BACKGROUND:
- HIV pre-exposure prophylaxis (PrEP) is a crucial tool to prevent new HIV infections.
- Men who have sex with men (MSM) comprise the largest group of people who are at risk of acquiring HIV.
- Willingness to use PrEP (WTUP) is an important determinant of uptake.
- The current estimate of WTUP among PrEP naïve MSM and the factors affecting the same, need further assessment.

OBJECTIVE:
- To measure the pooled estimate of WTUP among PrEP naïve U.S.-based MSM.
- To review and categorize factors reported in these studies, to be associated with WTUP among PrEP naïve MSM, according to the social-ecological model.

METHODS:
- PubMed, Embase, Web of Science, CINAHL, and PsycINFO were searched. The search strategy contained MeSH terms for HIV, PrEP, willingness, and interest.
- Articles were included if they were published between January 2005—May 2022, reported quantitative data on WTUP among PrEP naïve U.S.-based MSM, and were available as full text and in English.
- Studies were excluded if they did not report original data (e.g., systematic reviews, meta-analyses, economic modeling).
- Meta-analysis was conducted to assess the pooled effect size of WTUP prevalence using a random effects model and heterogeneity in the pooled estimate was assessed.
- Factors affecting WTUP were reviewed and categorized into the individual, interpersonal, societal and public policy factors as per the social-ecological model.

META ANALYSIS RESULTS:
- Fifteen studies were included based on the inclusion and exclusion criteria, contributing twenty effect sizes relating to WTUP and twelve studies reporting factors associated with WTUP.
- Meta-analysis revealed a moderate pooled prevalence proportion for WTUP of 0.58 (95% CI: 0.54-0.61) (or 58 out of 100) among PrEP naïve MSM.
- The prediction interval of the overall estimate was 0.42-0.72.
- High inter-study heterogeneity (Q=548.104, \(I^2=90.1\)) was observed.

SYSTEMATIC REVIEW RESULTS:
- The majority of the studies reported individual (n=12) and relatively fewer studies assessed interpersonal level factors (n=5); public policy (n=4) or societal (n=1) factors associated with WTUP.
- Higher age was associated with lower WTUP.
- PrEP related factors associated with lower WTUP were:
  - Lower PrEP knowledge
  - Perception that PrEP was not beneficial
  - Concerns related to side effects from PrEP use
  - Concerns about need for continued adherence

SYSTEMATIC REVIEW RESULTS:
- A moderate pooled prevalence of WTUP emphasizes need for enhanced efforts to improve the same.
- PrEP interventions targeted towards PrEP naïve older adults, at risk of HIV, are needed.
- Pharmacists and healthcare providers play a positive role in improving WTUP.
- Incorporating such support services in future PrEP programs such as one-on-one counseling, text-based support and peer support, could be effective in improving WTUP among MSM.

REFERENCES: