

# Adherence of MSM participating in a partially self-financed pilot PrEP project and its association with behavioural risk profiles

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## Background

HIV transmission in men who have sex with sex (MSM) accounts for a significant proportion of incident infections in Asia and the Pacific. Their access to pre-exposure prophylaxis (PrEP) with tenofovir disoproxil fumarate/emtricitabine (TDF/FTC) remains extremely limited. In Hong Kong high cost of patented TDF/FTC and the uncertain degree of community acceptance are main obstacles impeding PrEP programme development. An effective and practicable service model is urgently needed.

## Materials and Methods

A pilot PrEP clinic was set up at a teaching hospital in Hong Kong to prescribe daily TDF/FTC to high risk MSM who were required to pay 13% of the actual drug cost over a 30-week project period. Monitoring of adherence, behavioural risk and sexually transmitted infections (STI) was made using online diary, point-of-care testing/sampling and the administration of tablet-based questionnaires. Overall drug adherence was measured by the proportion of the number of days of use of TDF/FTC. Coverage of unprotected sex was arbitrarily defined by the use of two daily tablets taken before and after condomless anal intercourse (CLAI).

Eligibility criteria	
✓ Adult MSM	And either one of the followings has occurred in the past 6 months: <input type="checkbox"/> Diagnosis of STI <input type="checkbox"/> Having sex partner(s) who were HIV+ or with unknown HIV status <input type="checkbox"/> Engagement in chem-sex <input type="checkbox"/> Having more than one sex partner
✓ Hong Kong residents	
✓ PrEP-naïve	
✓ Tested HIV-negative within 3 months	
✓ History of condomless sex within 6 months	
✓ Inclination to have condomless sex in coming months	

chem-sex: sexualised use of psychoactive substances

## Results

Potentially eligible HIV-negative PrEP naïve MSM were recruited from collaborating community organisations and HIV services, or self-referred through an online platform. Between October 2017 and June 2018, 71 MSM (median age: 32 years; interquartile range: 27-40 years) joined the project following eligibility assessment.

Risk profiles in the preceding 6 months:

- previous diagnoses of STI: 18%
- chem-sex: 24%

Baseline STI positive rate: 15%

- syphilis: 9%
- urethral gonorrhoea: 3%
- urethral chlamydia: 4%

Over a follow-up period of 5146 person-days with diary data:

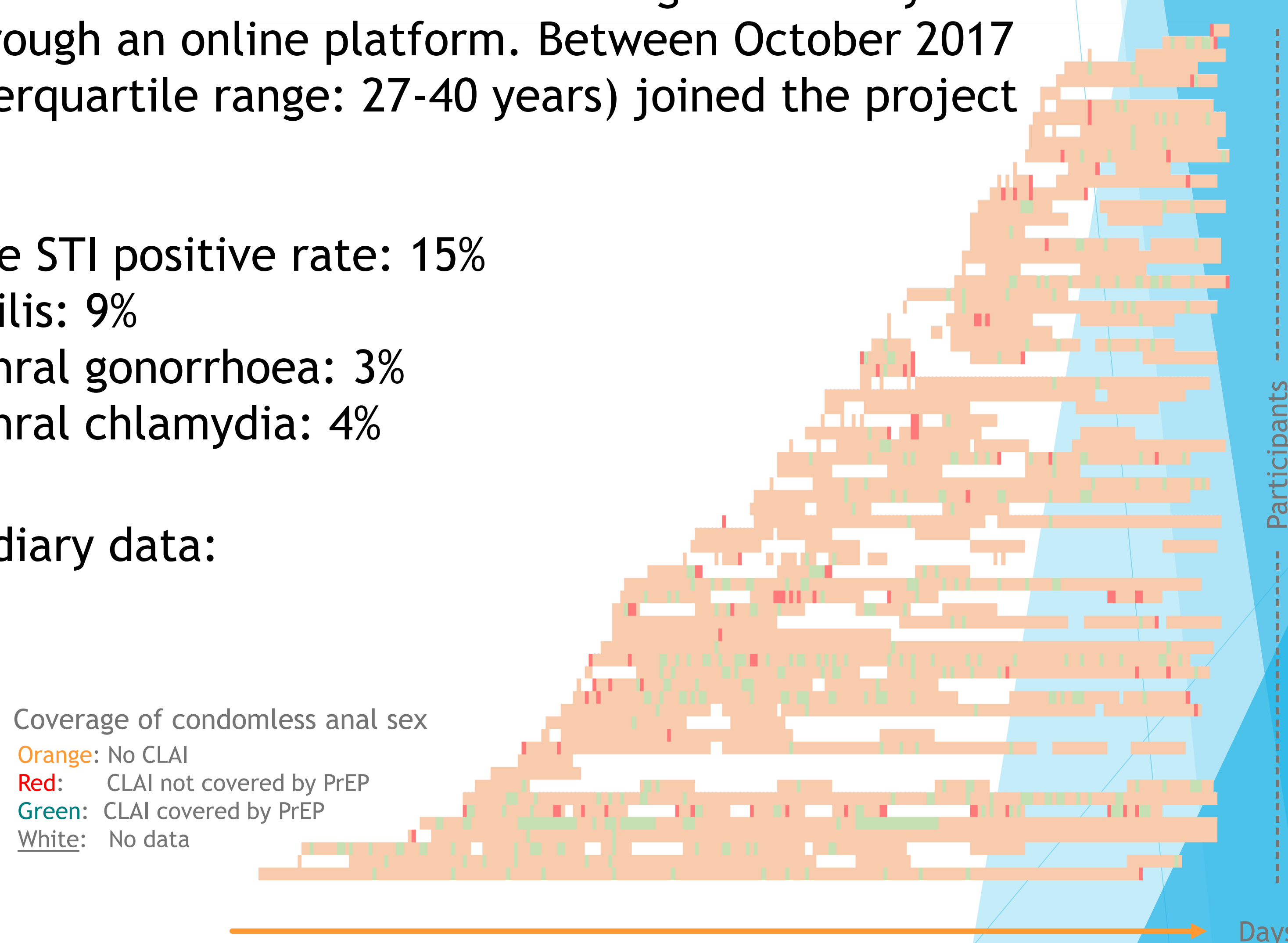
- totally 746 person-days with anal sex recorded
- 68% were CLAI

- ❖ Adherence to follow-up visits: 81%
- ❖ Overall drug adherence: 87%
- ❖ Coverage of CLAI: 82%

- No HIV seroconversions had occurred (exact binomial 95% confidence interval: 0-5.06%)
- No association was found between adherence and chem-sex behaviours
- Those reporting CLAI had higher adherence but the difference did not reach statistical significance

## Conclusions

A partially self-financed mode of PrEP delivery could be a feasible service model, as supported by high adherence of risk-taking MSM irrespective of risk profiles. There was high though imperfect coverage of condomless sex acts. The service has enabled regular monitoring of behavioural risk and STI/HIV to be implemented with the use of point-of-care testing and online diaries.



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