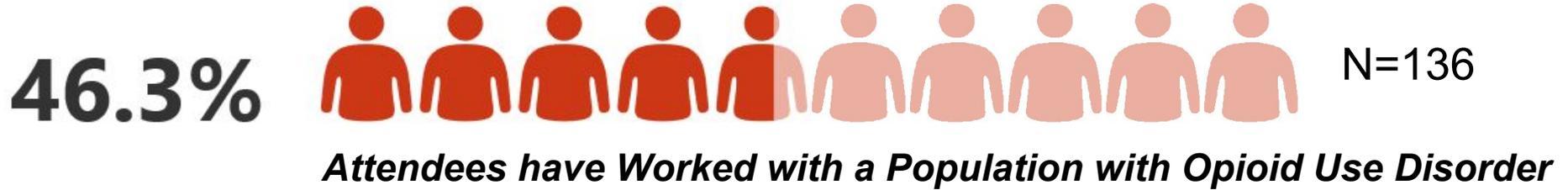
**Rohit Mukherjee, Philip Yates, & Hiral Lathia,
DUCOM Class of 2019**



Education of Healthcare Professionals

Health Professional Trainee Attendee Statistics

(Includes medical residents and medical, nursing, and pharmacy students)



NOP Training for Health Professional Students



Training Medical Students in Kensington, Philadelphia

Topics covered during a health professional student training:

- History of Epidemic
- Statistics about Overdoses & Prescriptions
- Harm Reduction
- Destigmatization of Addiction
- Safe Prescribing and Prescription Drug Monitoring Program
- Overdose Prevention, Recognition, Reversal & Naloxone Administration



Interschool Trainings at Drexel Medical School

NOP's Train-The-Trainer Model

The students we train then go on to train their peers at their healthcare professional schools as well community members at risk for overdose or at risk for witnessing overdose.



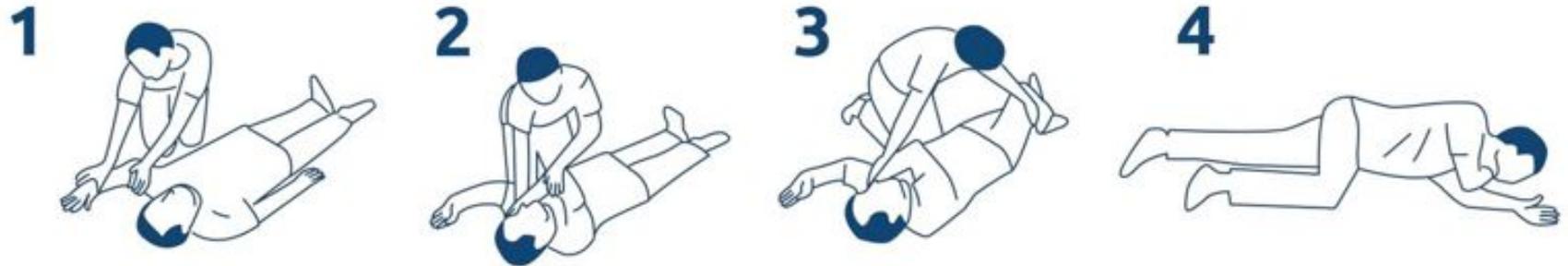
- 1) **Stimulation**
- 2) **Call 911** (if not responding to any stimuli)
- 3) **Medication** (Administer Naloxone)
- 4) **Airway Check**
- 5) **Rescue Breaths** (2 strong breaths every 5 seconds)
- 6) **Evaluate**



If after 10 minutes, person is still not breathing, give him/her another dose of Naloxone and continue to give rescue breaths.

If the person starts to breathe on their own, **place them in the recovery position**

Interactive Demonstration and Practice of Recovery Position



Legal Liability & Standing Order

- **Good Samaritan Law:** protects individuals from being charged or arrested for the overdose
- **Standing Order:** statewide order that allows public access to naloxone at any pharmacy

Drug Overdose Immunity and Good Samaritan Laws. National Conference of State Legislators. June 2017.
<http://www.ncsl.org/research/civil-and-criminal-justice/drug-overdose-immunity-good-samaritan-laws.aspx>

“Standing Order DOH-002-2015 Naloxone Prescription For Overdose Prevention.” Pennsylvania Department of Health.
<http://www.ddap.pa.gov/overdose/Documents/Naloxone/Naloxone%20Standing%20Order%20for%20General%20Public.pdf>.

