

Drexel Medicine Resident Knowledge, Practices and Attitudes Regarding Pre-Exposure Prophylaxis (PrEP)

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Abstract

Pre-exposure prophylaxis (PrEP) is a highly effective daily oral antiretroviral medication that was approved by the FDA in 2012 and has been shown to reduce the risk of HIV by 95% in real world studies¹. Despite this, many healthcare providers are not offering PrEP to their patients who are at risk for HIV. We performed a cross-sectional study among Drexel Internal Medicine, Family Medicine, and Obstetrics and Gynecology residents. The survey was adapted from previous studies regarding medical providers' attitudes and knowledge about PrEP. 155 individuals completed the survey among which 143 identified themselves as residents. Among the surveyed residents, 80% specialized in Internal Medicine. 43% of participants were in their first year of training and the mean age (\pm SD) was 29 ± 2 . 76% reported never initiating a conversation about PrEP with a patient and only 18% reported ever prescribing PrEP to their patients. All of the rates, including having prescribed, increased with year, although even in year 3 only 40% ever had prescribed. We found that most residents have minimal experience with prescribing PrEP, and knowledge was identified as the largest barrier. Additional education and better understanding of PrEP indications is necessary to ensure eligible PrEP patients have access to this highly effective HIV prevention method.

Introduction

- In 2012, the FDA approved the daily use of a pill combining tenofovir and emtricitabine to be used as pre-exposure prophylaxis (PrEP) for HIV prevention.
- In Philadelphia in 2018, there were 424 new cases of HIV and 19,011 people living with HIV and PDPH estimates that over 13,900 people in Philadelphia are eligible for PrEP².
- The transmission risk of new cases of HIV in Philadelphia were 48.8% men who have sex with men (MSM), 18.3% heterosexual and 14.6% people who inject drugs (PWID) in 2018².
- To enhance the availability of PrEP, a variety of healthcare providers will need to offer it to eligible patients.
- Drexel Medicine's various practices are located near neighborhoods with high prevalence of HIV in Philadelphia.
- We aimed to assess Drexel Medicine's residents' knowledge, practices and attitudes of the use of PrEP.

