

Knowledge, Attitudes, and Practices about Antimicrobial Resistance in Sexually Transmitted Infections in Men Who Have Sex with Men in Hong Kong: A Cross-Sectional Study

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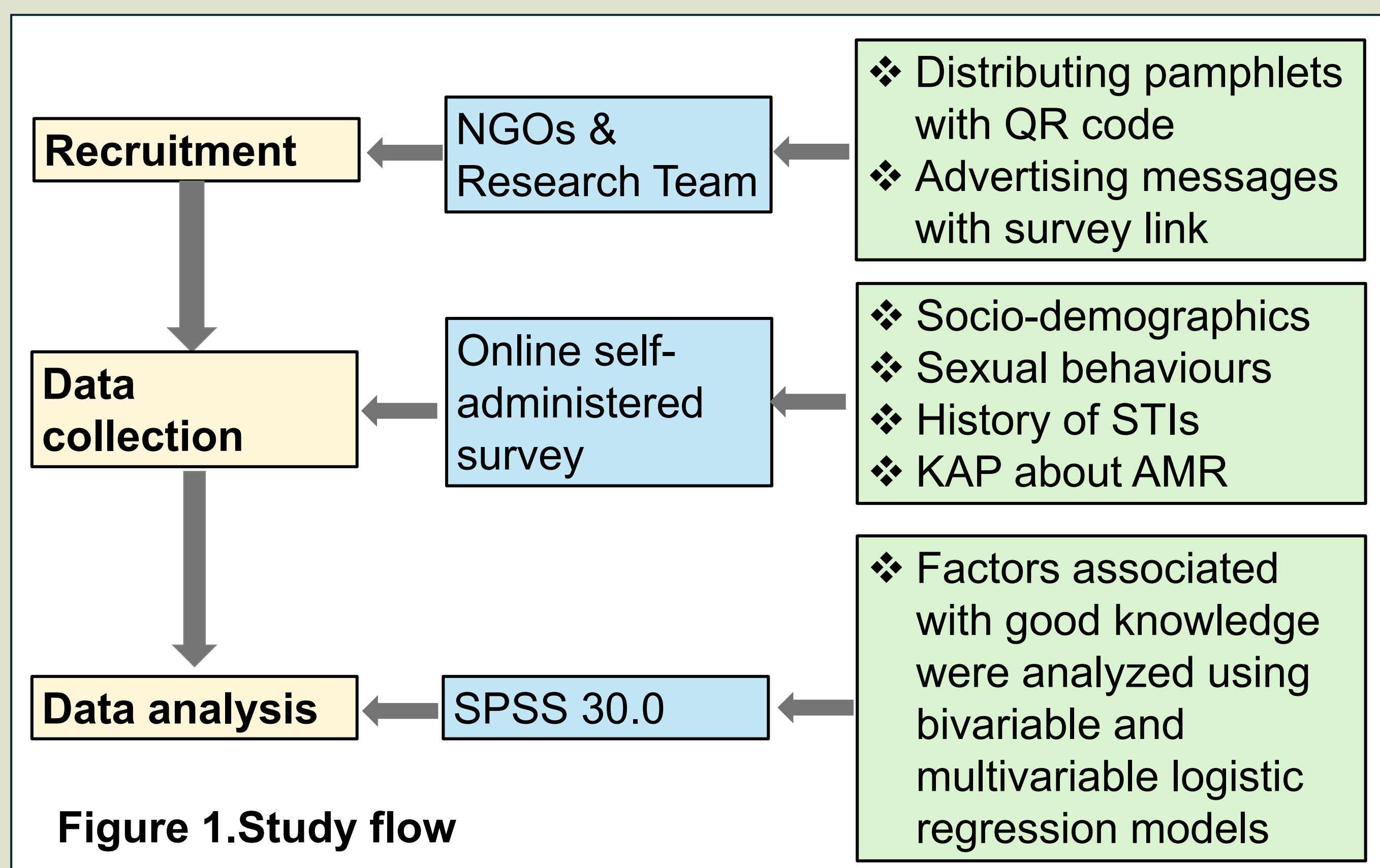
BACKGROUND

- ❖ Understanding knowledge, attitudes, and practices (KAP) towards antimicrobial resistance (AMR) is crucial for appropriate antimicrobials use. However, data on KAP regarding AMR in sexually transmitted infections (STIs) in men who have sex with men (MSM) is insufficient.

