National Survey on the Use of Antibiotics as STI Prophylaxis in the U.S.

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BACKGROUND

- Doxycycline used as post-exposure prophylaxis (**doxyPEP**) reduces the risk of bacterial STIs in people assigned male sex at birth.
- Little is known about current **use of antibiotics as STI prophylaxis** in U.S. populations likely to benefit from doxyPEP.

METHODS

- An **online survey in September 2023** of U.S. adults recruited via sexual networking apps used mainly by gay and bisexual men (GBM).
- Respondents were **asked about the use of antibiotics around the time of sex to prevent bacterial STIs**.

RESULTS

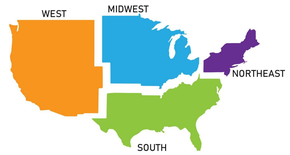
903 respondents

- Mean age, 41 years
- 92% gay or bisexual men
- 7.1% trans/gender diverse
- 19% living with HIV

- 59% White
- 23% Black
- 5% Asian/Pacific Islander
- 2% Native American
- 6% Multiracial
- 13% Latinx/Hispanic

- 60% private insurance
- 22% Medicare/Medicaid
- 8% no insurance

- 52% ever PrEP users
- 43% current PrEP users



From all 50 states + DC

22% West
30% South
18% Midwest
23% Northeast

Factors associated with using STI prophylaxis in past year (bivariable log-binomial regression)

Variable	Prevalence ratio (CI)	P-value
Currently using HIV PrEP	2.66 (1.94-3.66)	<0.001
Ever used HIV PrEP	2.09 (1.49-2.94)	<0.001
Privately insured (compared to publicly insured)	2.25 (1.09-4.67)	0.029
Income greater than $60,000 per year	1.95 (1.44-2.65)	<0.001
Ever diagnosed with STI	3.25 (2.22-4.75)	<0.001
Diagnosed with multiple STIs in past year	2.47 (1.82-3.35)	<0.001
More than 10 anal sex partners in past year	3.15 (2.31-4.30)	<0.001
Receptive & insertive sex with casual partners in past year (compared to only insertive sex)	2.03 (1.22-3.39)	<0.001
Group sex in past year	4.11 (2.70-6.25)	<0.001
Used drugs before or during sex in past year	1.60 (1.10-2.33)	0.014

Almost all were interested in STI prophylaxis and 21% had ever used it.

However, **some people had used medications and dosages not recommended.**

Figure 1. Interest, awareness and use of STI prophylaxis

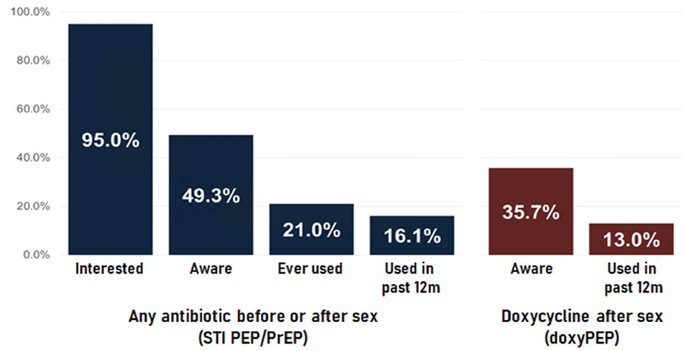


Figure 2. Sex acts where STI prophylaixs was used
with casual partners in the past 12 months, among people using STI prophylaxis

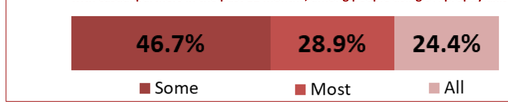


Figure 3. Medications used as STI prophylaxis
among people reporting any lifetime antibiotic STI prophylaxis use

Top reasons for using or interest in STI prophylaxis

Not wanting to get an STI	87%
Peace of mind	78%
To feel more comfortable having sex	60%
To prevent passing on an STI to my regular	57%
To prevent passing on an STI to my casual	56%
To protect my community	54%
Not wanting to use a condom	52%
Partner not wanting to use a condom	33%
Prevent taking different antibiotic for STI diagnosis	31%

Top concerns related to using STI prophylaxis

Worried about antibiotic resistance	51%
Cost of antibiotics	47%
Long-term side effects	42%
Short-term side effects	36%
Inconvenience of getting a prescription	33%

DoxyPEP dosing practices

Of those reporting doxyPEP use in the past 12 months:

- 21% had used a dosage less than a single 200mg dose
- 49% had taken doxyPEP within 24 hours of sex
- 41% had taken doxyPEP within 24-72 hours of sex
- 9% had taken doxyPEP longer than 72 hours after sex

CONCLUSIONS

- Nearly **all respondents were interested** in using antibiotic STI prophylaxis, and **one in five had used it before**.
- Motivations for using STI prophylaxis and contexts in which respondents anticipated using it varied, with results suggesting that **GBM will preferentially use doxyPEP in situations where they perceive it will be most beneficial.**
- Medications and dosages used for STI prevention varied and included regimens not recommended for use as STI prophylaxis.

Our study highlights the need for prompt guidance on effective doxyPEP dosing and timely efforts to monitor real-world use.

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