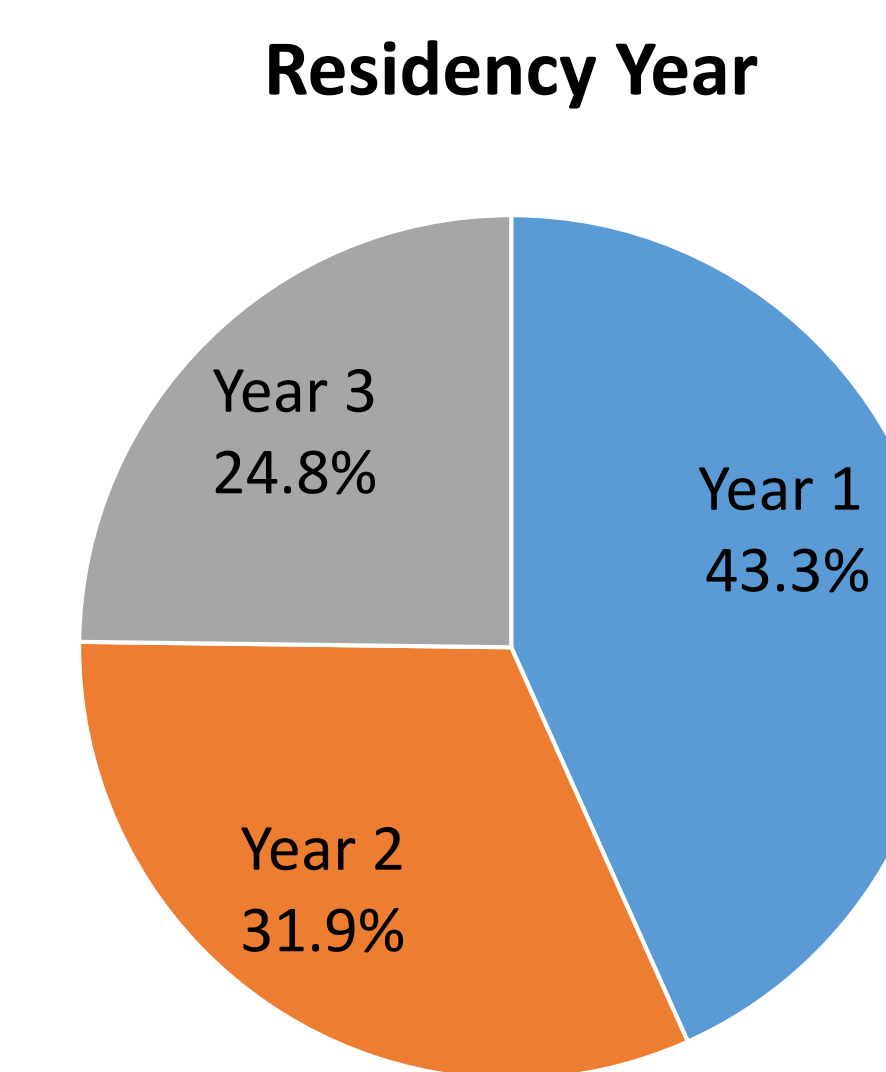
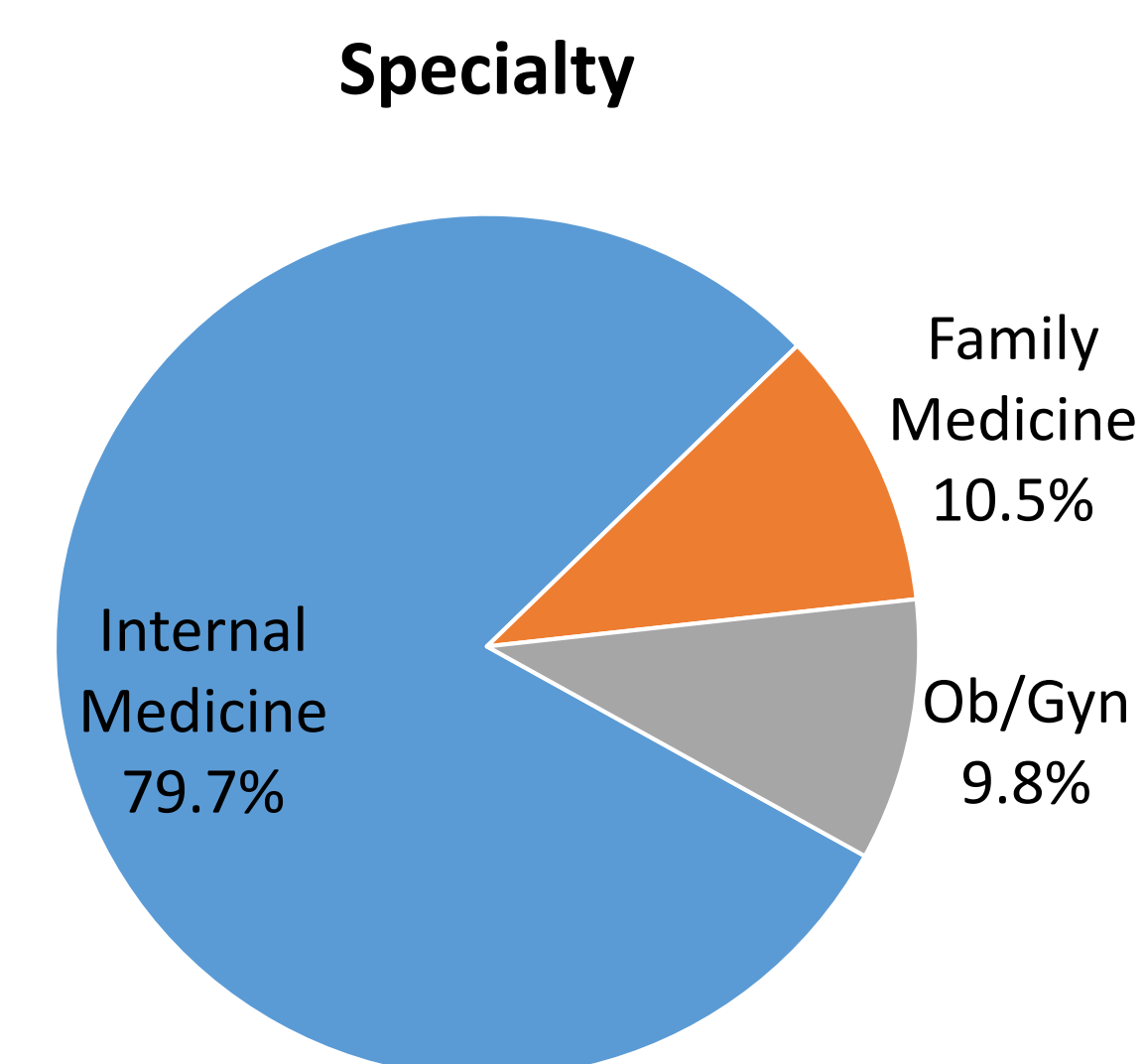
Methods

