



GGD

Amsterdam

Emergent informal use of doxyPEP/PrEP among MSM and transgender and gender diverse people in the Netherlands

Buhari Teker, MD
PhD-student

26 November 2024

WANT
STI-FREE SEX?



IS DOXYPEP
THE ANSWER?

Join the GGD Amsterdam
in the search for effective
STI prevention methods



JOIN



Disclosure of speaker's interest

- None



GGD
Amsterdam

Background



Background (1)

- Doxycycline pre- and post-exposure prophylaxis (doxyPEP/PrEP): prevention of bacterial STIs
 - DoxyPEP: 200 mg within 48-72 hours after sex
 - DoxyPrEP: 100mg daily
- DoxyPEP: reducing risk of syphilis and chlamydia by +/- 80% and gonorrhoea by +/- 20 - 60%
- Targeted prescription could reduce STIs with less antibiotic use
- Increase in population-level antibiotic consumption:
 - Development of antimicrobial resistant (AMR) pathogens
 - Impact the gut microbiome



Background (2)

- Formal use of doxyPEP (i.e., prescribed by a physician): cautiously supported by clinical guidance in the USA, Australia and Germany
- Informal use of doxyPEP (e.g., purchasing online or purchasing over-the-counter):
 - USA, Spain, and Germany: between 7% and 55% among men who have sex with men (MSM) and transgender women
- NL: not recommended or included in guidelines.
 - Informal use unknown



GGD
Amsterdam

Methods



Methods (1)

- Online survey: 26 February 2024 - 6 May 2024
- Recruitment:
 - Advertisements at Centre for Sexual Health Amsterdam
 - Online advertisements



- Before start of survey: general information on doxyPEP/PrEP, including its purpose and use

JOIN THE SEARCH FOR STI-FREE SEX!

IS DOXYPEP THE ANSWER?

Join the GGD Amsterdam in the search for effective STI prevention methods

GGD Amsterdam

JOIN



Methods (2)

- Outcomes:
 - Informal use of doxycycline as either PEP or PrEP
 - Awareness of doxyPEP/PrEP and intention-to-use
 - Determinants of informal use and high intention-to-use doxyPEP/PrEP
- Study population:
 - MSM and transgender and gender diverse people in the Netherlands



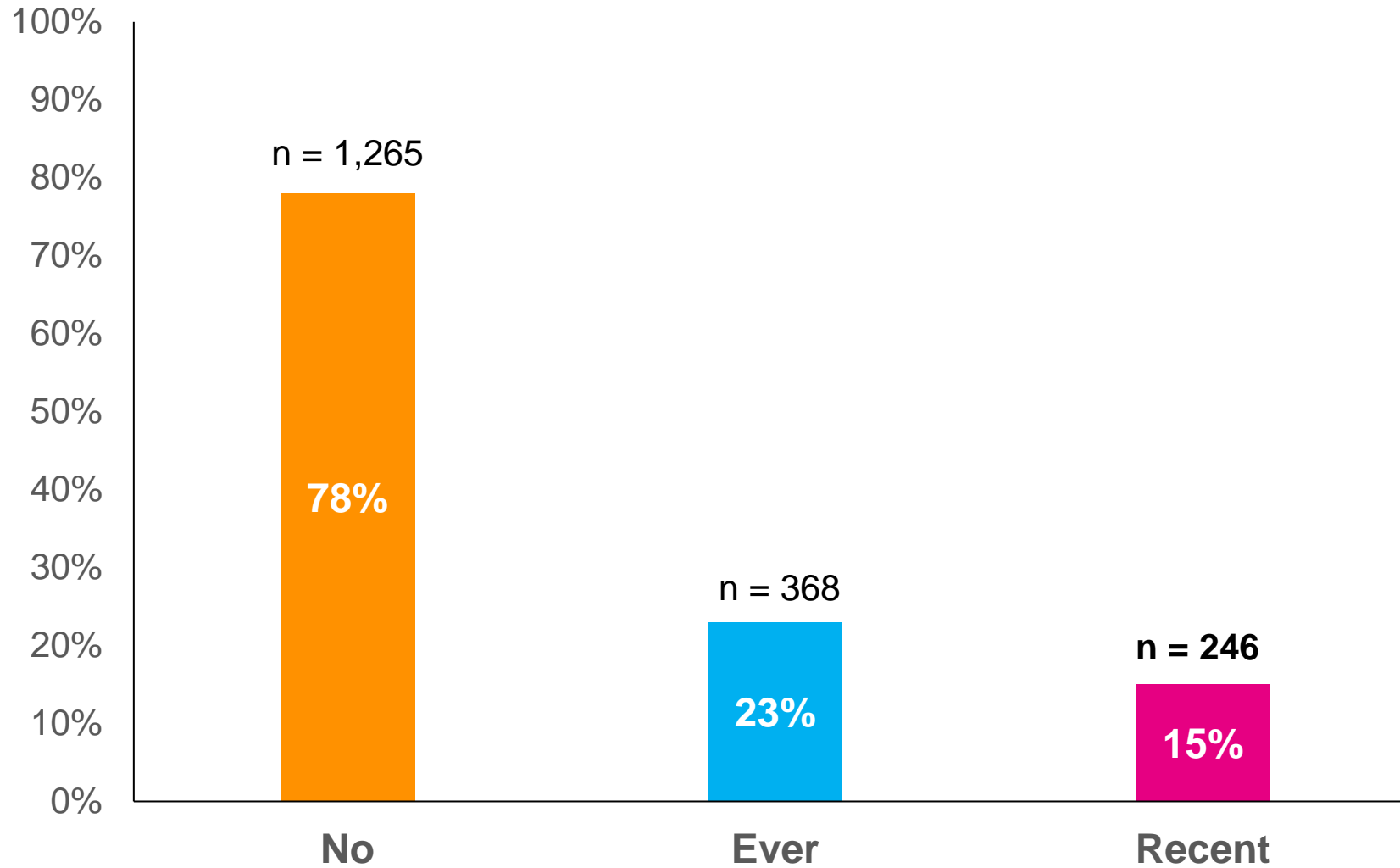
GGD
Amsterdam

Results



n = 1,633

Informal use of doxyPEP/PrEP





	DoxyPEP/PrEP use in preceding 6 months	
	No (n=1,387)	Yes (n=246)
Gender: male	96%	98%
Median age (in years) [IQR]	37 [31-45]	37 [31-44]
Country of birth: the Netherlands	54%	53%
Education level: college/university	63%	62%
Living with HIV	9%	15%
Median no. sexual partners ¹ [IQR]	10 [4-20]	19 [9-30]
Engagement in chemsex ¹	32%	58%

