

# Acceptability of HIV Pre-exposure prophylaxis (PrEP) and associated risk compensation in men who have sex with men (MSM) accessing GU services

Authors: Caroline Thng, Sarah Thorpe, Gabriel Schembri

Affiliation: Manchester Centre for Sexual Health, Central Manchester University Hospitals NHS Foundation Trust

## Background

- HIV prevention strategies amongst men who have sex with men (MSM) remain an important area of research.
- MSM account for 53% of incident infection of HIV
- Estimated cost saved per 1 onward transmission = £500,000
- A large multinational, randomised, double blind, placebo controlled, clinical trial (iPrEx) of daily oral antiretrovirals (tenofovir [TDF] and emtricitabine[FTC]) has demonstrated the safety and efficacy of daily TDF/FTC in reducing HIV acquisition in a men who have sex with men (MSM) population exposed to HIV through sexual transmission. The risk reduction was estimated to be 21% in participants who were <90% adherent to the treatment and up to 73% in those who were >90% adherent
- There are current proposals for a national multicentre trial (PROUD) to see if PrEP will work in the UK setting

## Aim

- We aimed to survey the proposed target population to establish whether there is a demand for PrEP
- We gathered data regarding
  - acceptability of the treatment,
  - frequency of monitoring and the likelihood of adherence
  - possible risk compensation behaviours which may emerge from taking PrEP

## Method

- Participants identified according to criteria:
  - Inclusion criteria
  - Individuals aged 18 or over.
  - Men who have sex with men
  - HIV negative
  - MSM who practice unprotected receptive anal intercourse (URAI)
  - Participants offered patient information leaflet and questionnaire
- Questionnaire completed in clinic and posted into a sealed box

## Results

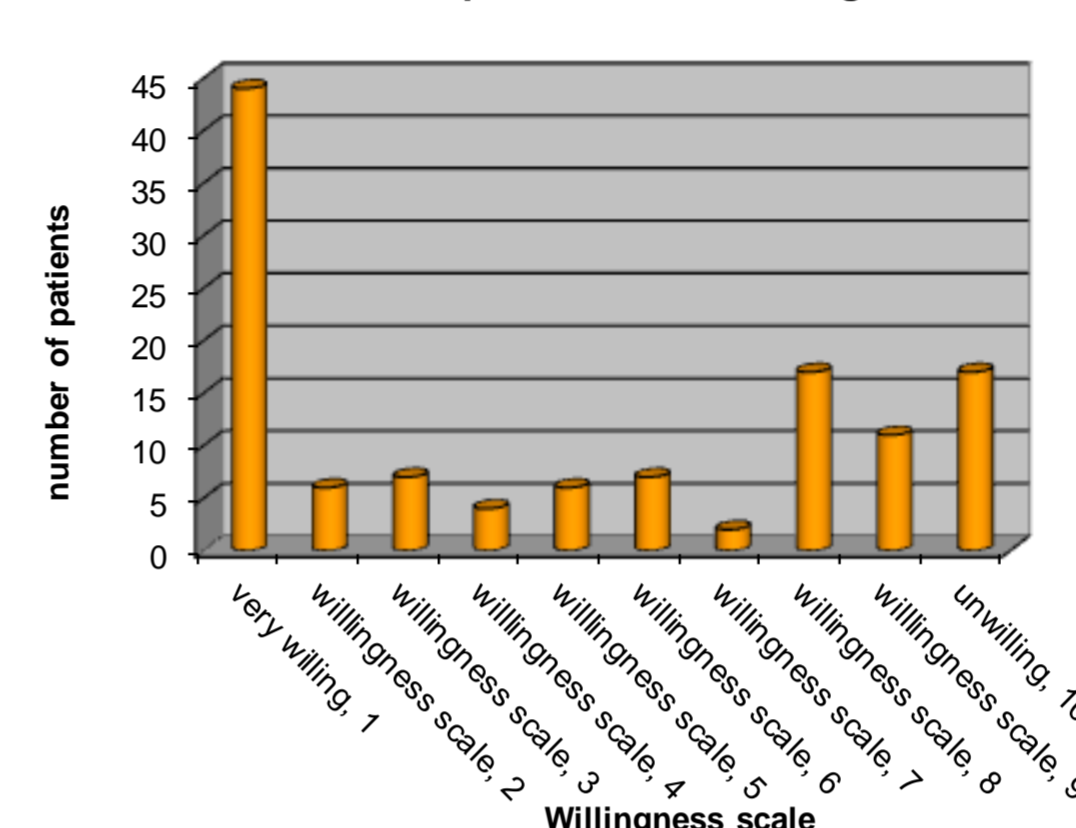
### Patient demographics

- The study ran from 09/11/2011 to 16/02/2012
- A total of 148 questionnaires were given out and 121 questionnaires were returned (return rate 81.8%)
- During that time, 4600 patients attended the clinic
- Of that total, 2779 (60.4%) were male patients of whom 502 (18.1%) of male patients were MSM
- 99/121 (81.8%) of patients were of White Caucasian ethnicity (see Graph 1)
- 91/177 (77.8%) of participants had a negative HIV test in the last 12 months (see Graph 2)
- The perception of risk for acquisition of HIV was skewed towards 'low risk' possibly demonstrating a difference in perceived risk of HIV infection compared to that perceived clinically (Graph 3)
- The number of partners in the last 12 months ranged from 0 to >100, with an average of 9.6 partners and a mode of 4 sexual partners in the last 12 months. (Graph 4)
- 5/121 (4.1%) said they never used condoms while 42/121 (34.7%) said they used condoms all the time.
- 74/121 (61.2%) used condoms inconsistently (Graph 5).
- Hence, the sexual activity of our target population reflects an 'at risk' group which would be appropriately targeted for PrEP

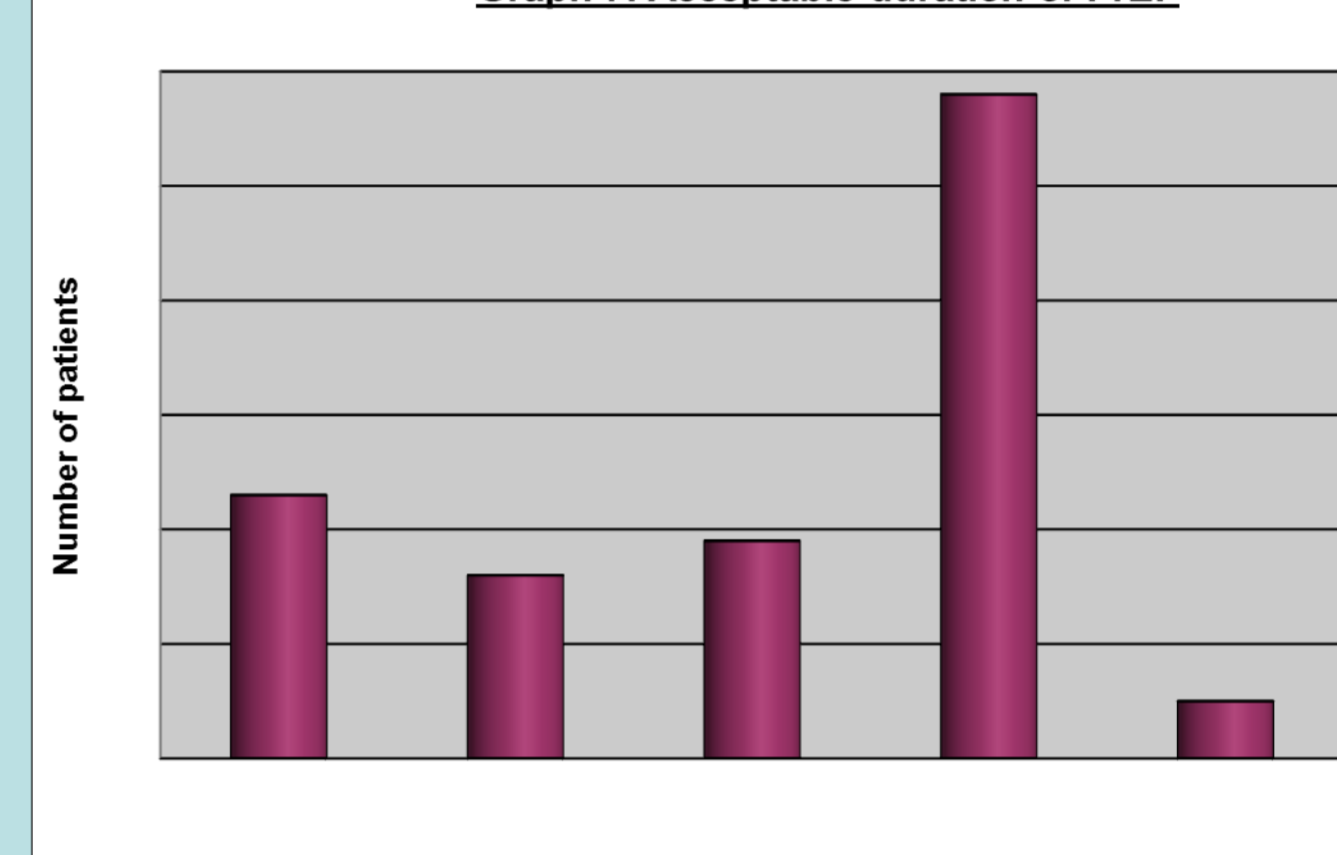
### Attitudes towards PrEP

- 44/121 (36.4%) said they would be very willing to take PrEP and 17/121 (14%) said they would not take PrEP (Graph 6)
- An overwhelming majority of patients 93/116 (80.2%) felt that daily PrEP would be the preferred option of which 58/93 (62.4%) felt they would continue it for more than 6 months. Coital PrEP would be the preferred option for 23/116 (19.8%) of participants. (Graph 7)