- Cross-sectional survey before a 60-minute presentation about PrEP to the various Drexel Medicine residency groups.
- The 18-item survey was adapted from three previous studies evaluating providers attitudes and perceptions of PrEP³⁻⁵.
- 4 questions about experience, 2 regarding knowledge, and 12 addressing attitudes toward and barriers to using PrEP.
- A Likert 5-point scale was used for attitude and barriers questions and multiple choice and Yes/No were used for Knowledge and Experience questions.
- We used chi-square test, Kruskal-Wallis ANOVA and logistic regression to analyze data.

Results

Demographics

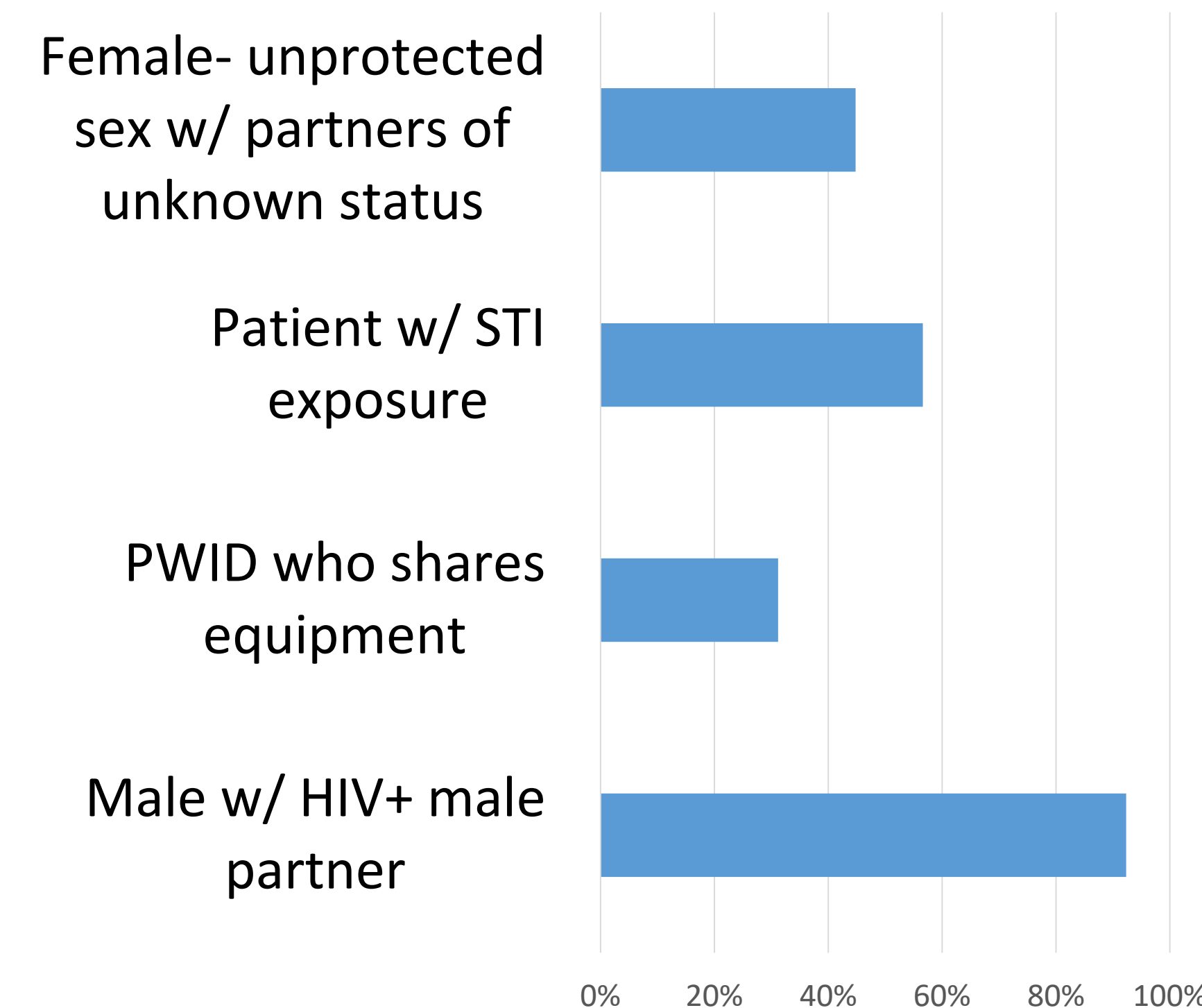
	N = 143
Age (mean \pm SD)	29 ± 2



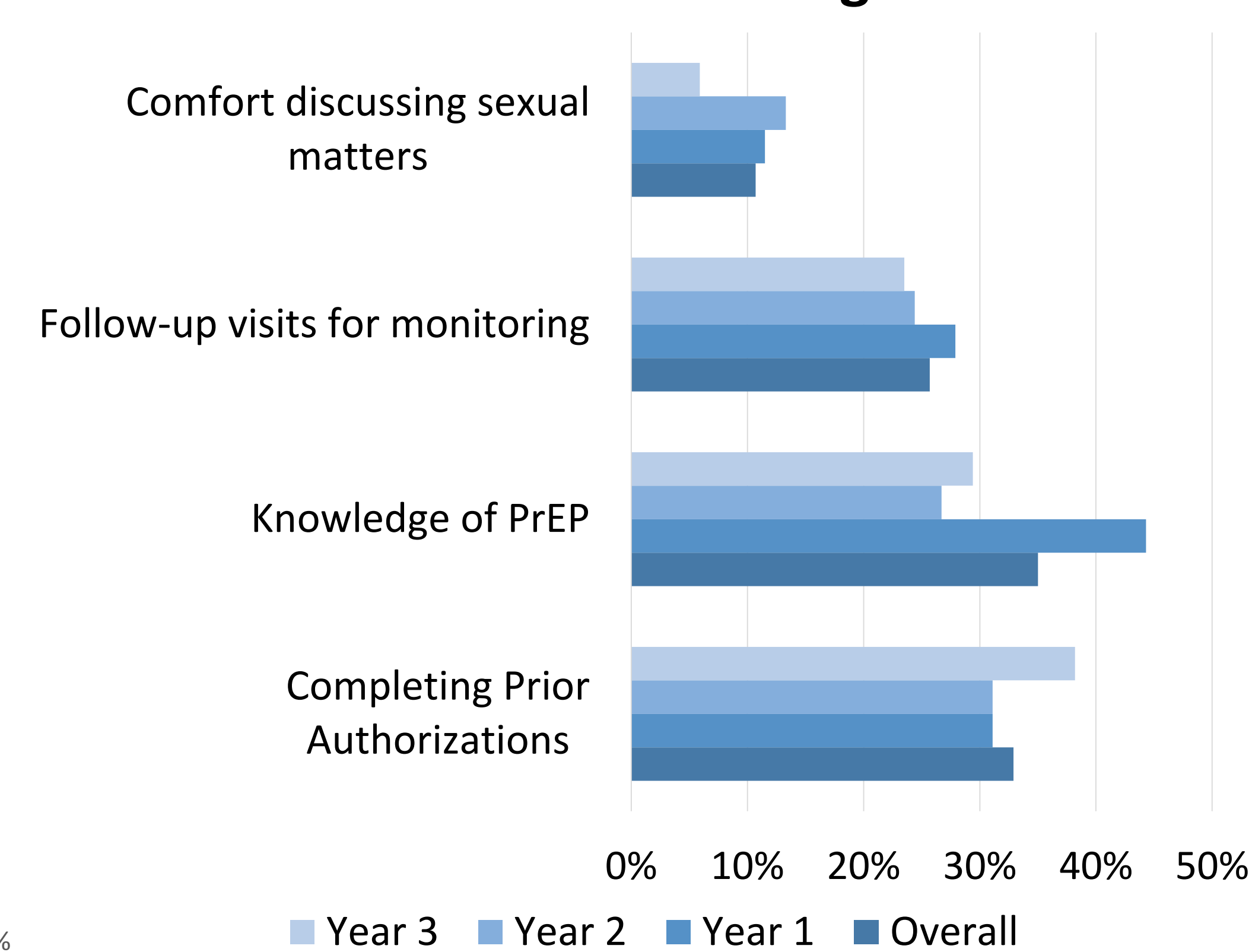
Experience with PrEP Overall and by Year of Residency

