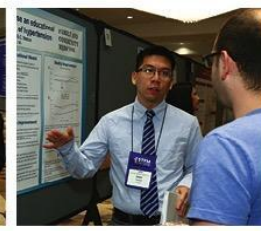


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DREXEL UNIVERSITY COLLEGE OF MEDICINE'S NALOXONE OUTREACH PROGRAM (NOP)



DREXEL UNIVERSITY
College of
Medicine



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Disclosures

We have no disclosures to report.

DUCOM's NOP Team



Deaths from Opioid Overdose in 2016

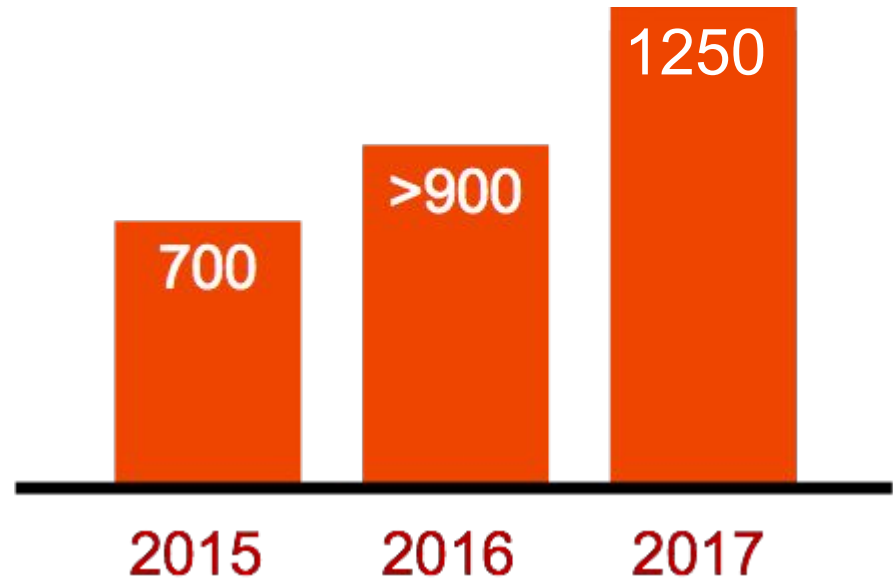
- Total deaths in US: **42,249**
 - PA: 4,627 (11% of total overdose deaths)

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.

