

Preferences and Willingness to Use Pre-Exposure Prophylaxis for HIV Among Men Who Have Sex With Men in Mainland China and Hong Kong

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Background

- Pre-exposure prophylaxis (PrEP) uptake remains low in mainland China and Hong Kong.
- Only oral PrEP is currently available, and oral PrEP availability is still limited and only available through the private sector.
- We aimed to examine preferences for different PrEP modalities among men who have sex with men (MSM) in mainland China and Hong Kong.

Methods

- We conducted a cross-sectional online survey from May to November 2022 in mainland China and Hong Kong.
- Eligible participants were aged ≥ 18 years, identified as MSM and self-reported HIV-negative or unknown.
- Random forest models and SHAP (SHapley Additive exPlanations) analysis were used to identify key factors influencing preferences for six PrEP options: **daily oral, on-demand oral, monthly oral, 2-monthly injectable, 6-monthly injectable, and implant PrEP**.

Results

- A greater proportion of participants from mainland China expressed an interest in **on-demand PrEP** compared to those from Hong Kong (55.7% vs. 48.1%, $p < 0.01$), while more participants from Hong Kong expressed an interest in **monthly oral PrEP** (53.2% vs. 47.3%, $p = 0.02$).
- Willingness to use **non-oral options** was lower. 2-monthly injectable PrEP expressed an interest by 21.1% in mainland China vs. 15.4% in Hong Kong ($p < 0.01$).
- Among Hong Kong participants, **condom use frequency** and **migration status** were important predictors of willingness to use both **oral and injectable PrEP** options. **Peer influence** played a more significant role for mainland Chinese participants.
- Current PrEP use status** and **PrEP attitudes** were important predictors.
- Individuals who are willing to use **six-monthly injectable PrEP** tended to dislike the **two-monthly option**.

Figure 2. Radar and Bar Charts Comparing Preferences for Different PrEP Options in Mainland China and Hong Kong

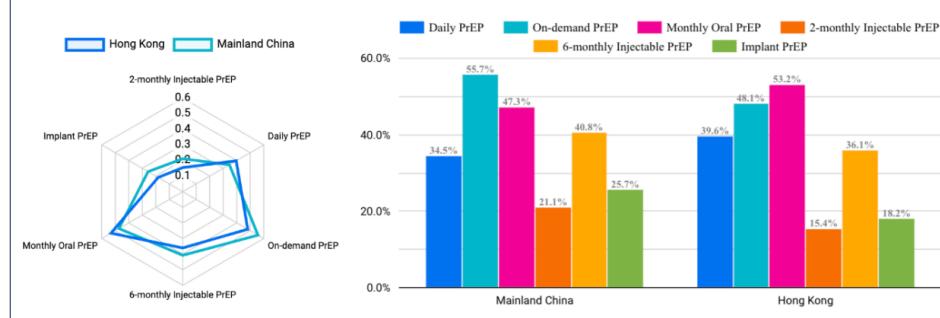
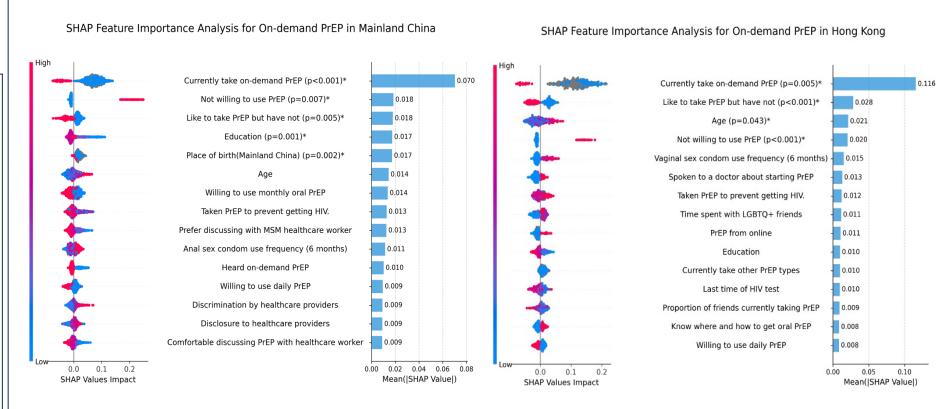


Figure 3. Comparison of On-demand PrEP between Mainland China and Hong Kong.



Conclusion

- While oral PrEP remains the preferred choice among MSM in both mainland China and Hong Kong, there was diversity in preferences for different PrEP options.
- In Hong Kong, condom use frequency during vaginal sex showed strong positive associations with willingness to use various PrEP modalities, while this factor was less influential in mainland China.
- These findings highlight the importance of tailoring PrEP implementation strategies between Hong Kong and mainland China.

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