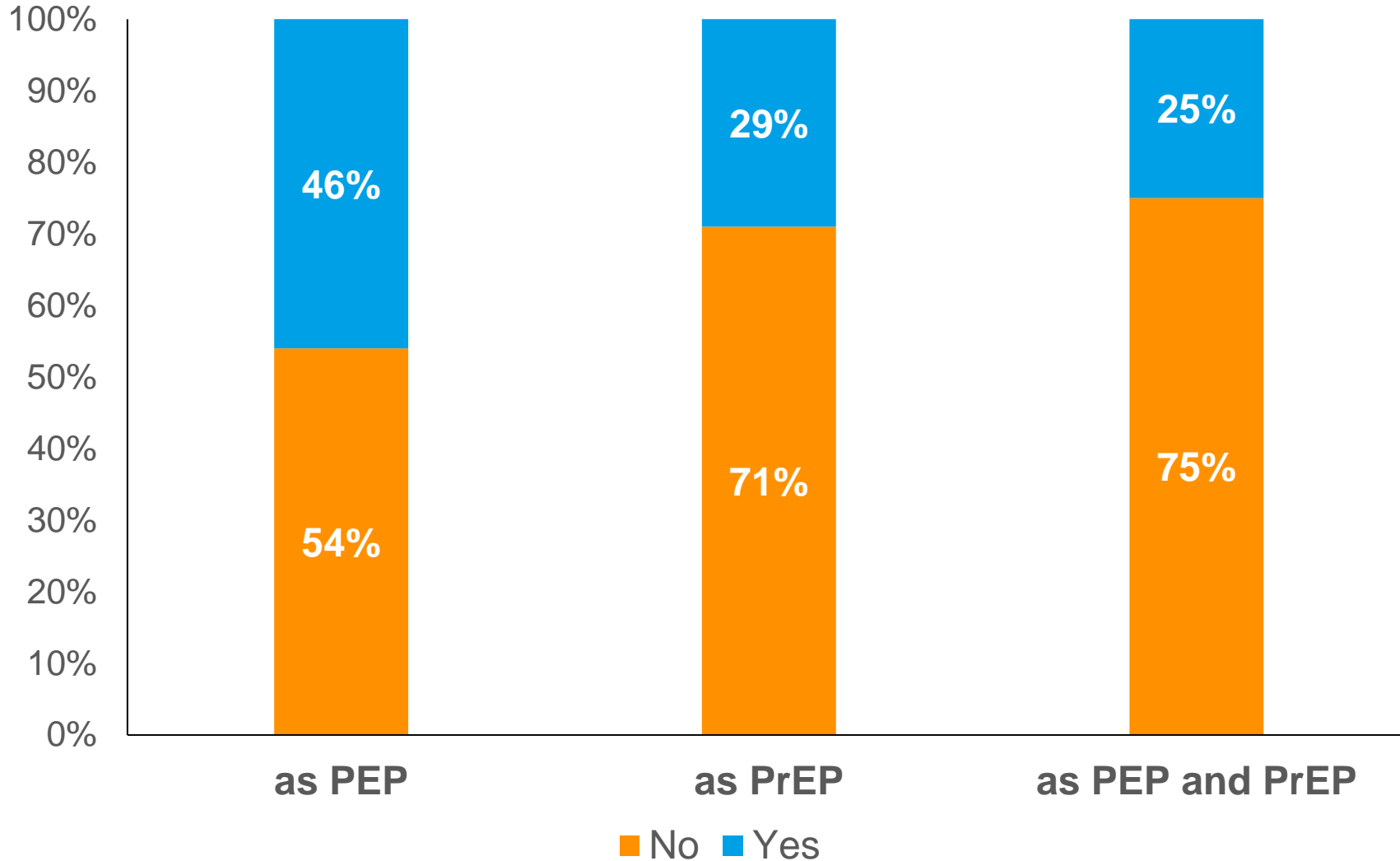
Abbreviations: Doxy, Doxycycline; IQR, interquartile range; PEP, post-exposure prophylaxis; PrEP, pre-exposure prophylaxis

