Background

- Fatal overdoses have been increasing in Philadelphia over the last several years
  - 1,217 overdose deaths in 2017
  - 80% of these overdoses involved opioids
- Naloxone is a drug that reverses opioid overdoses by temporarily blocking the effects of opioids on the brain and respiratory system
- The Naloxone Standing Order (NSO) in PA allows pharmacists to dispense naloxone to members of the community who are at risk of encountering overdose victims
- The NSO puts pharmacists on the frontline of this crisis and previous studies have found that pharmacists face challenges to dispensing naloxone, including inadequate training and lack of confidentiality
- Unintentional drug deaths by quarter in Philadelphia, 2014-2017

Methods

- We piloted an online 15-item Qualtrics survey which was available to Thomas Jefferson University Pharmacy students to explore their knowledge and attitudes towards the NSO and the role of the pharmacist in naloxone distribution
- Knowledge items were multiple choice questions that focused on the NSO and naloxone distribution
- Attitude items discussed comfort, time, and training regarding naloxone, and included a Likert scale for responses
- Demographics asked about current year in the Pharmacy program and number of clinical rotations completed
- Data analysis: Qualtrics and Excel were used to analyze overall responses and responses by year within the Pharmacy program (P1, P2, P3, P4)

Results

- 114 respondents
- Most students were P4 (30%, n=33), between the ages of 24-26 (49%, n=54), and completed 6 clinical rotations (26%, n=29)

Q1. At which point did you first learn about Pennsylvania’s standing order prescription?

Q2. At your current or most recent rotation, was there naloxone stocked?

Q3. Do you know where to refer a patient for free naloxone?

Q4. 48% of students have never seen naloxone dispensed to a patient throughout their rotations

Q5. I feel comfortable discussing naloxone’s risks and benefits with patients
Q6. I have been adequately trained on how to administer naloxone
Q7. In my experience I have had enough time to educate patients on naloxone use
Q8. I have no reservations about dispensing naloxone
Q9. I fear being seen as enabling addiction if I dispense naloxone
Q10. In my experience, I feel that patients understood how to use naloxone

Naloxone Experiences

- Only 44% (n=114) of the 259 pharmacy students responded to the survey, which may decrease generalizability
- Social desirability bias may have occurred if students felt they should have given a particular response to a question

Discussion

- Our results show that while students are receiving training, barriers to, and comfort with, educating patients persist
- Students who have completed more rotations or have more work experiences may have different comfort levels and views about dispensing naloxone when compared to students with less experience
- Because students mostly learned about the NSO in their classes, perhaps Pharmacy programs could provide naloxone training in the classroom
- Pharmacists are some of the first people that patients can discuss the NSO with. Future research could focus on administering this survey to pharmacists working in the community to identify and assess their experiences with dispensing naloxone

Strengths & Limitations

Strengths

- Responses were anonymous
- Results can be used to improve TJU’s pharmacy program to prepare students for when they begin working

Limitations

- Only 44% (n=114) of the 259 pharmacy students responded to the survey, which may decrease generalizability
- Social desirability bias may have occurred if students felt they should have given a particular response to a question
- Some questions were not applicable to some students because they have not yet had those experiences

Future Research

- This survey could be administered to pharmacists working in Philadelphia to assess their knowledge about the NSO and their attitudes towards dispensing naloxone

Acknowledgements

Thank you to everyone who helped with this project, including:
- Dr. Frasso
- Dr. Maio
- Dr. Umland
- TJU’s Pharmacy students