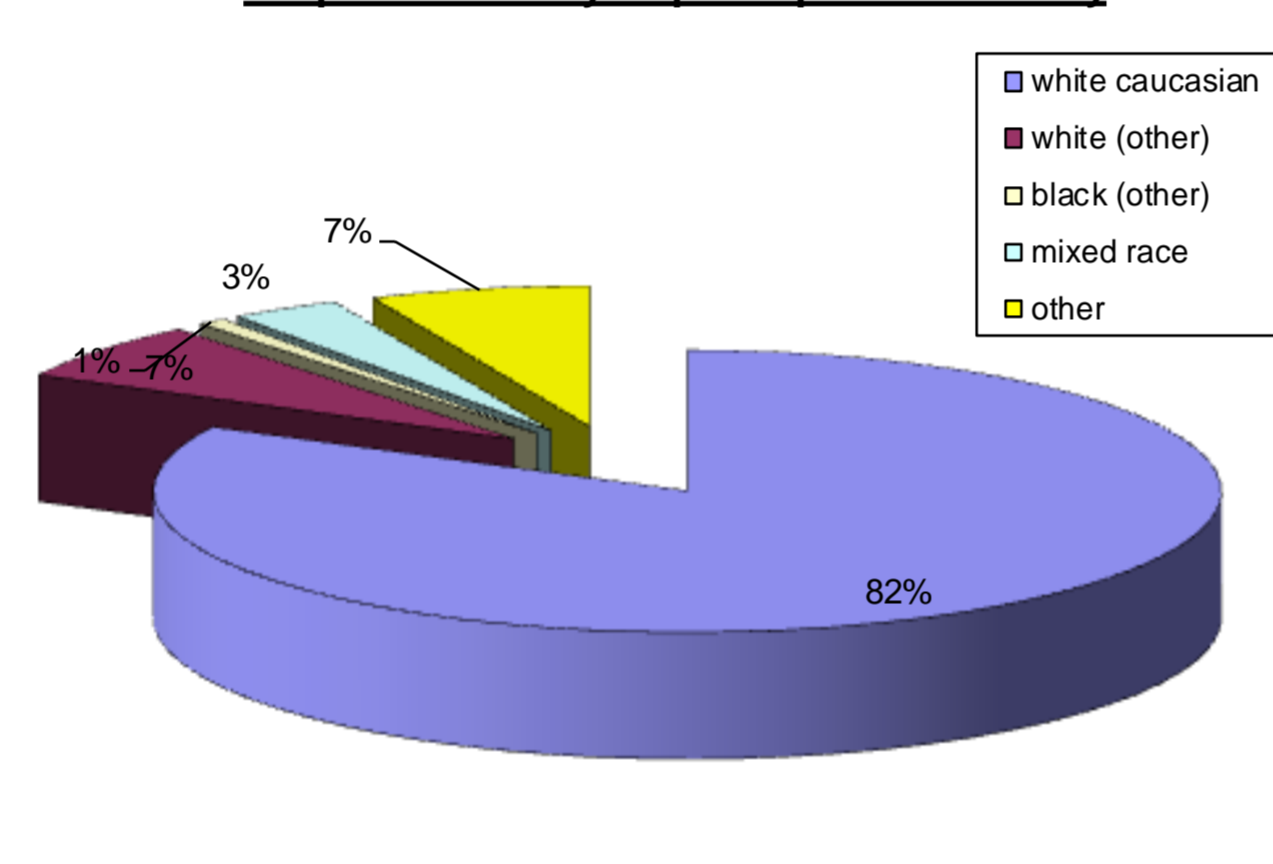
Graph 6: Patients' willingness to take PrEP



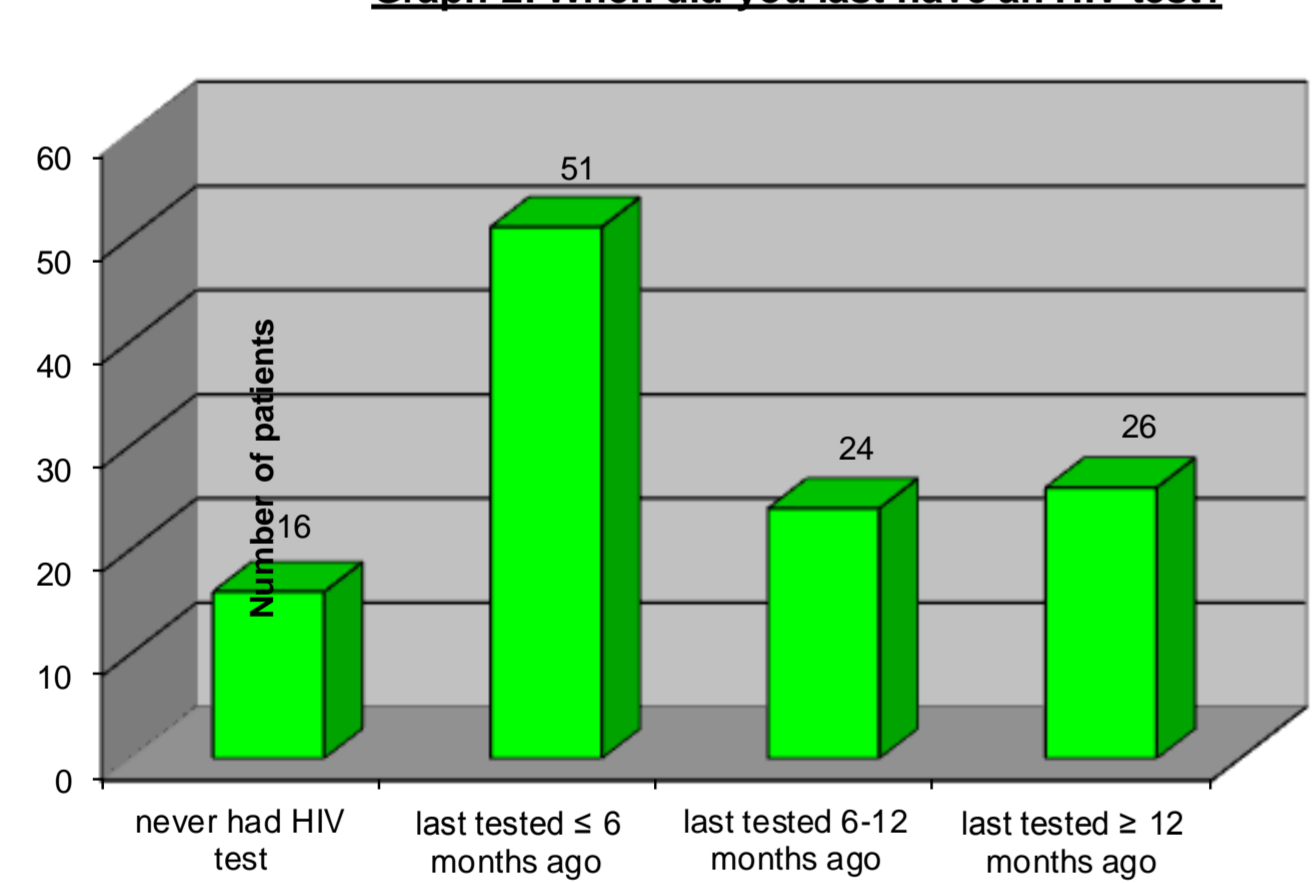
Graph 7: Acceptable duration of PrEP



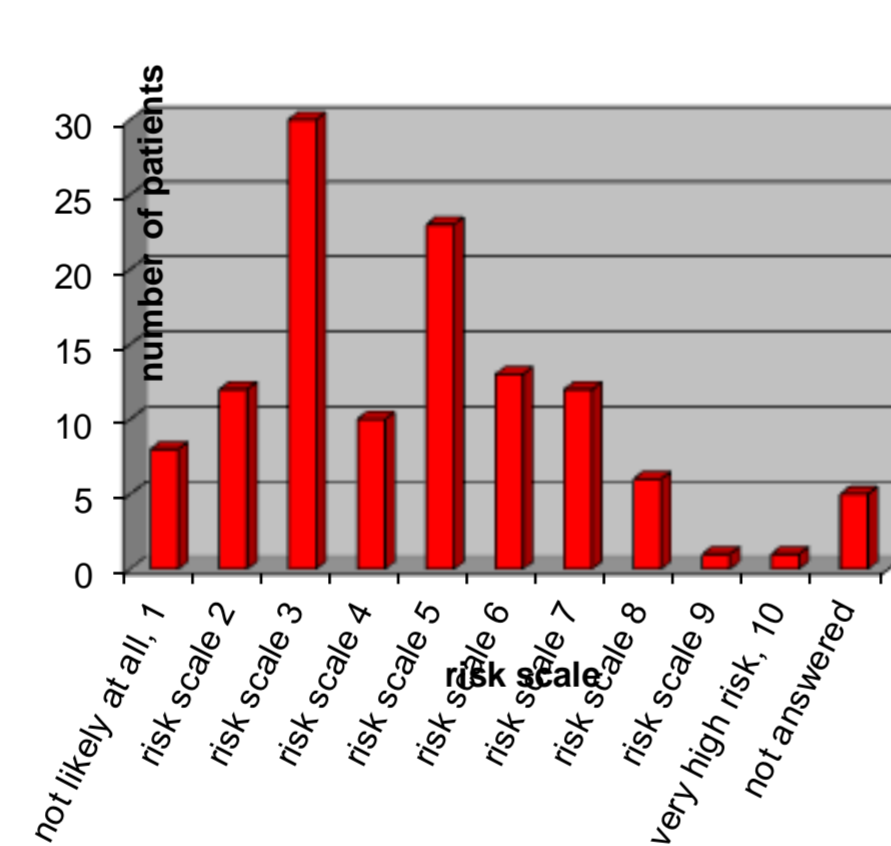
Graph 1: Ethnicity of participants in survey