METHODS

Study design and participants

- This is a cross-sectional study conducted from 02/2025 to 10/2025 (Figure 1).
- Adult MSM living in Hong Kong were recruited.



Definition

- For knowledge-related questions, a score of “1” was given for correct answers, and a score of “0” was given for incorrect or “don’t know” answers. A total of 9 items were used to assess knowledge.
- The raw knowledge score (0-9) was transformed to percentage score (0-100).
- The total scores of <80 and ≥80 were categorized as general level and good level for Knowledge, respectively^[1].

CONCLUSIONS

- ❖ Most MSM diagnosed with STIs had received antimicrobials treatment and completed the prescribed course, suggesting a lower individual risk of AMR. However, despite widespread concern about AMR, most participants demonstrated inadequate AMR knowledge in STIs, indicating a knowledge-practice gap that should be addressed in the MSM community.
- ❖ Interventions to promote appropriate antimicrobial use in STIs treatment could target MSM with lower education level and no history of HIV PrEP use.

Reference: [1] Yang C, Xie J, Chen Q, et al. Knowledge, Attitude, and Practice About Antibiotic Use and Antimicrobial Resistance Among Nursing Students in China: A Cross Sectional Study. *Infect Drug Resist.* 2024;17:1085-1098.

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RESULTS

- A total of 406 MSM have completed the survey, with a median age of 35 years (interquartile range: 30-41), 99% were Chinese, 85% had attained tertiary education or above, and 96% were single/never married.

Knowledge

- About 75% recognized the importance of completing antimicrobial treatment for STIs. Approximately 47% were unaware that AMR bacteria can spread between individuals, and 44% could not recognize the treatment challenges posed by AMR. About 43% demonstrated good knowledge.

Factors associated with knowledge

- MSM who had attained tertiary education or above, were single/never married, had non-regular sex partners in the past 6 months, and had a history of HIV pre-exposure prophylaxis (PrEP) use were more likely to have good knowledge ($P<0.05$) (Table 1).

Table 1. Factors associated with good knowledge (N=406)

Items		Knowledge		Bivariable ^a	Multivariable ^b
		General n (%)	Good n (%)	OR (95%CI)	aOR (95%CI)
Education	Secondary or below	50 (83%)	10 (17%)	ref	ref
	Tertiary or above	180 (52%)	166 (48%)	4.61 (2.27-9.39) *	4.04 (1.95-8.36) *
Marital status	Married/divorced/separated/civil union	16 (84%)	3 (16%)	ref	ref
	Single/never married	214 (55%)	173 (45%)	4.31 (1.24-15.04) *	3.61 (1.00-13.05) *
Had sex with male non-regular sex partners in the past 6 months	No	74 (67%)	37 (33%)	ref	ref
	Yes	146 (52%)	135 (48%)	1.85 (1.17-2.93) *	1.62 (1.00-2.63) *
Ever tested for STI	No	48 (74%)	17 (26%)	ref	ref
	Yes	182 (53%)	159 (47%)	2.47 (1.36-4.46) *	1.75 (0.93-3.30)
Ever taken HIV PrEP	No/don't know	162 (63%)	97 (37%)	ref	ref
	Yes	68 (46%)	79 (54%)	1.94 (1.29-2.93) *	1.66 (1.07-2.59) *

* $P<0.05$, aOR adjusted odds ratio, CI confidence interval, STIs sexually transmitted infections, PrEP Pre-exposure prophylaxis;

a. Bivariable logistic regression model, only factors significantly associated with good knowledge were included in the table;

b. Multivariable binary stepwise logistic regression model(backward-LR).