STFM Conference on Medical Student Education



COMMUNITY OUTREACH



Join the conversation on Twitter: #MSE18



STFM Conference on Medical Student Education



- ❖ Created a Standardized Training Manual
- ❖ Train community members in overdose reversal & naloxone administration
- ❖ Provide Overdose Reversal Kits with 1-2 Naloxone Doses
- ❖ Educate about the Standing Order

Join the conversation on Twitter: #MSE18

In-Progress Naloxone Outreach Project Data

Pilot Outreach Event to Provide Naloxone and Educate Community Members about Opioid Overdose Reversal

Goals:

Assess efficacy of providing overdose reversal education and naloxone to community members in Kensington, PA

Methods:

- Initially provided opioid overdose reversal training and 21 naloxone doses to community members
- Followed up within 2 months to identify overdose events and need for further training/naloxone

Pilot Outreach Event to Provide Naloxone and Educate Community Members about Opioid Overdose Reversal

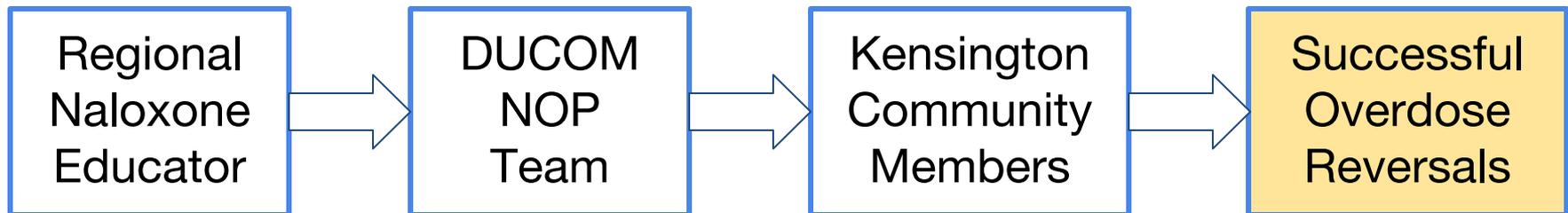
Results:

Within 2 months of starting the pilot project:

10 out of 21 doses of naloxone were used and

9 lives were saved

Implications:



Strong support for the Train-the-Trainer model

Long Term Follow Up of Naloxone Doses Provided to Community Members During the Pilot Outreach Event in March 2017

21 
Doses of Naloxone Provided to the Community

12 
Number of Doses Used (2 used for two fentanyl-related overdoses)

11 
Completed Reversals (one reversal using rescue breathing only)

10 
Lives Saved from Naloxone Administration

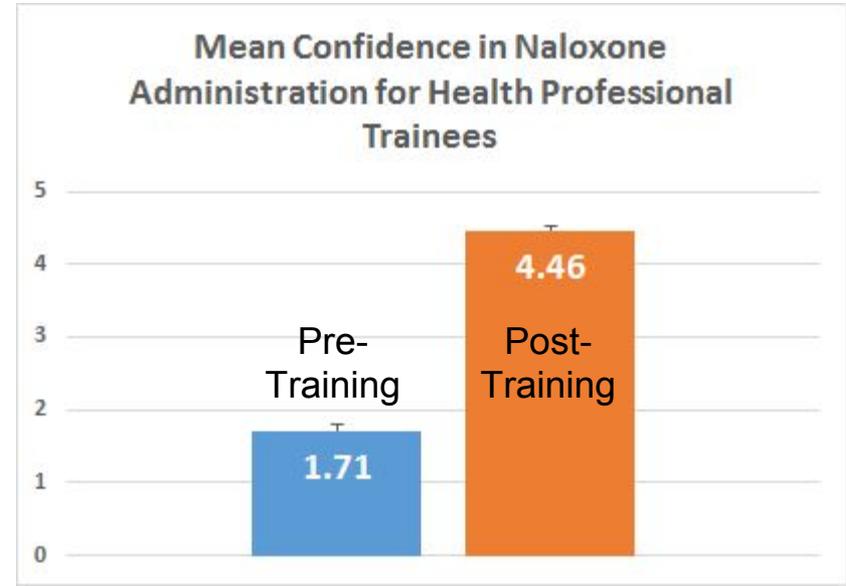
At our training events, we implement **pre** and **post-training surveys** that **quantify confidence** using a 5 point Likert Scale as shown below:

Not at all Confident	Not very Confident	Somewhat Confident	Confident	Very Confident
1	2	3	4	5

Confidence is assessed in the areas of:

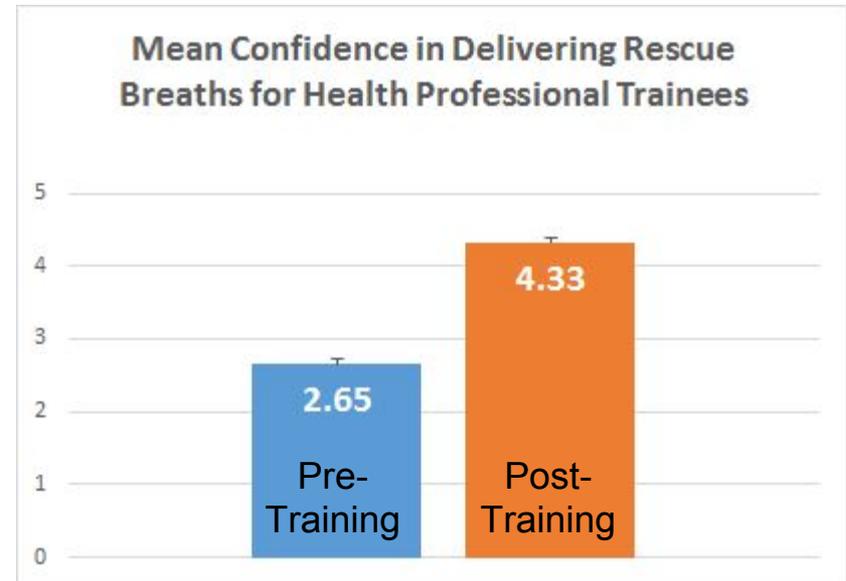
- Overall knowledge to reverse an opioid overdose
- Administration of naloxone
- Rescue breathing
- Use of Pennsylvania's Standing Order
- Bringing up the topic of overdose with a patient
- Education of a patient regarding overdose and naloxone