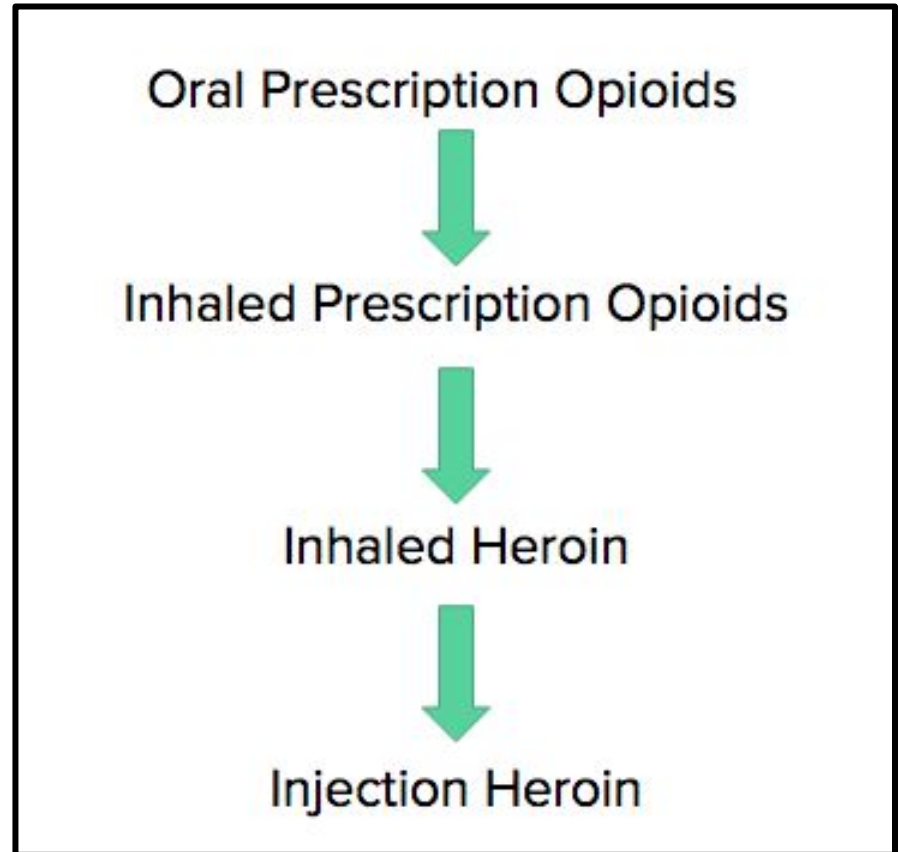
Opioid Use Disorders

- 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.

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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**

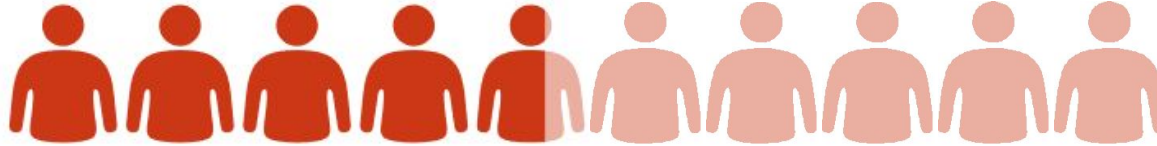


Education of Healthcare Professionals

Health Professional Trainee Attendee Statistics

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

46.3%



N=136

Attendees have Worked with a Population with Opioid Use Disorder

83.2%



N=137

Attendees have Never Witnessed an Overdose

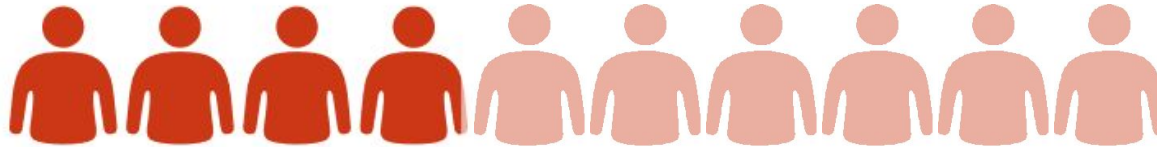
98.5%



N=132

Attendees do NOT Carry Naloxone

39.4%



N=136

Attendees have Never Heard of a Standing Order

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>.

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- ❖ 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

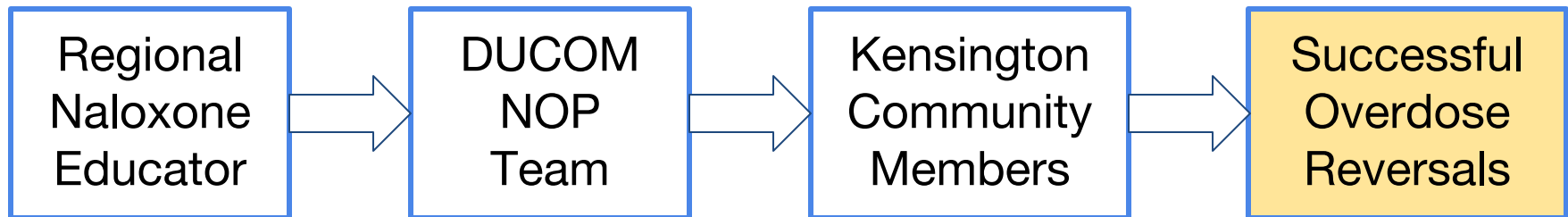
Pilot Outreach Event to Provide Naloxone and Educate Community Members about Opioid Overdose Reversal

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 

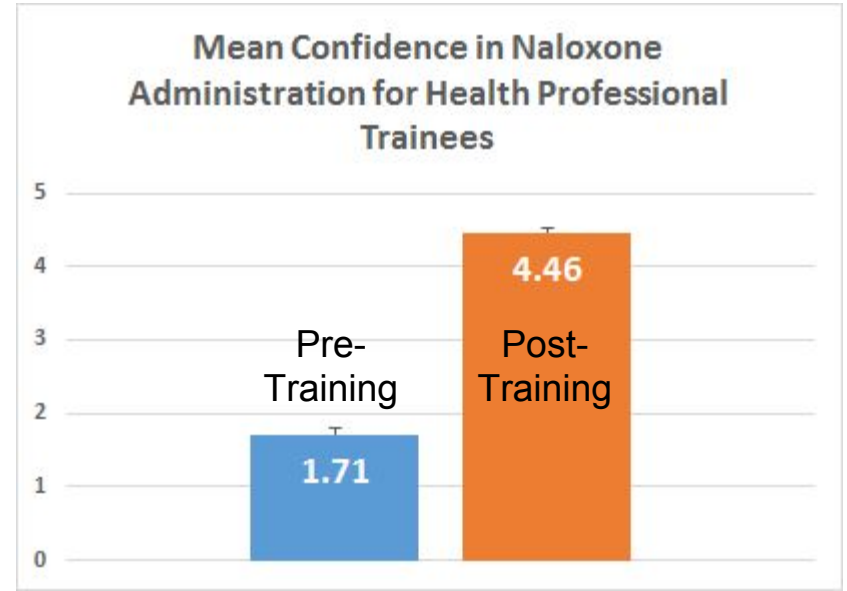
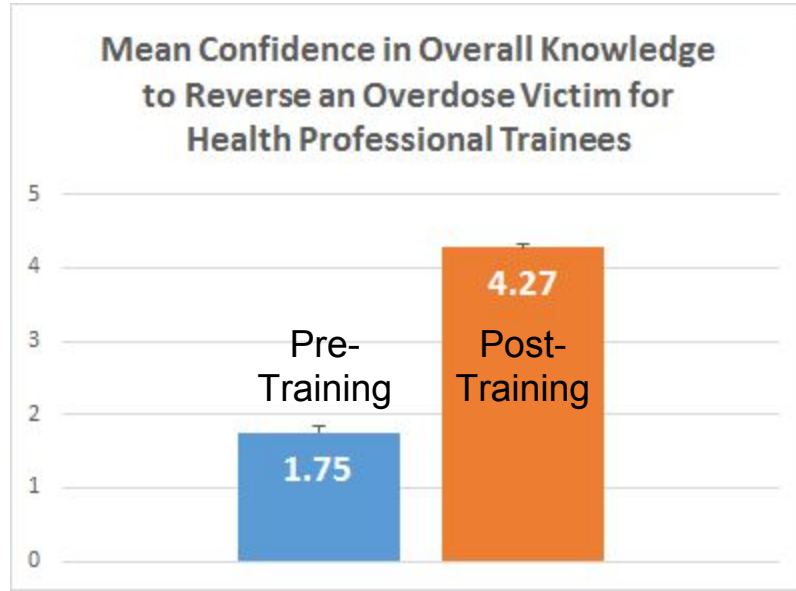
Lives Saved from Naloxone Administration

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

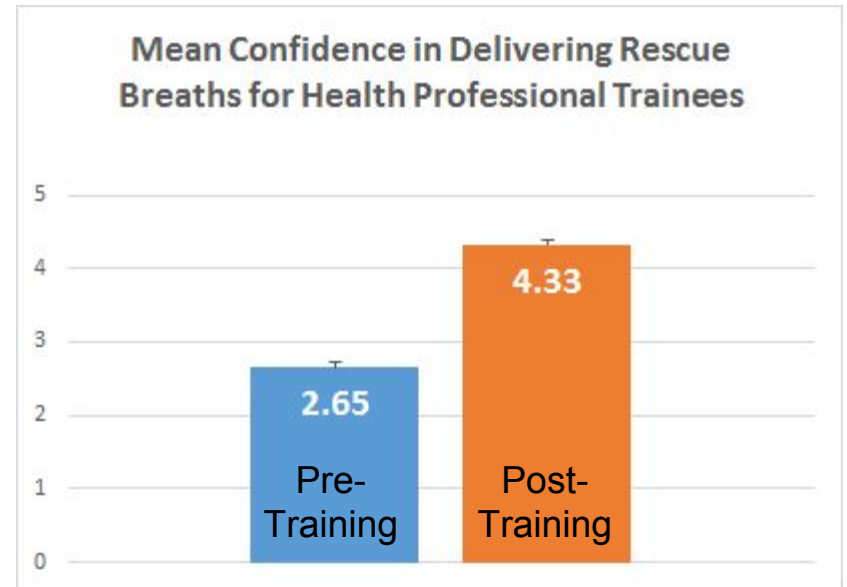
Confidence is assessed in the areas of:

- 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



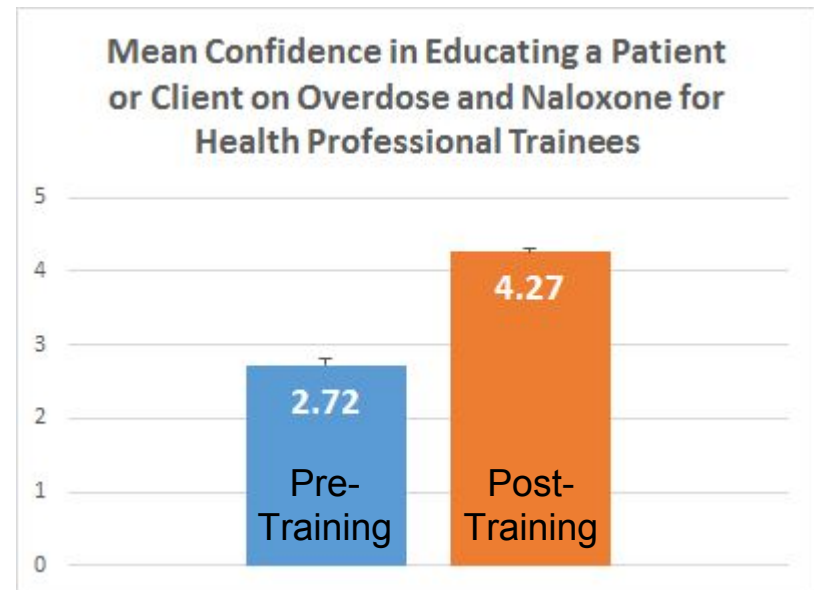
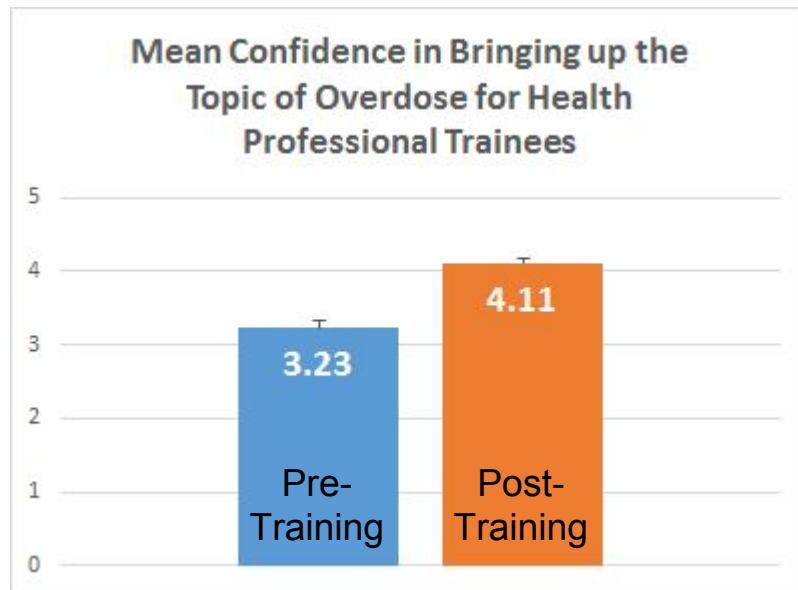
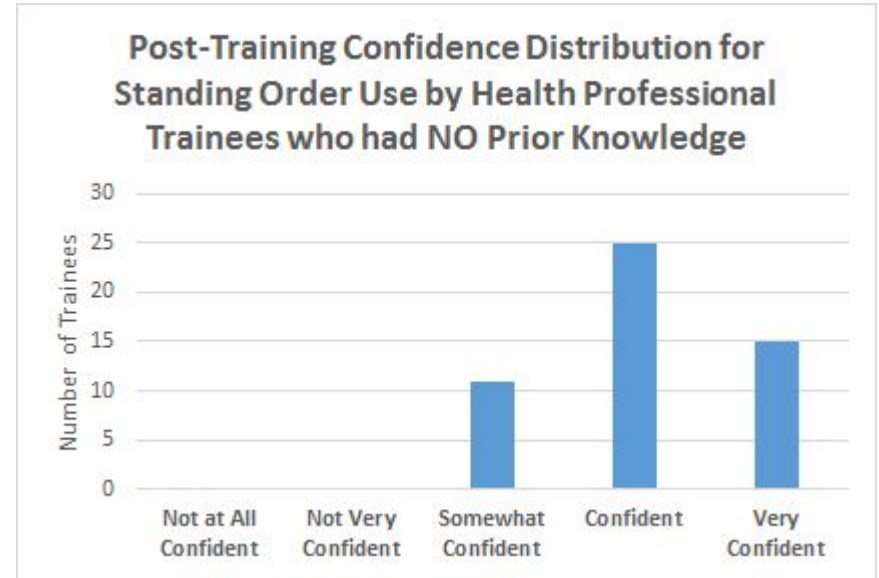
Health Professional Student Training Data