Attitude

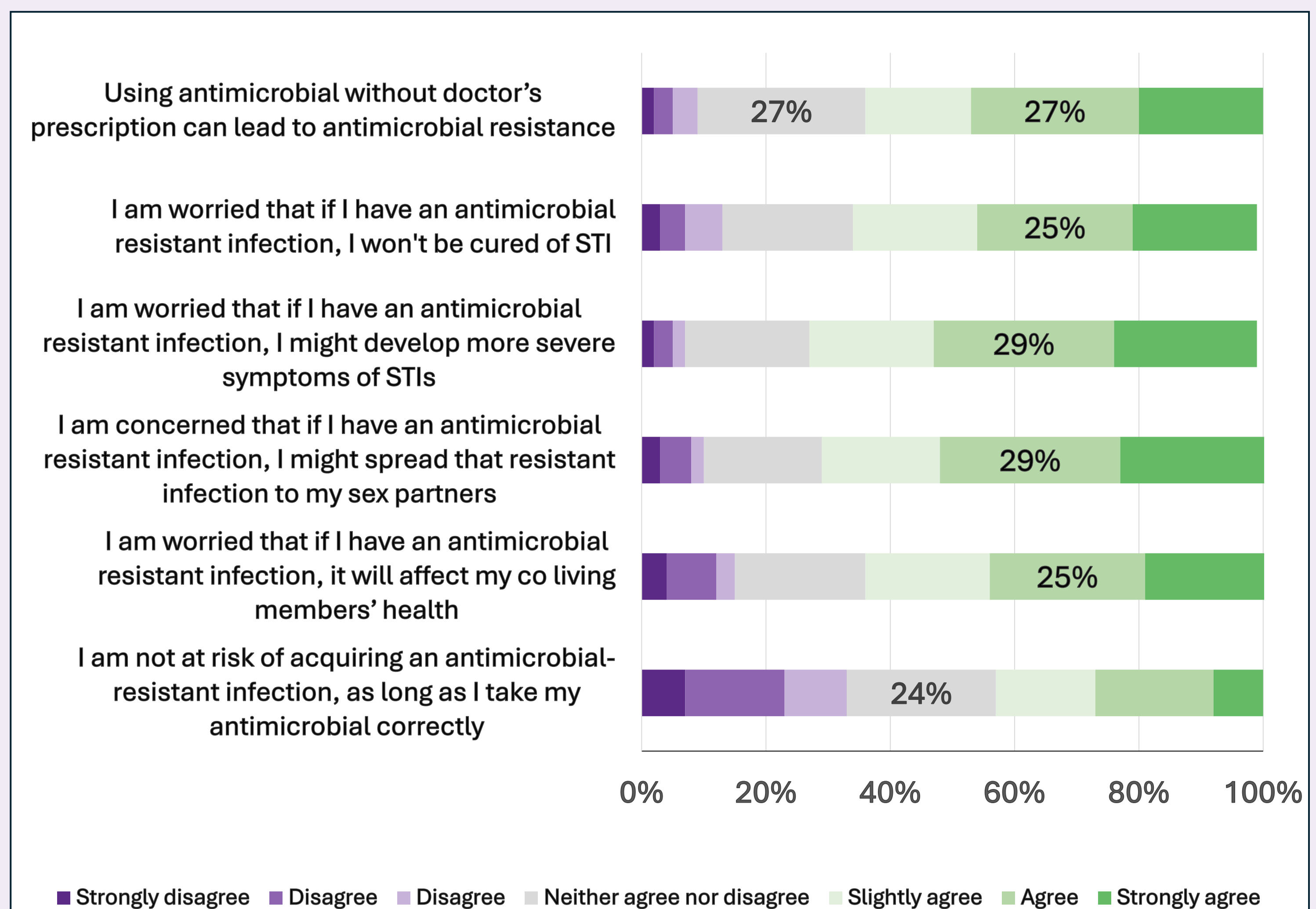


Figure 2. The attitude towards antimicrobial resistance in sexually transmitted infections in MSM (N=406)

Practice

- About 64% (90/141) of STIs-diagnosed participants reported having taken antimicrobials, with 99% completing treatment, and 92% consulting a doctor before their last antimicrobials use.