Graph 2: When did you last have an HIV test?

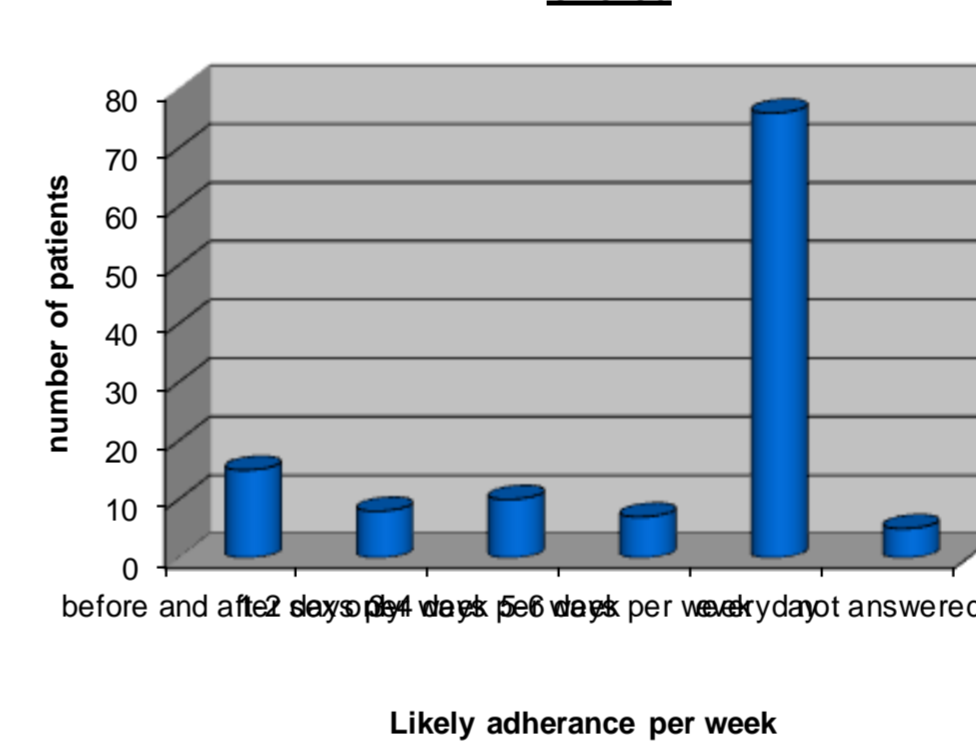


Graph 3: How likely are you of getting HIV (10 = highest risk)