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



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- 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

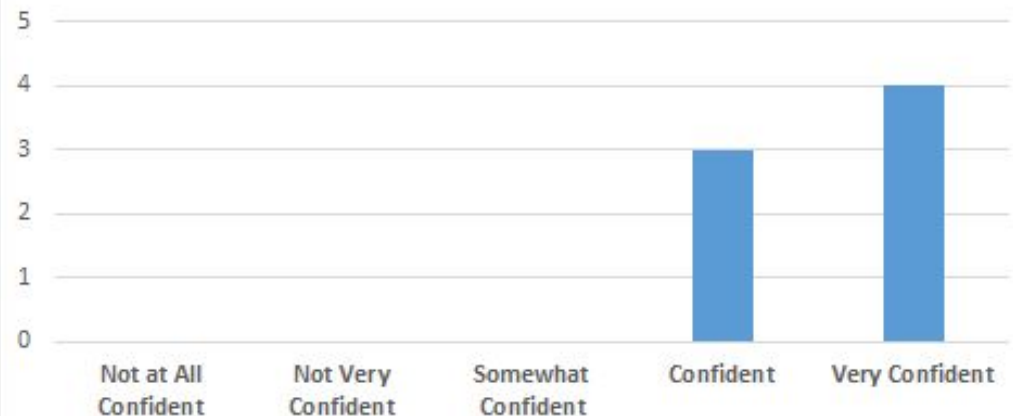
Kensington Community Member Utilization of the Standing Order Prior to Training