STFM Conference on Medical Student Education



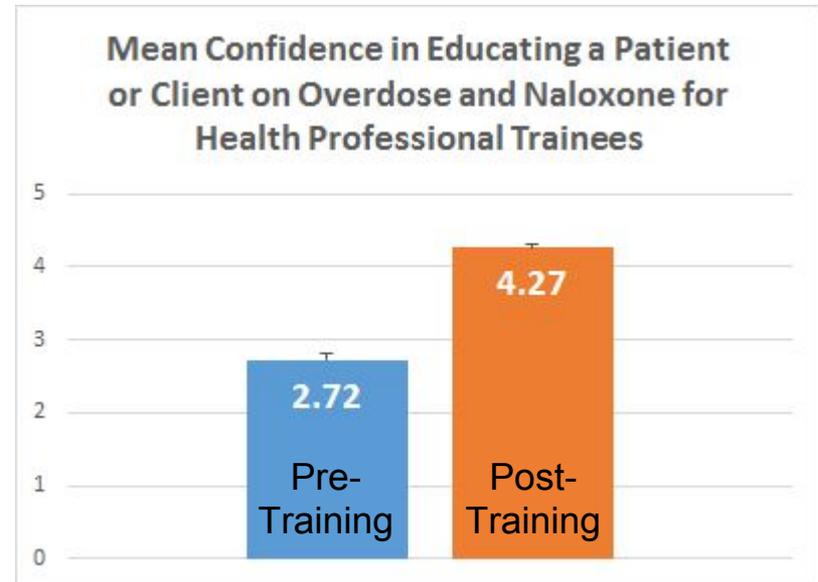
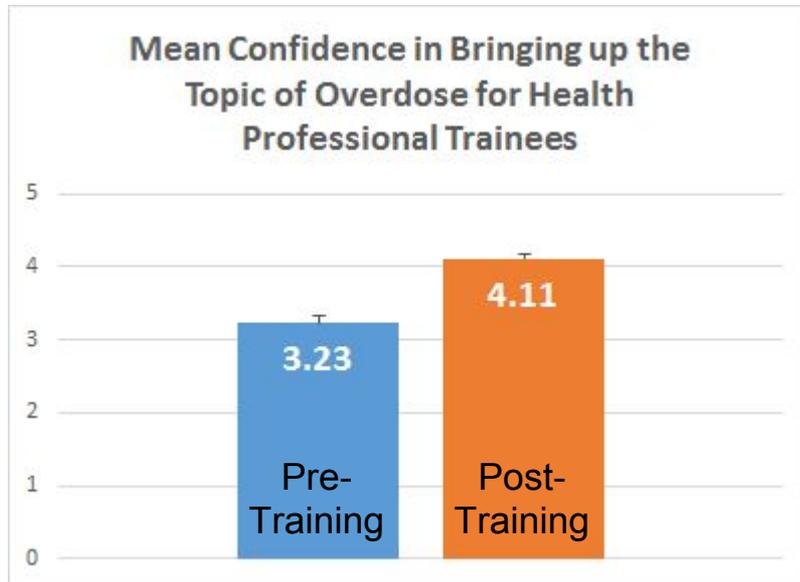
Health Professional Student Training Data

- All post-training categories showed a statistically significant **rise in confidence**

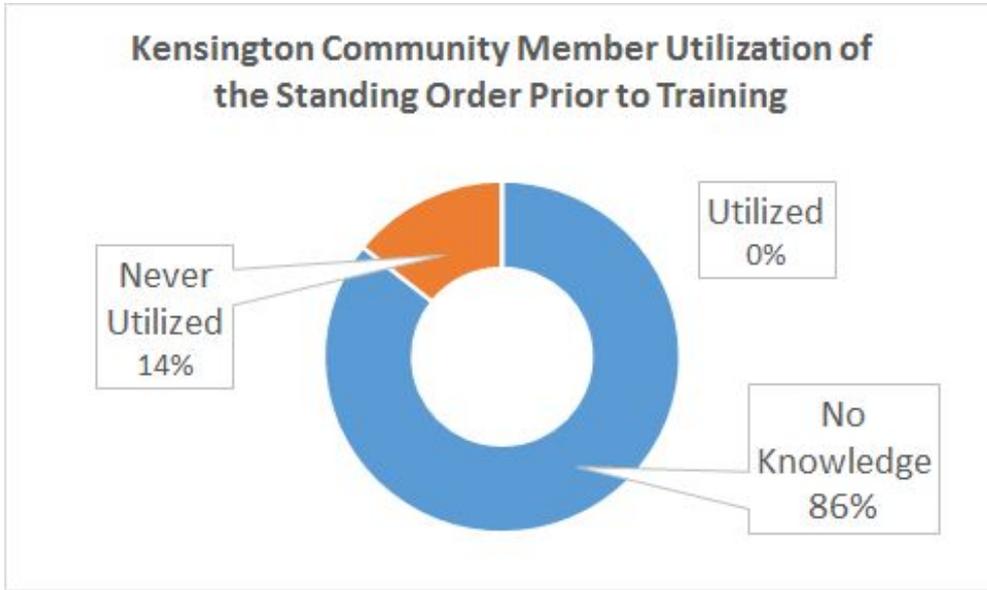


STFM Conference on Medical Student Education

- Trainees with no knowledge of PA's **Standing Order** had a quantified mean **post-training confidence** of **4.08**, n=51
- Confidence in **bringing up overdose** with patients was over half (0.511) a quantified confidence ranking **greater than educating a patient**



Community Member Training Data

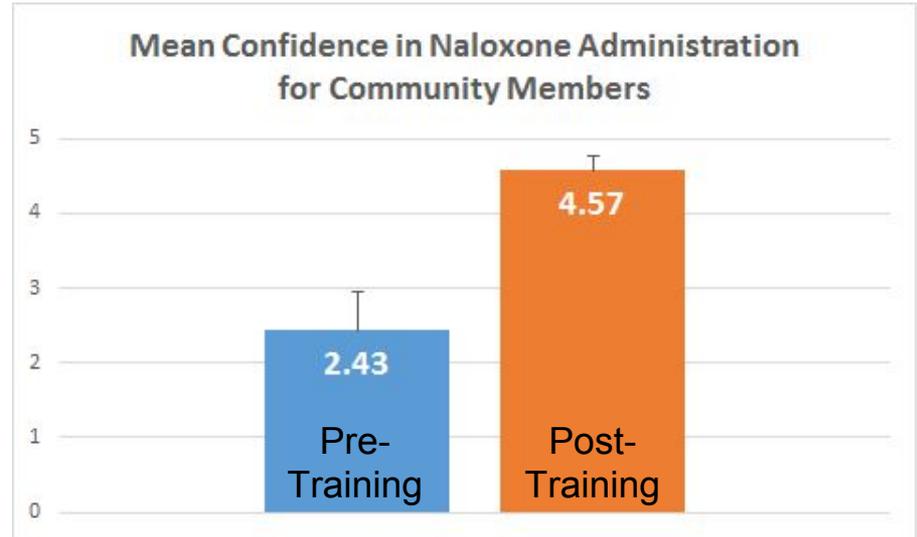
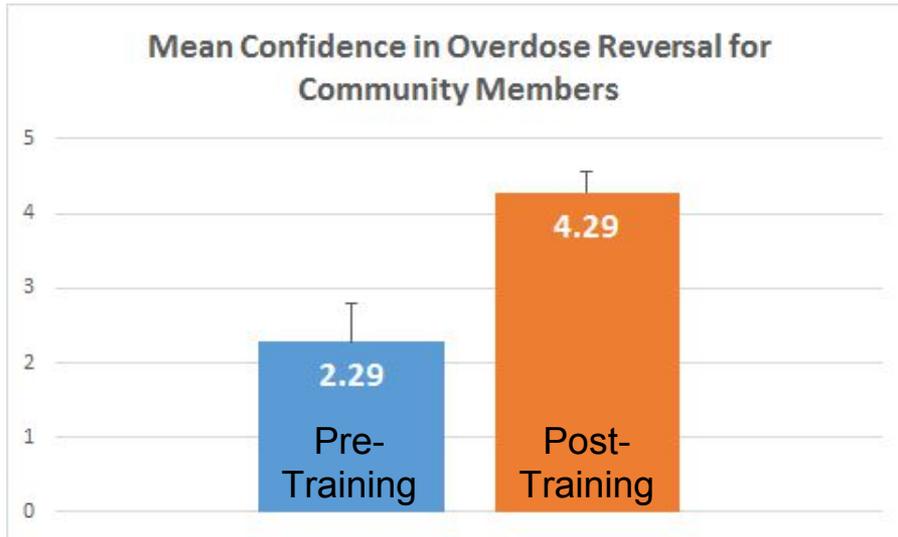


- Of community members surveyed prior to training, **86% had no knowledge** of what Pennsylvania's **Standing Order** was