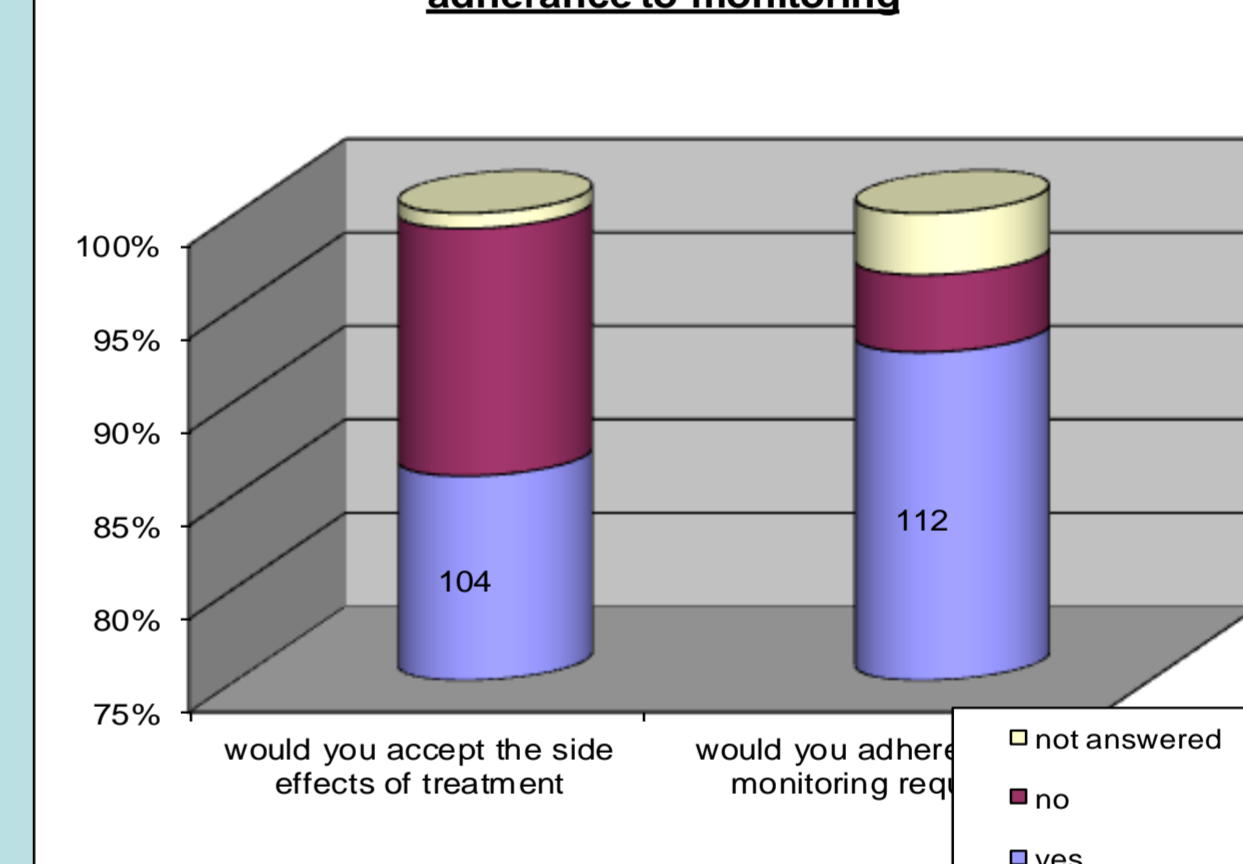


- As adherence to PrEP is important for it to be effective, we asked how likely patients were to adhere to daily treatment. Of the 101 patients who said they would take it daily, 75.2% said they would take it everyday. 23/101 (22.8%) felt they would be poor adherers. (Graph 8)
- 104/120 (86.7%) of patients felt that the side effect profile of PrEP were acceptable (Graph 9)
- 112/117 (92.7%) of patients felt that they would adhere to the monitoring process of attending for blood and urine tests every 3 months

