

Pre-Exposure Prophylaxis Uptake, Adherence and Persistence Outcomes among Adolescents and Young Adults: A Global Systematic Review and Meta-analysis

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1. Background

- Pre-exposure prophylaxis (PrEP) is a highly effective intervention for preventing HIV infection.
- This review aimed to synthesize evidence related to PrEP care cascade outcomes among adolescents and young adults (AYA, 10-24 years old) to inform the development of tailored HIV prevention interventions within this population.

2. Methods

- Databases searched:** Six including PubMed, Embase and Scopus.
- Eligibility:** Peer-reviewed English articles published from January 1, 2010, to February 2022, without geographic limitation.
 - Studies that reported primary data on PrEP care cascade outcomes (adherence, acceptability & willingness to use, uptake, and adherence) among AYA.
- Data analysis**
 - Studies were grouped by stage of the PrEP care cascade (awareness, acceptability, uptake, and adherence) and pooled in a random effects model using R-software.
 - Data from qualitative studies were thematically synthesized using MAXQDA software.

3. Results

- Characteristics of included studies**
 - Out of 4545 de-duplicated studies screened, 87 were included.
 - 54 studies from HICs, 24 studies targeted adolescent and young men who have sex with men (AYMSM), and 22 engaged adolescent girls and young women (AGYW).
- PrEP providing **relief from fear of HIV infection** was the most cited facilitator of uptake, while, lack of **parental support**, low perceived HIV risk, and **fear of side effects** were the most cited barriers.



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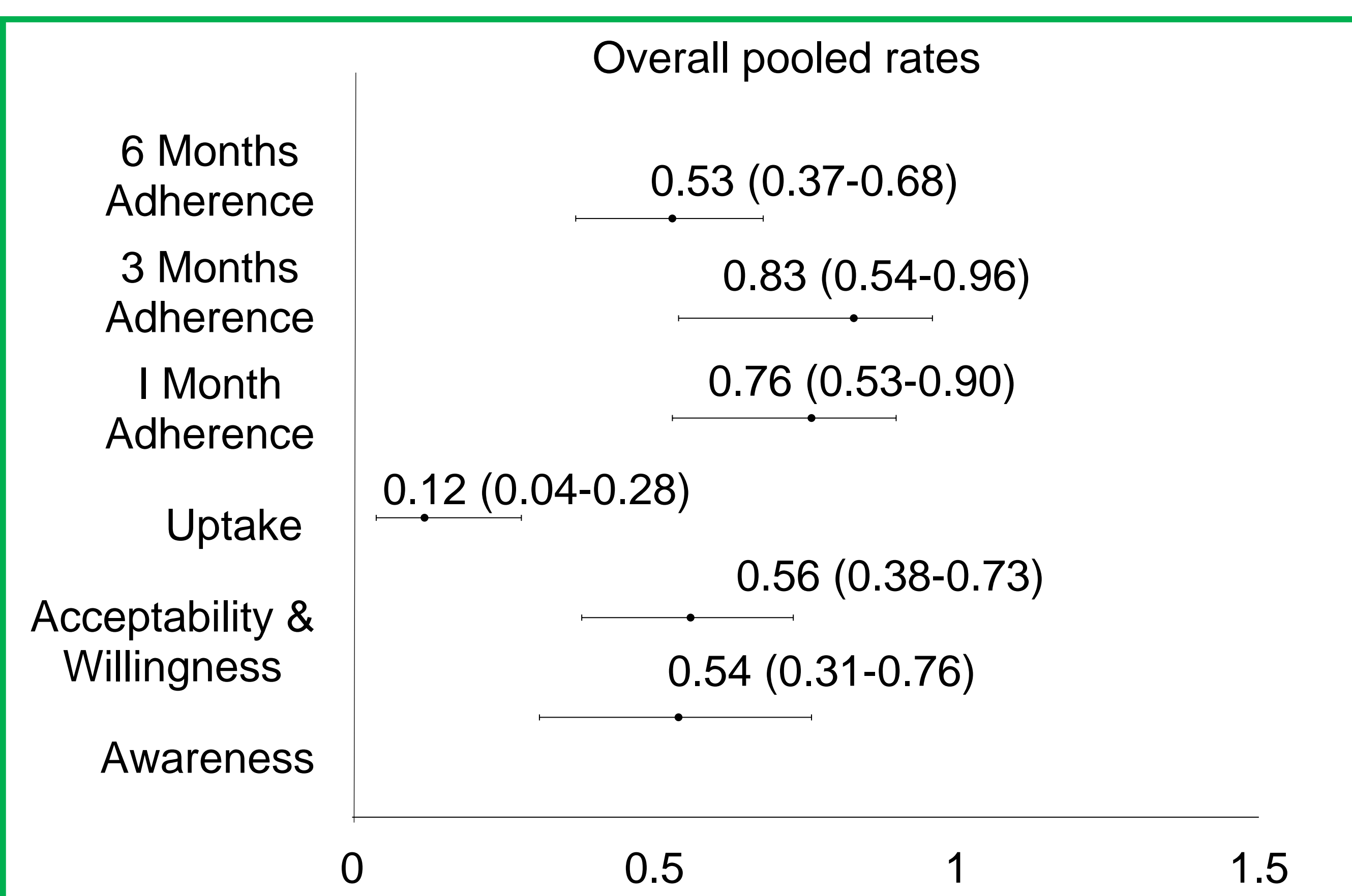


Figure 1. Forest plot showing the overall pooled proportions for PrEP care cascade outcomes among AYA aged 10-24 years.

Table 1. Summary showing pooled proportions for PrEP care cascade outcomes by adolescent population type.

Cascade Outcomes	AYMSM	AGYW	Mixed population
Awareness	48% (0.33-0.64)	15% (0.02-0.61)	65% (0.32-0.88)
Acceptability & Willingness	78% (0.37-0.96)	33% (0.27-0.40)	56% (0.21-0.85)
Uptake	7% (0.04-0.12)	15% (0.01-0.79)	36% (0.22-0.53)
Adherence			
1 Month	82% (0.57-0.94)	54% (0.54-0.60)	-
3Months	94% (0.57-0.99)	46% (0.43-0.49)	52% (0.44-0.60)
6Months	72% (0.47-0.88)	33% (0.18-0.52)	53% (0.30-0.69)

NB: data is presented as a pooled proportion (95%CI); AYMSM = Adolescent and Young MSM; AGYW = Adolescent girls and young women; Mixed population = includes adolescents and young adults of the general population.

4. Conclusion

- Compared to other youth and young adolescents, AGYW in LMICs have the worst PrEP outcomes.
- More tailored strategies that involve parents/guardians and stigma-reduction interventions are needed to scale up PrEP cascade outcomes among AYA, especially among AGYW, in LMICs.

Key Message

Adolescent girls and young women in LMICs have the worst PrEP care outcomes, possibly due to a disproportionate allocation of PrEP resources to LMICs relative to HIC, and current programs being centered on sexual and gender minority youths in most LMICs.

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