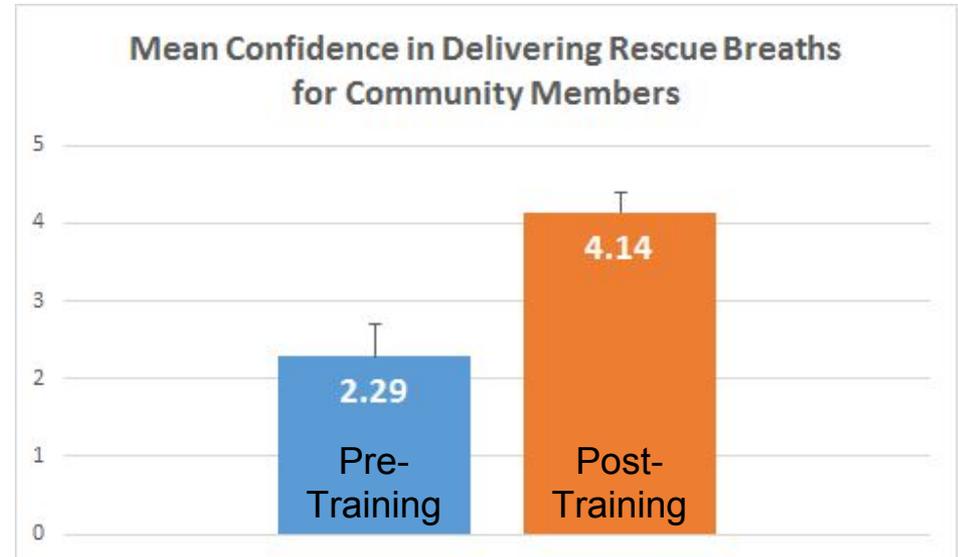
- **Post-training confidence** of community members in the **use of Pennsylvania's Standing Order increased similar to health professional trainees**



STFM Conference on Medical Student Education



- **Community members** demonstrated a **similar rise** to health professional students in pre and post-training **confidence categories**



Summary of Data and Future Goals

- Our data demonstrates **statistically significant increases** in multiple **confidence** measures regarding opioid **overdose reversal** and **naloxone administration** for both health professional students and community members
- The demonstrated effectiveness for both health professional students and community members using identical training processes **further supports a train-the-trainer model**, where trained students would be able to effectively train the greater community

NOP's Expansion to Naloxone Outreach Interschool Collaborative (NOIC)



UPenn Medical & Nursing Programs



Philadelphia College of Pharmacy

NOP creates a collegial environment in which future healthcare professionals work together as a team to enact change within communities-in-need



Philadelphia College of Osteopathic Medicine

Join the conversation on Twitter: #MSE18



Temple School of Pharmacy



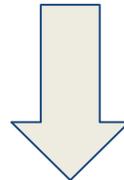
Naloxone Outreach Interschool Collaboration

Cooper School of Medicine of Rowan University

Long-Term Benefits of NOP's Train-the-Trainer Model on Patient Care

By training peers and performing community outreach:

- **Reduce stigmatization** of opioid users
- Acquire **knowledge to identify** patients at risk for overdose
- Give students the comfort levels, communication skills, and knowledge to have **open dialogues** with their patients about naloxone and overdose
- Instill **team-based approach** across disciplines so that every part of a healthcare team is talking to one another--pharmacists, nurses, and practitioners.



Effectively educate and communicate with patients to reduce morbidity and mortality due to opioid misuse.

Conclusions

- NOP represents a team of medical students dedicated to increasing knowledge of opioid overdose and increasing access to naloxone.
- Using the “train-the-trainer model,” we reach a vast number of individuals including providers, students, and community members.
- With NOIC, we are promoting collaboration across disciplines to set a foundation for a knowledgeable and communicative healthcare team.
- We believe that NOP has effectively established a model that may be adopted and integrated into a multitude of curricula across the country.

Thank you!

Sources

Drug Overdose Death Data. Cdc.gov. <https://www.cdc.gov/drugoverdose/data/statedeaths.html>
Published December 19, 2017. Accessed January 9, 2018.

Ahmad FB, Rossen LM, Spencer MR, Warner M, Sutton P. Provisional drug overdose death counts. National Center for Health Statistics. 2018.

Opioid Addiction 2016 Facts & Figures. *American Society of Addiction Medicine*.
<https://www.asam.org/docs/default-source/advocacy/opioid-addiction-disease-facts-figures.pdf>

U.S. State Prescribing Rates, 2016. Cdc.gov.
<https://www.cdc.gov/drugoverdose/maps/rxstate2016.html> Published July 31, 2017. Accessed January 9, 2018.

Clark MN. *Qualitative study of opioid overdose education and naloxone access strategies in community health center primary care settings: Opportunities for expanding access and saving lives*. ProQuest Dissertations Publishing; 2017.