Graph 8: Likely adherence to treatment if daily PrEP offered

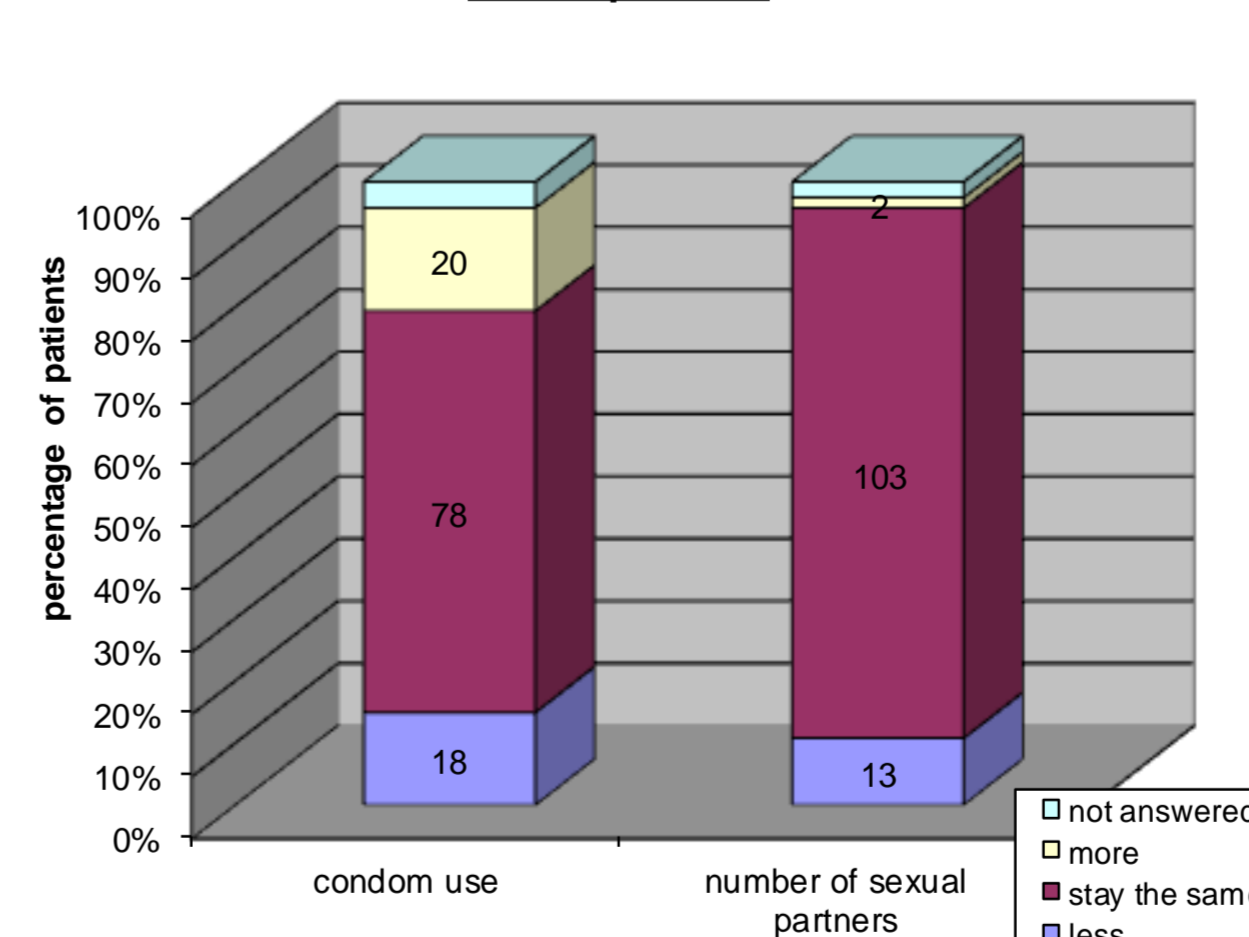


Graph 9: Acceptance of side effects and adherence to monitoring

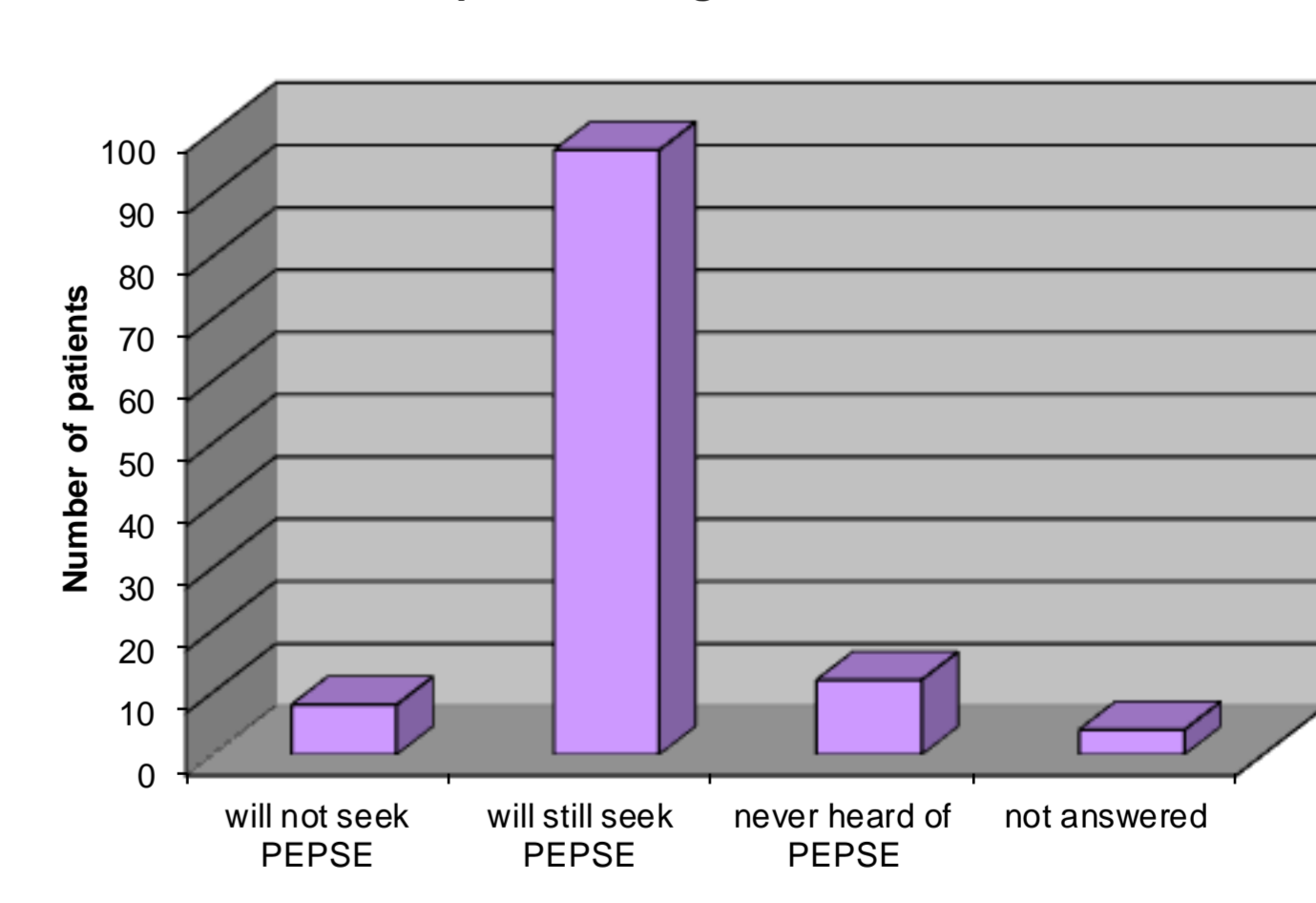


- As there is much contention regarding possible behavioural shifts towards sexual practices if PrEP were to be used, it is important to survey patients' perception towards this.
- 78/116 (67.2%) of patients said that taking PrEP would not change their use of condoms. Interestingly 20/116 (17.2%) felt that they would increase condom use, and 13/118 (11%) felt they would have fewer partners perhaps reflecting an increased awareness of risk whilst taking PrEP. No one said they would stop using condoms altogether. (Graph 10)
- 103/118 (87.3%) felt that while taking PrEP, they would not change the number of sexual partners, and only 2/118 (1.7%) felt that they would have more sexual partners. (Graph 10)
- Current recommendations if PrEP were to be used, stipulate that PEPSE should still be prescribed if required. 97/117 (82.9%) felt that they would still seek PEPSE, whilst taking PrEP but 8/117 (6.8%) felt that they would not seek PEPSE while on PrEP. 12/117 (10.3%) claimed to have never heard of PEPSE, implying that there is still room for improvement in current HIV prevention awareness and sexual health promotion strategies. (Graph 11)

Graph 10: Change in condom use and number of sexual partners



Graph 11: Change in attitude towards PEPSE



## Conclusion

- PrEP has been proven to be an effective prevention strategy for at-risk MSM in a number of clinical trials
- The patient group demonstrated a cohort who are at high risk of sexual acquisition of HIV in that they were MSM who practiced anal sex. In addition the survey showed that they had high numbers of sexual partners (range 0-100, average 9, mode 4 sexual partners in 12 months) and inconsistent condom use (4.1% never used condoms and 61.2% used condoms inconsistently). However, only 1/116 of patients rated themselves at being very high risk of acquiring HIV.
- 77.8% of patients had a negative HIV clinic within the past 12 months, and patients felt that staying seronegative was of high health priority. Attrition rates for the survey were good, reflecting an interest in PrEP.
- 36.4% of patients said they were very willing to take PrEP and only 14% said they would not take the treatment. Daily PrEP was the preferred regimen in 80% of patients of which 62.4% would take it for more than 6 months.
- Of those who would take daily PrEP, 75.2% of patients felt that they would adhere well to treatment. 86.7% and 92.7% of patients felt that the side effects and monitoring regime were acceptable to patients respectively.
- 67.2% of patients felt that while on PrEP, they would not change the frequency of condoms use, 87.3% would not have more sexual partners.

## References

- S McCormack et al. The British HIV Association/British Association for Sexual Health and HIV Position Statement on pre-exposure prophylaxis in the UK *International Journal of STD & AIDS* 2012; 23: 1-4
- Health Protection Agency. HIV in the United Kingdom. London: Health Protection Agency, 2011. See [http://www.hpa.org.uk/webc/HPAwebFile/HPAweb\\_C/1317131685847](http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317131685847) (last accessed 10 April 2012)