1. In the 6 months before the first consultation.



n = 246

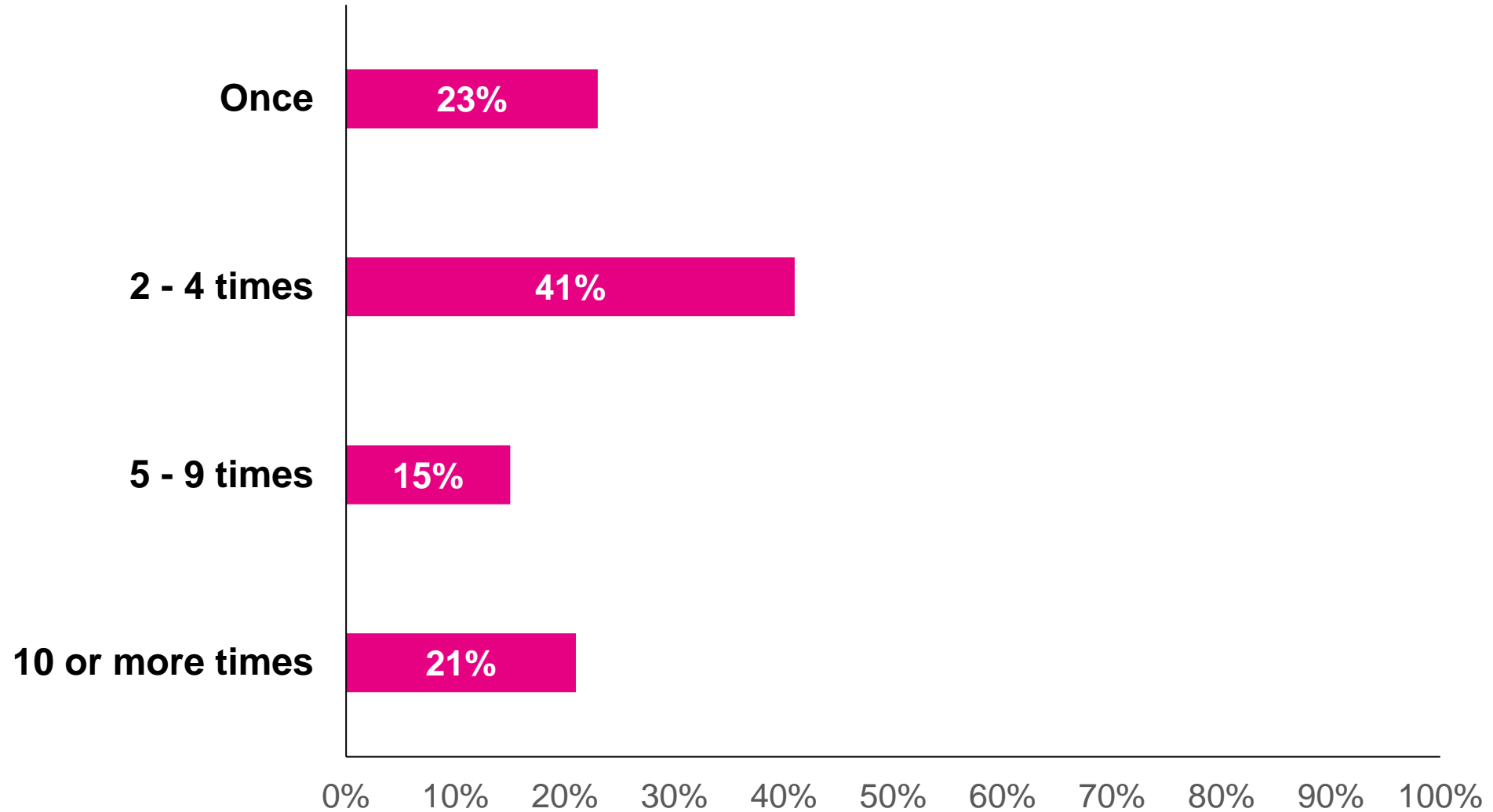
Recent informal use of doxyPEP/PrEP





n = 246

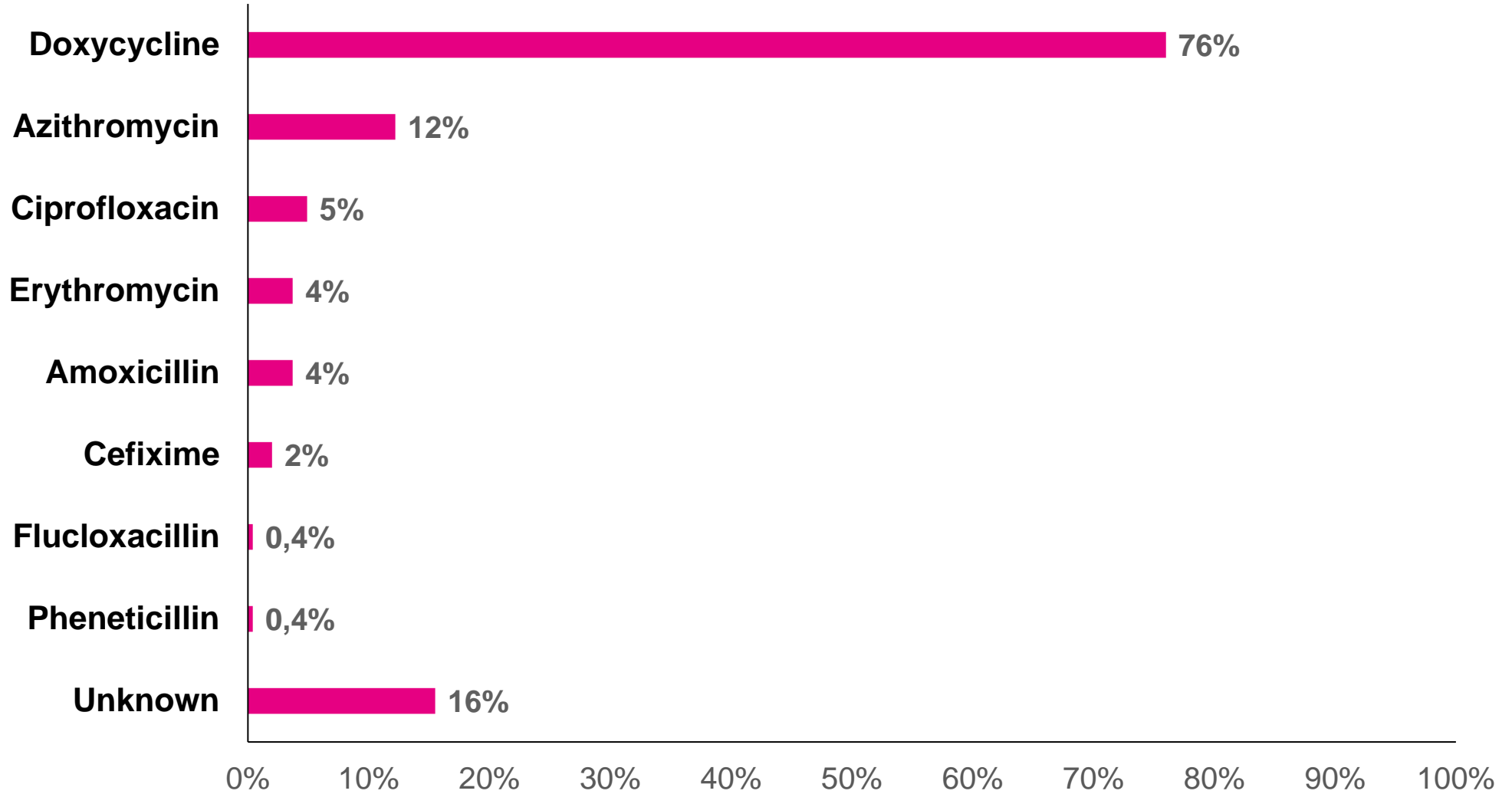
Frequency of recent doxyPEP/PrEP use