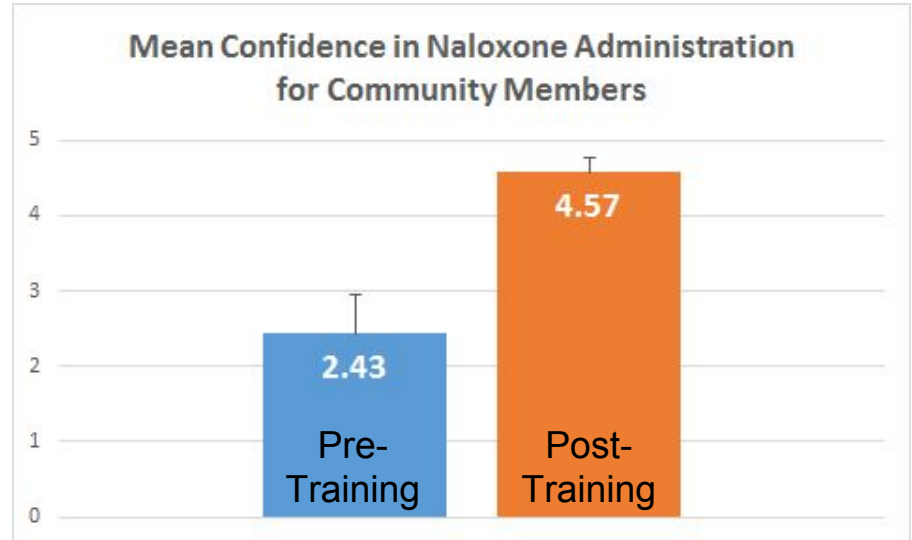
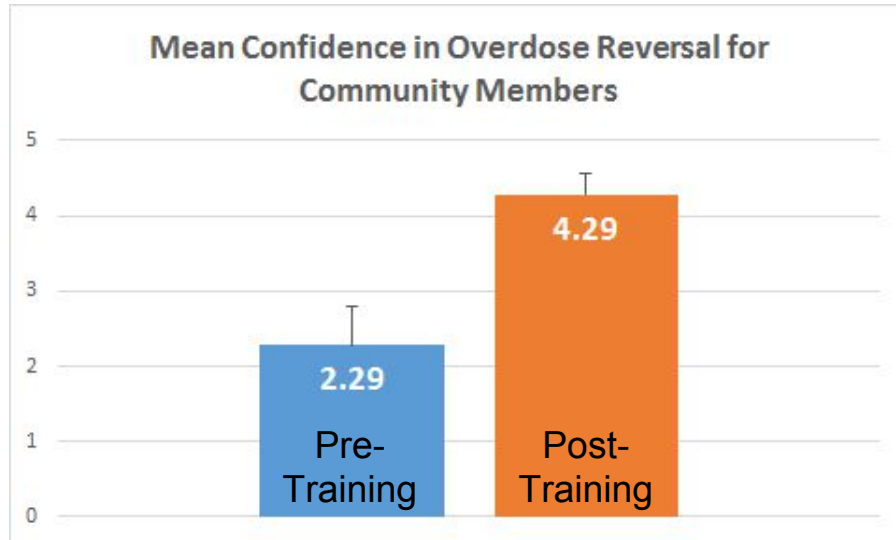
- Of community members surveyed prior to training, **86% had no knowledge** of what Pennsylvania's **Standing Order** was

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

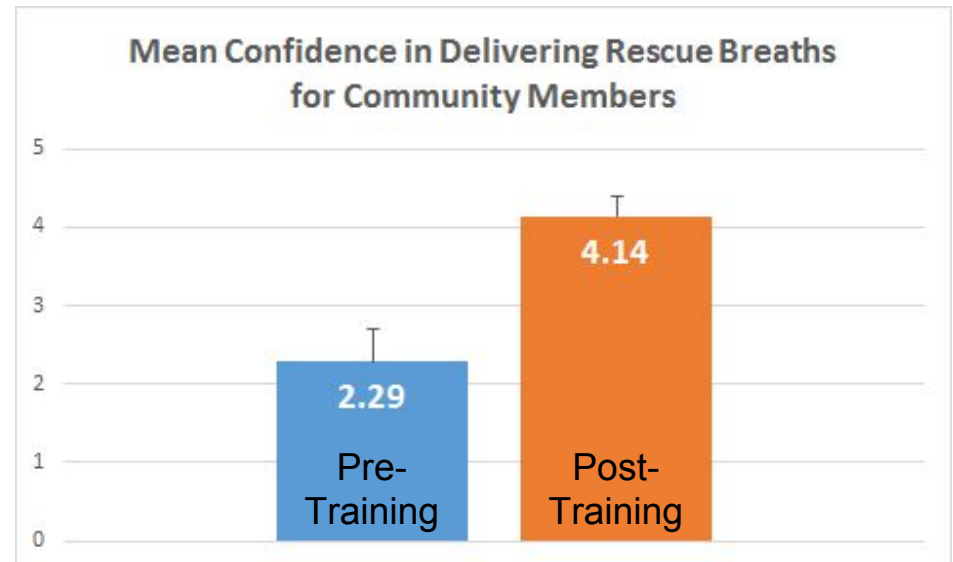
Post-Training Confidence Distribution in Using Pennsylvania's Standing Order by Community Members who had NO Prior Knowledge



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- **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**



**Temple School of
Pharmacy**



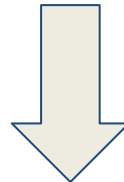
**Naloxone
Outreach
Interschool
Collaboration**

**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!

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