Porucznik CA, Christina A Porucznik, Erin M Johnson, Robert T Rolfs, Brian C Sauer. Pain medicine (Malden, Mass.): Specialty of Prescribers Associated with Prescription Opioid Fatalities in Utah, 2002-2010. Blackwell Publishing; 01/01/2014;15:73.

Sources

Compton WM, Jones CM, Baldwin GT. Nonmedical Prescription-Opioid Use and Heroin Use. *New England Journal of Medicine*. 2016;374(13):1295-1296. doi:10.1056/nejmc1601875.

Sharma B, Bruner A, Barnett G, Fishman M. Child and adolescent psychiatric clinics of North America: Opioid Use Disorders. WB Saunders Company; 07/01/2016;25:473.

Opioid Addiction 2016: Facts and Figures. Asam.org.

<https://www.asam.org/docs/default-source/advocacy/opioid-addiction-disease-facts-figures.pdf>

Published 2016. Accessed January 8, 2018.

Philadelphia Department of Public Health. 2016 Overdoses From Opioids in Philadelphia. *CHART* 2017;2(7):1-3.

“Drugs of Abuse: A DEA Resource Guide.” *Drug Enforcement Administration*, 2017.

“Fentanyl-Fueled Overdoses.” *Jama*, vol. 317, no. 20, 2017, p. 2055., doi:10.1001/jama.2017.5924.

“Fentanyl.” Centers for Disease Control. 2017.

<https://www.cdc.gov/drugoverdose/opioids/fentanyl.html>

Sources

Hubbard, R. Craddock S. Anderson J. Overview of 5 year Follow Up Outcomes in the Drug Abuse Treatment Outcome Studies. *Journal of Substance Abuse Treatment*. 2003 Oct;25(3):125-34.

Health Professionals Criticize Opposition to Amherst Methadone Clinic. Bazan, J. Wkbw.com. <https://www.wkbw.com/news/health-professionals-criticize-opposition-to-amherst-methadone-clinic> Published April 21, 2017. Accessed January 8, 2018.

Pearson, A. Moman, R. Moeschler, S. et al. Provider Confidence in Opioid Prescribing and Chronic Pain Management: Results of the Opioid Therapy Provider Survey. *Journal of Pain Research*. 2017;(10), 395-400.

Kennedy-Hendricks, A. Busch, S. McGinty, E. et al. Primary Care Physicians' Perspectives on the Prescription Opioid Epidemic. *Drug Alcohol Depend*. 2016 August 1; 165: 61–70. doi:10.1016/j.drugalcdep.2016.05.010.

Operation Naloxone. Utxas.edu. <http://sites.utexas.edu/naloxone/> Accessed January 19, 2018.

Clark MN. *Qualitative study of opioid overdose education and naloxone access strategies in community health center primary care settings: Opportunities for expanding access and saving lives*. ProQuest Dissertations Publishing; 2017.

Sources

Wilson CG, Rodriguez F, Carrington AC, Fagan EB. Development of a targeted naloxone coprescribing program in a primary care practice. *Journal of the American Pharmacists Association*. 2017.

Gatewood AK, Van Wert MJ, Andrada AP, Surkan PJ. Academic physicians' and medical students' perceived barriers toward bystander administered naloxone as an overdose prevention strategy. *Addictive Behaviors*. 2016;61:40-46.

Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. (September 4, 2014). *The NSDUH Report: Substance Use and Mental Health Estimates from the 2013 National Survey on Drug Use and Health: Overview of Findings*. Rockville, MD.

Philadelphia Department of Public Health. Overdose deaths involving opioids in Philadelphia. *CHART* 2016;1(1):1-8.

Am Fam Physician. 2013 Jul 15;88(2):113-121.

Community Management of Opioid Overdose. *World Health Organization*, 2014.

State Prescription Drug Monitoring Programs. Drug Enforcement Administration. https://www.deadiversion.usdoj.gov/faq/rx_monitor.htm#4 June 2016.

Please evaluate this presentation using the conference mobile app! Simply click on the "clipboard" icon  on the presentation page.