

DRAMATIC INCREASE IN INVASIVE GROUP A STREPTOCOCCAL INFECTION IN PERSONS WHO INJECT DRUGS IN AN URBAN PHILADELPHIA HOSPITAL

INTRODUCTION

Invasive infection from Group A streptococcus (iGAS), defined as infection beyond simple skin or soft tissue infection, is rising nationally. We report a significant increase in incidence at an urban, quaternary care health center, which serves the Kensington neighborhood, the epicenter of the opioid crisis in Philadelphia, PA.

METHODOLOGY

- All blood cultures, sterile fluids, and tissue positive for *Streptococcus pyogenes* (GAS) identified in microbiology lab
- Time period for retrospective study comparison:
 - January 1, 2019 - December 31, 2019
 - January 1, 2021 - December 31, 2021
- Retrospective analysis from EMR
- Data collected:
 - Age
 - Gender
 - Infection site
 - PWID (persons who inject drugs) status

RESULTS

- 69 cases of iGAS identified in 2019 (42 bacteremia)
- 155 cases of iGAS identified in 2021 (105 bacteremia)
- Percent PWID
 - 2019: 57% PWID
 - 2021: 84% PWID
- PWID with iGAS were younger:
 - 2019: Median age 35 vs 54
 - 2021: Median age 39 vs 53
- PWID with iGAS more likely to be male:
 - 2019: 57% vs 43%
 - 2021: 68% vs 32%