n = 246

Antibiotic(s) used

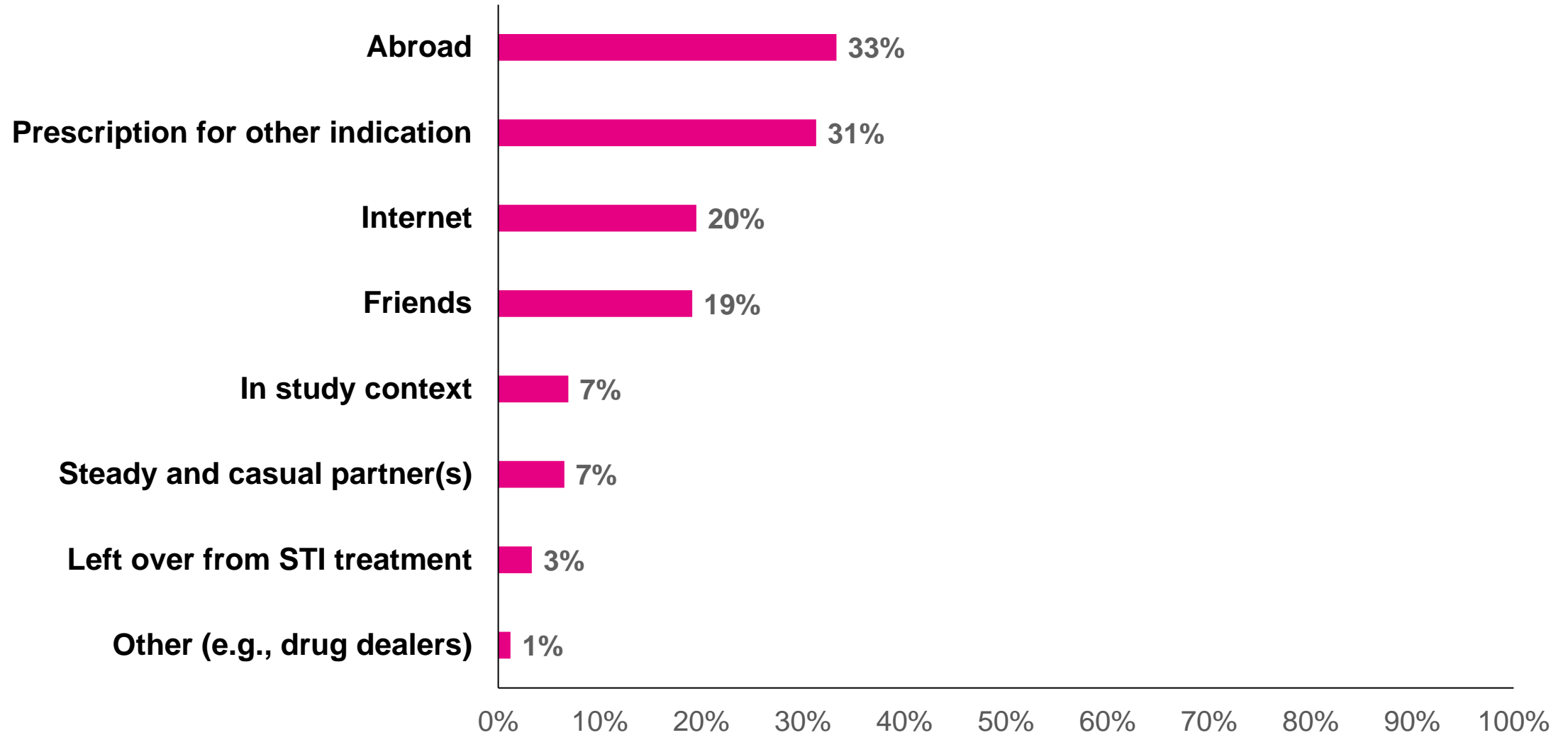


Note: participants could select multiple responses



n = 246

Antibiotics obtained through



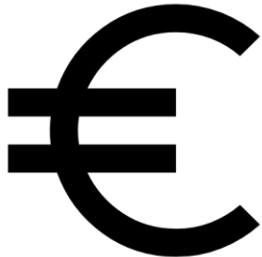
Note: participants could select multiple responses



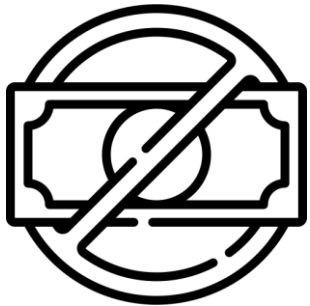
No. of antibiotic pills obtained last time (n = 246)



Median [IQR]: 30 [14-60]



Median [IQR]: 30 [15-50]

