Preferences for Biomedical HIV Prevention Services of Alcohol Venue Patrons/Workers in East Africa

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BACKGROUND

- Alcohol-serving venues are high-risk sites for HIV transmission in East Africa.
- There are limited interventions to engage patrons and workers at these venues in biomedical HIV prevention services, and their service preferences are unknown.



Photo, Left: Venue selling commercial alcohol, Uganda
Photo, Right: Rooms for sex work at a venue in Uganda

RESEARCH OBJECTIVE

We evaluated HIV prevention service preferences among patrons and workers of alcohol-serving venues in rural Kenya and Uganda.

METHODS

- The OPAL trial (NCT05862857;2023-25) recruited adults (age≥18) at alcohol-serving venues for HIV screening at clinics in 8 rural communities in Kenya & Uganda
- We enrolled 7,744 adults who completed HIV screening and were referred to PrEP/PEP or ART.
- At screening, participants completed surveys assessing unhealthy alcohol use by past-3-month AUDIT-C score (≥3 women; ≥4 men) and HIV risk.
- In a subset of HIV-negative participants, we conducted best-worst scaling (BWS) surveys with stratified random sampling by those who started or declined PrEP/PEP.
- BWS surveys evaluated stated preferences on attributes of HIV prevention services (modality, location, provider, HIV testing, services); participants chose the best & worst option from six, 3-option permutations/attribute.
- To assess preference weights, we calculated:
  Best-worst scores: more positive value indicates option frequently chosen as best; more negative as worst
  Mean utility: from Hierarchical Bayesian models; values add to 100, ratio of values indicates relative preference (e.g. value of 10 twice as preferred as 5)

Alcohol venue patrons & workers in rural Kenya & Uganda expressed strong preference for injectable PrEP & clinic or home-based services

RESULTS

Table: HIV prevention service preferences from best-worst surveys, ranked per attribute by mean utility.

Option by rank	Best-worst score	‡Mean utility (95% CI)
Prevention Modality		
1. Injection every 8 weeks	0.69	40.9 (37.0-44.8)
2. Oral PrEP 2-1-1	0.20	23.4 (20.4-26.4)
3. Oral PrEP	-0.09	12.9 (10.2-15.7)
4. PEP	-0.13	10.3 (8.2-12.4)
5. Vaginal ring (women only)	-0.34	7.3 (5.6-9.0)
6. None of the options	-0.34	5.2 (4.0-6.3)
PrEP/PEP location		
1. At a clinic/health center	0.66	34.5 (32.5-36.5)
2. At home	0.48	29.5 (26.6-32.4)
3. From a private pharmacy	0.11	18.4 (16.1-20.6)
4. From a mobile van at/near bar	-0.15	10.4 (8.3-12.6)
5. None of the options	-0.28	5.7 (5.0-6.5)
6. Inside bar	-0.82	1.4 (0.3-2.6)
PrEP provider		
1. Doctor from the health center	0.62	32.7 (31.5-33.9)
2. Nurse from the health center	0.52	32.5 (30.8-34.3)
3. Your community health worker	0.35	24.6 (22.0-27.2)
4. None of the options	-0.20	5.9 (5.2-6.7)
5. Friend/peer who picks up refills	-0.39	3.8 (2.5-5.1)
6. Worker at a bar where you drink or work	-0.91	0.5 (0.0-1.1)
HIV testing		
1. Doctor from the health center	0.70	34.5 (32.0-37.1)
2. Nurse from the health center	0.38	30.5 (27.7-33.2)
3. Your community health worker	-0.10	13.7 (10.6-16.8)
4. Self-test outside clinic	-0.27	10.5 (7.3-13.6)
5. Self-test at clinic/health center	-0.27	7.7 (5.4-10.1)
6. None of the options	-0.44	3.1 (2.3-3.9)
Additional Services		
1. Screening for sexually transmitted infections	0.34	26.1 (22.8-32.5)
2. Screening for hypertension and diabetes	0.29	23.5 (20.8-26.2)
3. Alcohol counseling	0.10	18.7 (15.6-21.9)
4. Medication to help reduce alcohol intake	-0.03	15.8 (12.6-19.1)
5. Tuberculosis screening	-0.11	13.1 (10.7-15.4)
6. No other services	-0.58	2.7 (2.05-3.32)

‡from Hierarchical Bayesian models; scaled to add to 100

RESULTS (CONTINUED)

- Of 81 BWS survey participants: 39 (48%) were female, 18 (22%) age 15-24, 21/80 (26%) single, 52 (64%) Kenyan, 65/78 (83%) patrons and 13/78 (17%) workers.
- 54 (67%) reported unhealthy alcohol use
- 61 (75%) reported HIV risk or risk behaviors and 56 (69%) initiated and 25 (31%) declined PrEP/PEP
- Of prevention modalities, injectable PrEP was most preferred - nearly twice as much (mean utility 40.9 [95%CI 37.0-44.8]) as the 2nd ranked option of on-demand PrEP (23.4 [20.4-26.4]) - whereas receiving no prevention services was least favored (**Table 1**).
- PrEP/PEP and HIV testing provided by doctors/nurses and PrEP/PEP delivery at health centers were most preferred, though receiving PrEP/PEP at home or from community health workers also received high preference weights. Receiving PrEP at a bar or from a bar worker were least favored options.

CONCLUSIONS

- Alcohol venue patrons and workers in rural East Africa expressed high interest in injectable & on-demand PrEP
- They also expressed high interest in service delivery at clinics or in the community, but not at alcohol-serving venues where they socialize or work.
- Offering **expanded and flexible choice** of prevention modalities and community-based services for this high-risk population merits further evaluation, and may help increase use of biomedical HIV prevention

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PLAIN LANGUAGE SUMMARY

People at alcohol-serving venues in rural East Africa reported a preference for injectable medication to prevent HIV and to receive services in clinic or at home.