



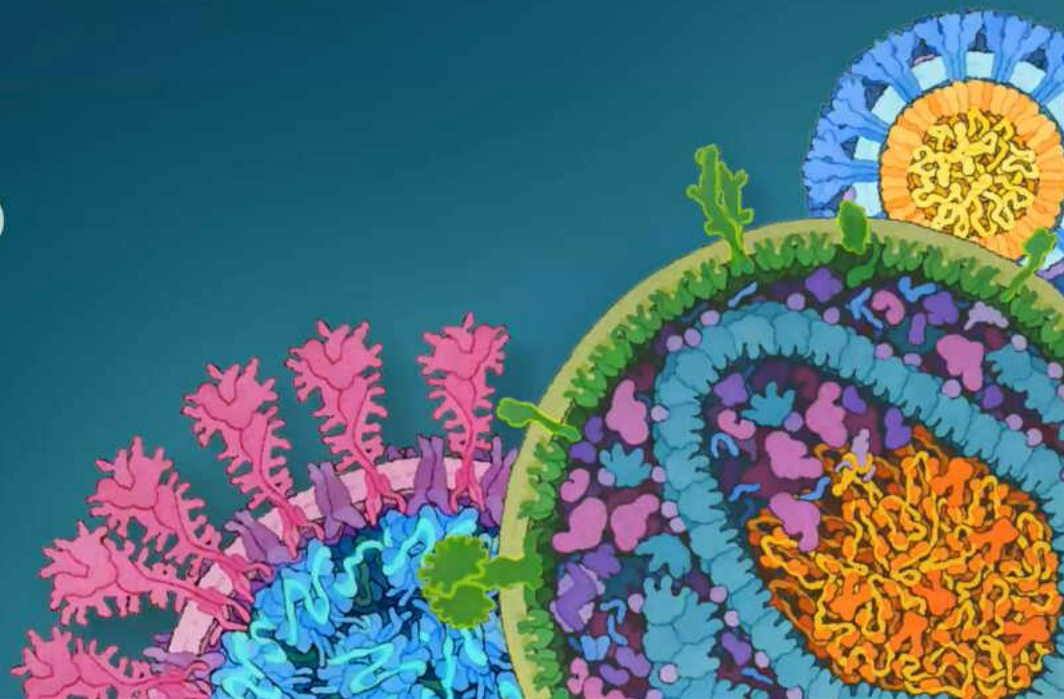
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Choice and Adherence to Dapivirine Ring or Oral PrEP by Young African Women in REACH/MTN034

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- Grant from MSD
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Introduction

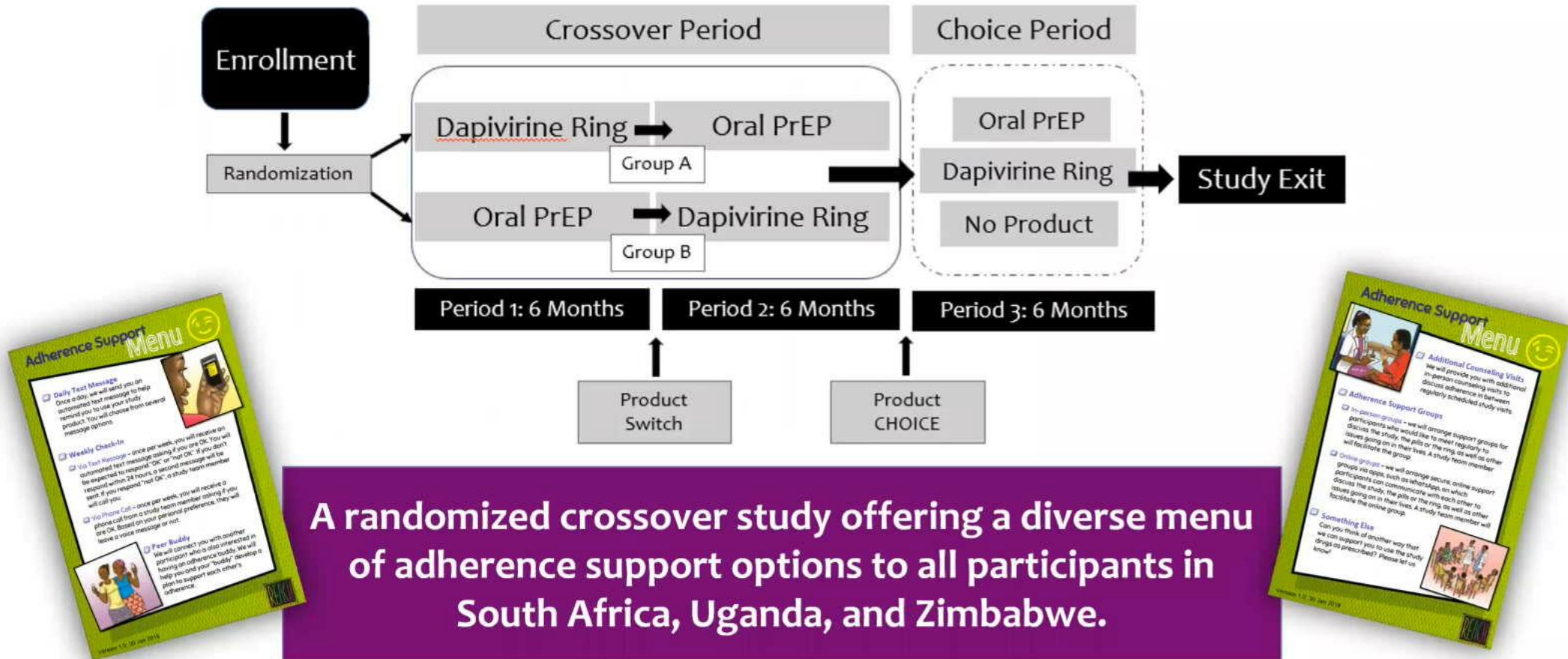


- Adolescent girls and young women (AGYW) account for most new HIV acquisitions in Africa
- WHO recommends daily oral PrEP and the monthly dapivirine vaginal ring (ring) for women at risk of HIV acquisition
- Given low adherence among AGYW in efficacy trials, we assessed choice of and adherence to the ring and oral PrEP among African AGYW in the MTN-034/REACH trial





REACH Study Design





Evaluating Adherence

Ring adherence

Based on estimated dapivirine release calculated using residual drug (RD) levels in returned rings



Non-use

- RD levels showing release of $<0.9\text{mg}$

Some use

- RD levels showing release of 0.9 to $<4.0\text{mg}$

Consistent with 28 days of use

- RD levels showing release of $\geq 4.0\text{mg}$

Oral PrEP adherence

Measured via tenofovir diphosphate (TFV-DP) levels in dried blood spots (DBS)



Non-use

- TFV-DP levels of $<16\text{fmol/DBS punch}$

Some use

- TFV-DP levels of 16-700fmol/DBS punch

High adherence

- TFV-DP levels of $\geq 700\text{fmol/DBS punch}$

We compared the proportion of visits with high adherence between the crossover and choice periods for each product

Participant Baseline Characteristics



	Cape Town, South Africa N=60	Harare, Zimbabwe N=60	Johannesburg, South Africa N=67	Kampala, Uganda N=60	Total N=247
Age	18.3	17.9	18.3	18.2	18.2
Not married	60 (100%)	36 (60%)	65 (97%)	53 (88%)	214 (87%)
Ever been pregnant	5 (8%)	41 (68%)	21 (31%)	32 (53%)	99 (40%)
Contraceptive commenced in last 70 days	17 (29%)	28 (47%)	22 (33%)	26 (46%)	93 (38%)
Secondary school	55 (92%)	55 (93%)	57 (85%)	22 (37%)	189 (77%)
In school	33 (55%)	14 (23%)	36 (54%)	9 (15%)	92 (37%)
Earns own income	2 (3%)	14 (23%)	6 (9%)	31 (52%)	53 (21%)

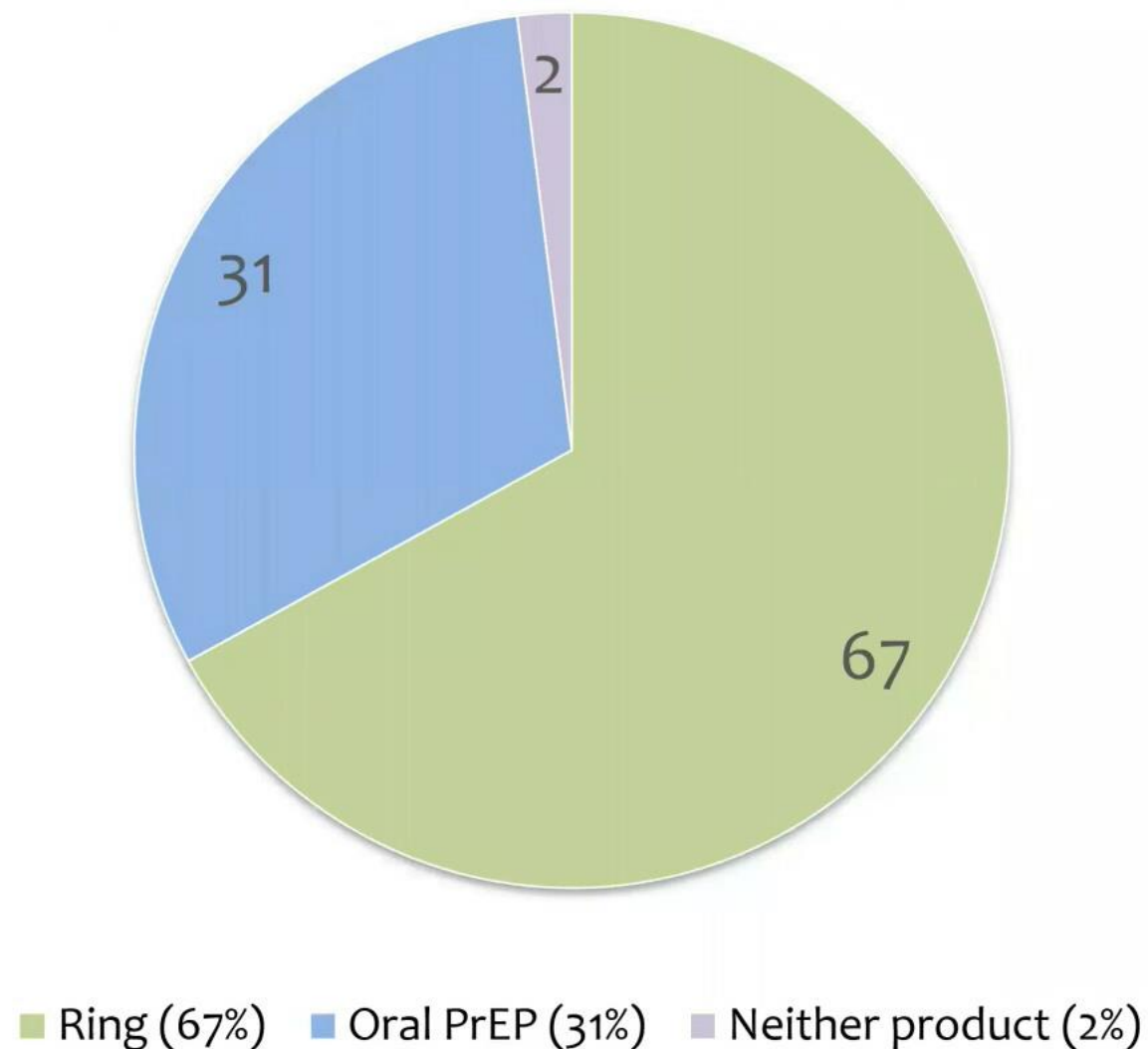
At screening, participants were assumed to have been assigned female sex at birth and were not asked to report their gender identity. However, required safety pelvic exams that occurred during the screening process would later confirm sex at birth.



Product Choice in Period 3

Of 227 (92%) participants who reached the choice period, more than 2/3 (152) chose the ring

Randomization sequence in the crossover period was not associated with product choice



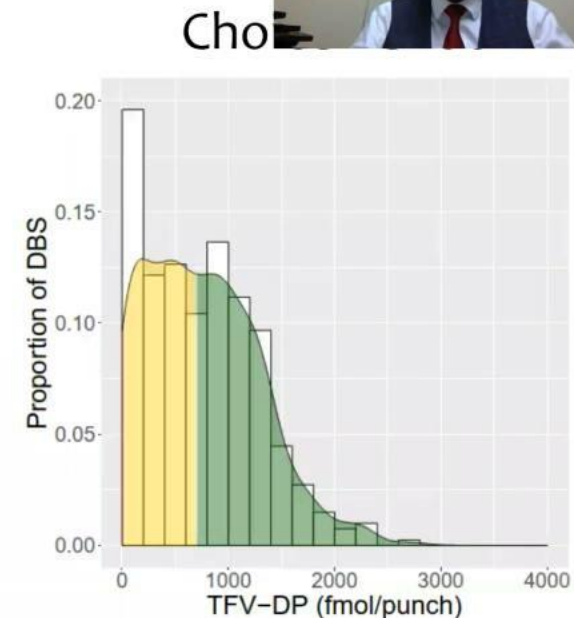
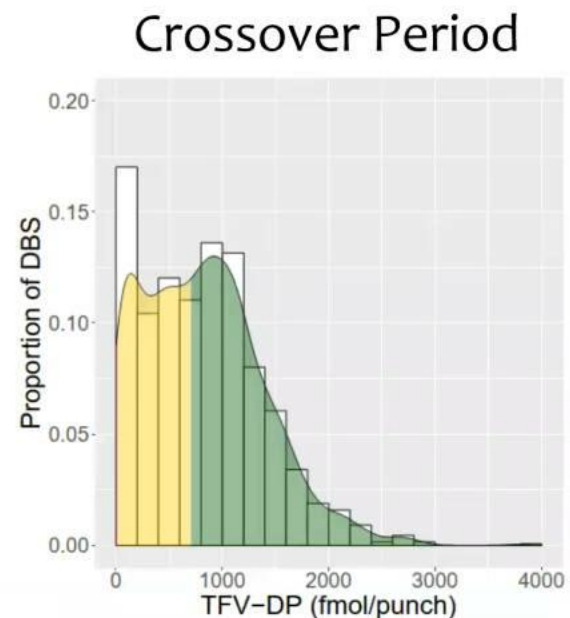


Comparing dapivirine ring use and oral PrEP adherence during the crossover and choice periods

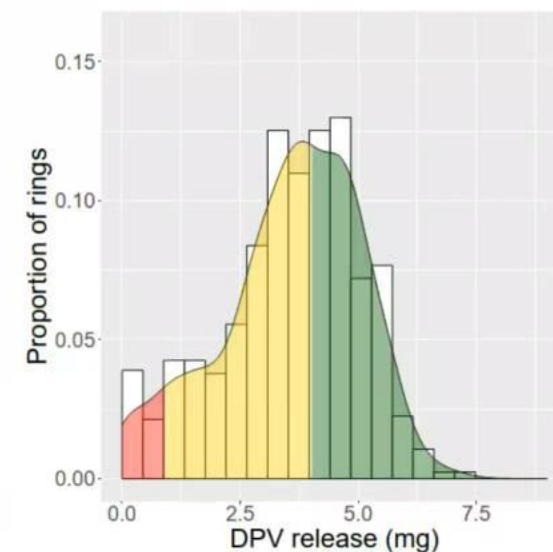
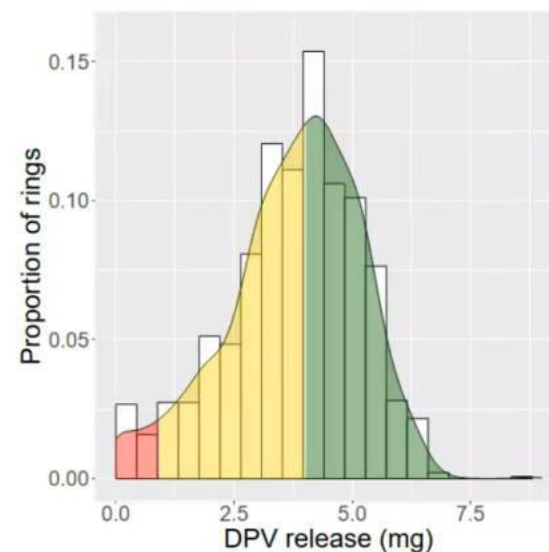
Overall, participants used both the ring and oral PrEP consistently in the crossover and choice periods, with “some” to “high” adherence.

Fewer than 5% of visits were categorized as no or low adherence to study product

Oral
PrEP



Ring



Adherence during the crossover period and subsequent product choice



Oral PrEP adherence	Chose oral PrEP	Chose ring/neither	p-value
Red/yellow at least once	32 (20%)	129 (80%)	<0.001
Always green	39 (58%)	28 (42%)	

Non-use (red): TFV-DP levels of <16fmol/DBS punch

Some use (yellow): TFV-DP levels of 16-700fmol/DBS punch

High adherence (green): TFV-DP levels of \geq 700fmol/DBS punch

Ring adherence	Chose ring	Chose oral PrEP/neither	p-value
Red/yellow at least once	134 (67%)	65 (33%)	0.85
Always green	19 (66%)	10 (35%)	

Non-use (red): RD levels showing release of <0.9mg

Some use (yellow): RD levels showing release of 0.9 to <4.0mg

Consistent with 28 days of use (green): RD levels showing release of \geq 4.0mg

High adherence to oral PrEP in the crossover period was strongly associated with choice of oral PrEP ($p < 0.001$)

No such association was observed for ring choice ($p = 0.85$)



Conclusions



- Among African AGYW who had experience with both ring and oral PrEP use, **about 2/3 opted to use the ring when given a choice of products**
- Participants with high adherence to oral PrEP in the crossover period were more likely to choose oral PrEP when given a choice
- Drug levels throughout the crossover and choice periods indicate partial to high adherence for both products – **higher than in previous studies**
- AGYW can make informed choices about HIV prevention products and can use products effectively with proper support





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