**224%
INCREASE**

Authors

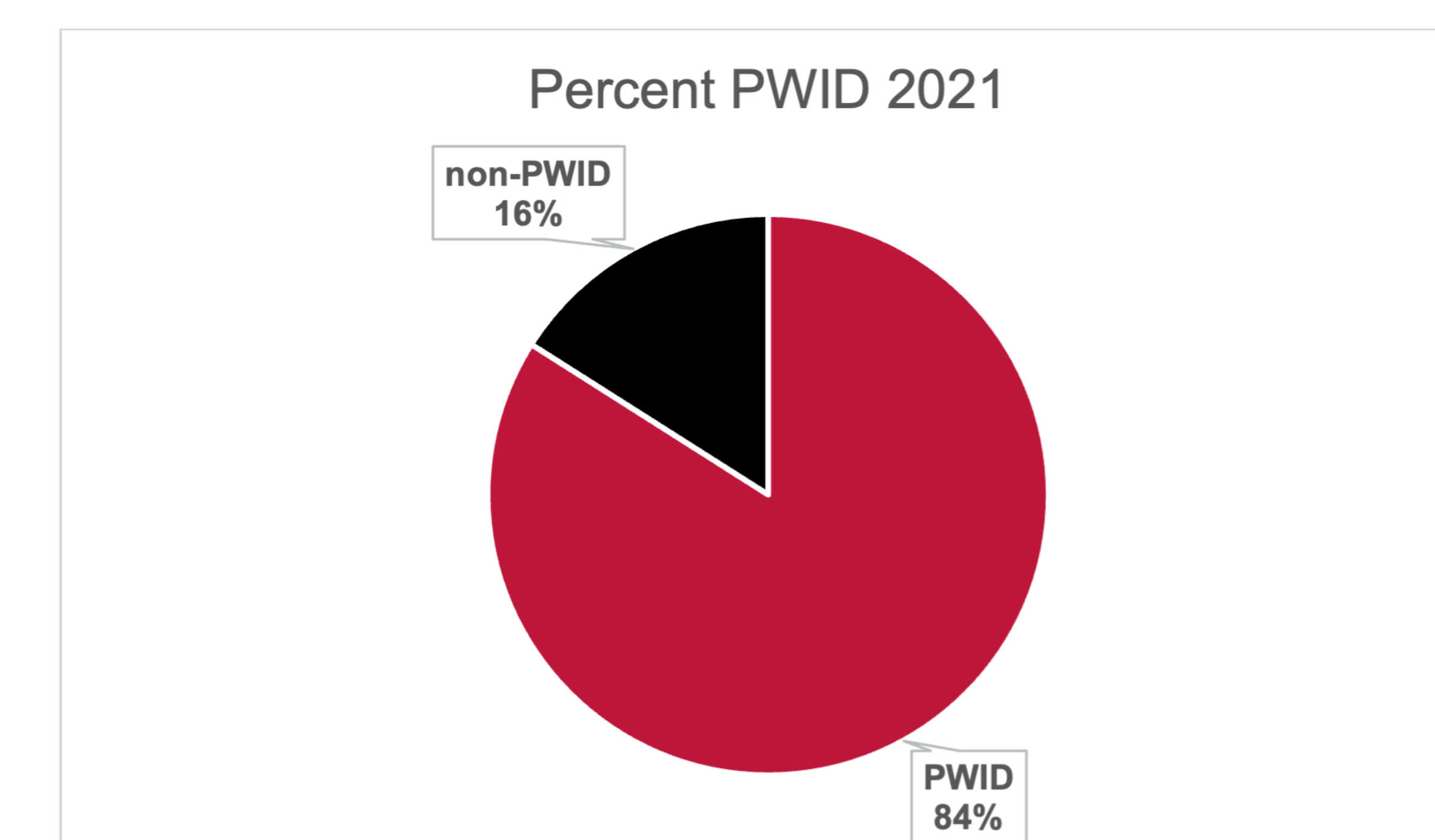
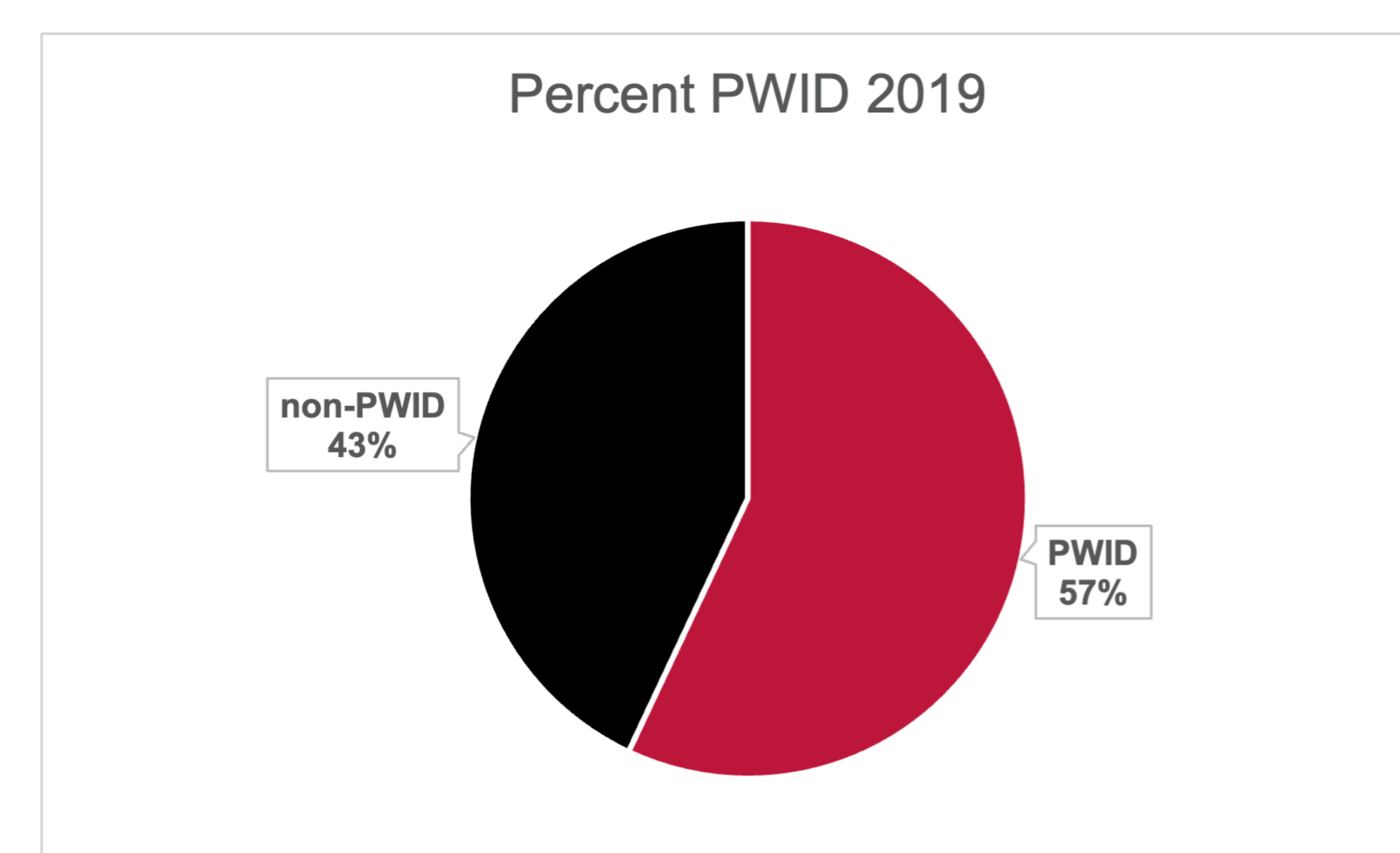
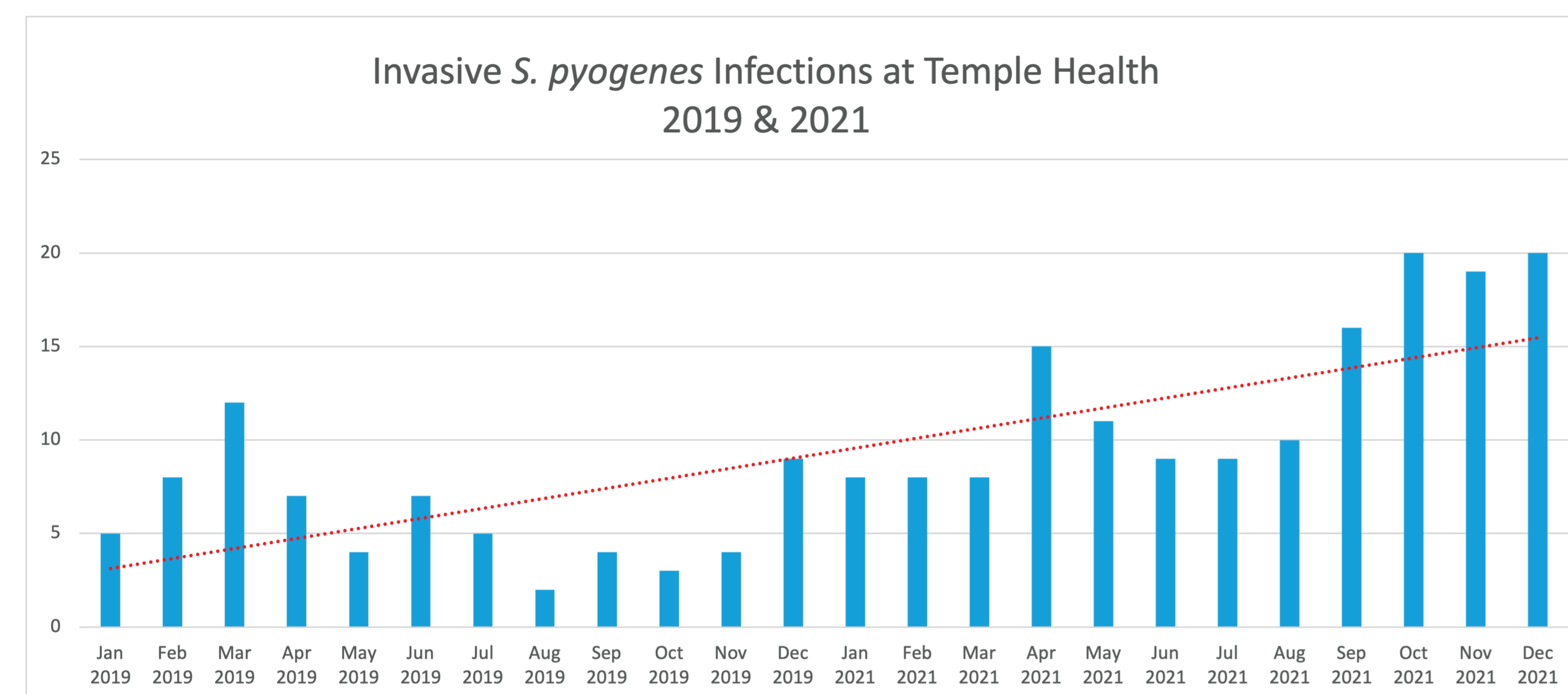
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GRAPHICS



CONCLUSION

- Increase in iGAS cases overall as well as bacteremias
- Increase in iGAS infections amongst PWID patients
- Opioid overdoses and hospitalizations increased in Philadelphia
- Xylazine introduced into fentanyl supply causing increased wounds
 - Possible source of infection
- Concerning association between opioid use and iGAS infections

NEXT STEPS

- Further study of risk factors to assess causation
- Larger cohort
- Possible prospective study
- Comparison with other institutions in Philadelphia