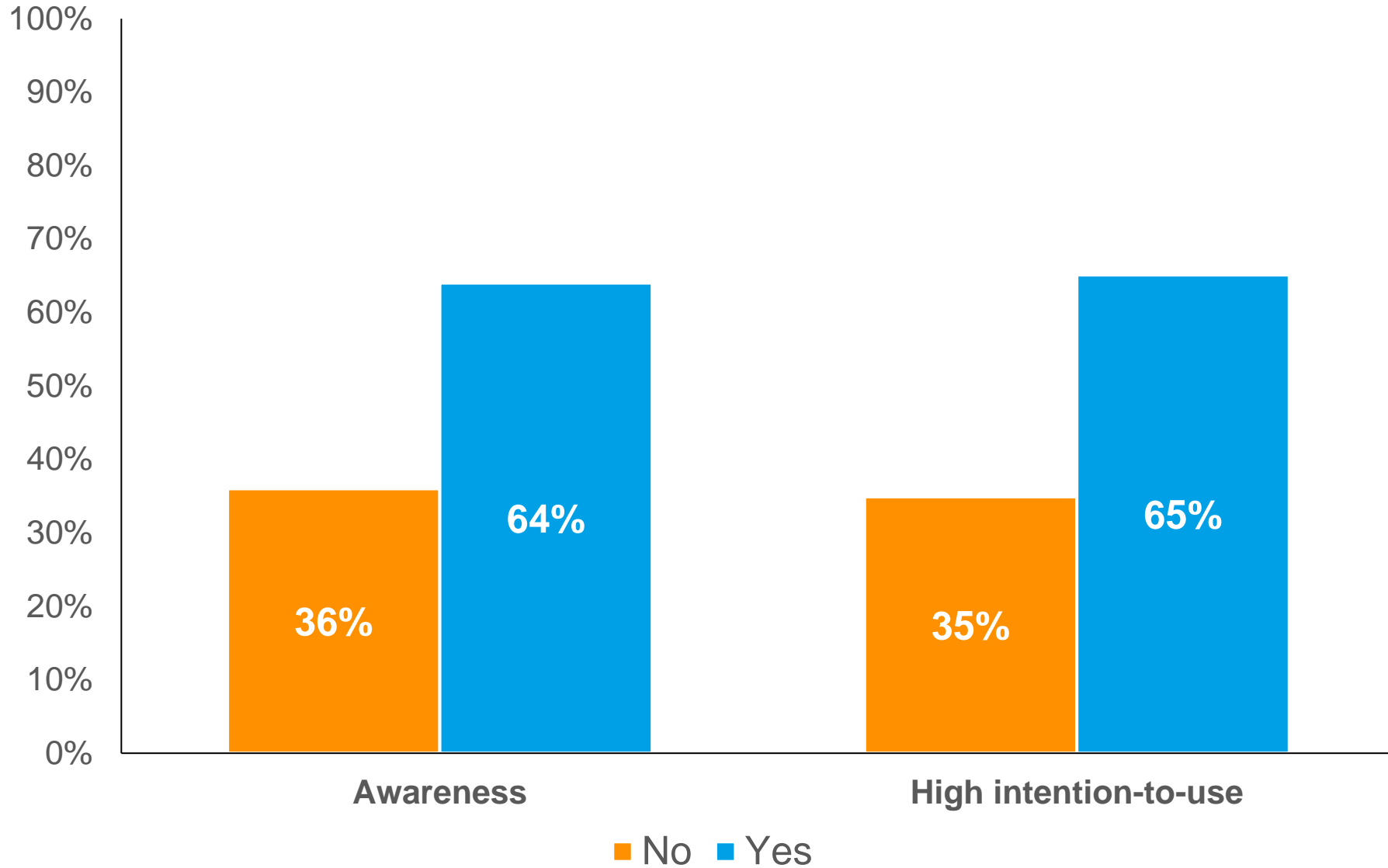


For free: 28%



n = 1,633

Awareness on & high intention-to-use doxyPEP/PrEP





Determinants:	Higher prevalence of ...	
	Recent informal use	High intention-to-use
<i>Characteristics & sexual behaviour</i>		
Use of oral HIV PrEP or living with HIV	↑	↑
≥15 anonymous sexual partners ¹	↑	
Engagement in chemsex ¹	↑	
Employed		↑

¹: in the preceding 6 months



GGD
Amsterdam

Discussion



Discussion

- Informal use of doxyPEP/PrEP: recent 15% and ever 23%
- Majority was aware of doxyPEP/PrEP and had a high intention-to-use
- Other antibiotics than doxycycline were used for doxyPEP/PrEP:
 - Possible interaction with ART-medication
 - Example of interaction: rilpivirine and macrolides
 - Hepatotoxicity or QT interval prolongation



Conclusion



15% recently used doxyPEP/PrEP; high awareness and intent-to-use.



Concerns about misuse, overuse, AMR, and microbiome health.



Urgent need for national/international guidance and research on AMR and microbiome.



Acknowledgement

- All participants of the survey
- Dr. Vita Jongen
- Prof. dr. Henry de Vries, MD
- Prof. dr. Maarten Schim van der Loeff, MD
- Dr. Anders Boyd
- Dr. Elske Hoornenborg, MD
- Dr. Udi Davidovich
- Dr. Janneke Heijne
- Prof. dr. Maria Prins

- Jake Houbiers (<https://communicatienetwerk.amsterdam/leden/jacco-houbiers/>)

Images from: <https://iconify.design/> (No attribution required)