	Overall	Year 1	Year 2	Year 3	P-value
	N = 141	N = 61	N = 45	N = 35	
Have been asked about PrEP by a patient	31.9 %	19.7 %	31.1%	54.3%	P-value < .01
Have initiated a conversation about PrEP with a patient	24.3 %	14.8 %	29.5 %	34.3%	P-value = .061
Have prescribed PrEP to a patient	17.9 %	3.3 %	20 %	40 %	P-value < .01
Have referred a patient to PrEP	15.8 %	6.8%	15.6 %	31.4%	P-value < .01

Resident Very/Extremely willing to prescribe PrEP



Barriers to Prescribing PrEP



Results (continued)

Factors Associated with PrEP Prescribing		
Characteristic	Adjusted Odds Ratio (95% Confidence Interval)	P-value
Year of Residency (per year)	3.75 (1.89 to 7.47)	<.01
Perception of adequate knowledge	5.20 (1.01 to 26.7)	.048
Lack of concern about follow-up visits	2.49 (.46 to 13.4)	.287

Evaluating predictors of PrEP prescribing through logistic regression analysis, the estimated odds of prescribing PrEP increased 3.8-fold for each year, reaching 14-fold greater odds in 3rd years residents compared to 1st years, while perceived lack of knowledge remained a significant barrier (adjusted OR=5.20, p =.048) in multivariable logistic regression model.

Discussion

- Overall only 17.9 % of the residents surveyed have ever prescribed PrEP to a patient, knowledge about PrEP was the largest barrier to prescribing PrEP and participants were most likely to prescribe PrEP to a male patient with an HIV+ partner.
- The data suggests a need for further education about PrEP being included in medical training, similar to training on how to take a sexual history.
- Based on residents' responses to willingness to prescribe to specific individuals, further education about PrEP eligibility and Undetectable = Untransmittable (U=U) could be helpful.
- Overall, Drexel Medicine residents had minimal experience discussing and prescribing PrEP to patients, although there are increases by resident year.

Limitations and Future Directions

Limitations:

- Small sample size and unequal distribution between specialties.
- Lack of follow-up data 6 months after survey.

Future Directions:

- Provide continuing PrEP education to residents.
- Staff a PrEP Navigator, who provides support to residents and their PrEP patients.

References

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